Fixed Medication Copayment Tiers

Requirements Specification Document



March 2016

Version 0.1

Department of Veterans Affairs

Revision History

Note: The revision history cycle begins once changes or enhancements are requested after the Requirements Specification Document has been baselined.

| Date | Version | Description | Author |
| --- | --- | --- | --- |
| 3/10/2016 | 0.1 | Initial Draft | FMCT Team: A. Zak and J. |

Artifact Rationale

The Requirements Specification Document (RSD) records the results of the specification gathering processes carried out during the Requirements phase. The RSD is generally written by the functional analyst(s) and should provide the bulk of the information used to create the test plan and test scripts. It should be updated for each increment.

The level of detail contained in this RSD should be consistent with the size and scope of the project. It is not necessary to fill out any sections of this document that do not apply to the project. The resources necessary to create and maintain this document during the life cycle of a large project should be acknowledged and clearly reflected in project schedules. Do not duplicate data that is already defined in another document or a section in this document; note in the section where the information can be found.

Instructions

| Activity | New Capability (1) | Feature Enhancement (2) |
| --- | --- | --- |
| **Field Deployment (A)** | Yes | Yes |
| **Cloud/Web Deployment (B)** | Yes | Yes |
| **Mobile Application (C)** | Yes | Yes |

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# Introduction

Based on the requirements in Proposed Rule 38 Code of Federal Regulations (CFR) Part 17 Copayments for Medications, beginning February 2017, the Department of Veterans Affairs (VA) proposes to amend its regulations concerning copayments charged to certain Veterans for medication required on an outpatient basis to treat non-service connected conditions. The VA currently charges non-exempt Veterans either $8 or $9 for each 30-day, or less, supply of medication. Under current regulations, a calculation based on the prescription drug component of the Medical Consumer Price Index (CPI-P) is used to determine the copayment amount in future years. This rulemaking eliminates the formula used to calculate future rate increases and establishes the following three classes of medications, identified as Tier 1, Tier 2, and Tier 3, beginning February 2017:

* Tier 1 = $5 for a 30-day or less supply of a medication;
* Tier 2 = $8 for a 30-day or less supply of a medication; and
* Tier 3 = $11 for a 30-day or less supply of a medication.

In addition to the rule, Pharmacy Benefits Management (PBM) recommends the addition of Tier 0 for excluded and exempt products with no copayment. The copayment cap on out-of-pocket expenses for VA outpatient medications is $700 per calendar year for Priority Groups (PG) 2-8. Through implementation of this rulemaking, it is expected that nearly 94% of copayment-eligible Veterans will not experience a price increase with this change. Furthermore, nearly 80% of copayment-eligible Veterans will receive savings of $1 to $4 per 30-day equivalent under the tiered copayment system. With the current prescribing pattern of 50% selected generics, 35% generics, and 15% brand-name drugs, these copayment amounts will produce tangible savings for most Veterans. This pricing change will encourage greater medical adherence and reduce, or eliminate, health risks associated with obtaining prescriptions from non-VA pharmacies.

In order to comply with this modification to Federal regulations, a redesign of the current structure of charges for first-party pharmacy claims is required.

## Purpose

The purpose of the Requirements Specification Document (RSD) is to record and capture the initial set of user stories that will be used to begin development of the fixed medication copayment tiers functionality.

The audience for this document is the Fixed Medication Copayment Tiers (FMCT) development team, stakeholders, business owners, and managerial authorities for the effort.

## Scope

This New Service Request (NSR) is concerned with updating Information Technology (IT) systems to conform with changes to copayments for qualified prescription medications within Veterans Health Information Systems and Technology Architecture (VistA), VA National Drug File, and VA Pharmacy Product System.

If approved, this effort could lead to an increase in the number of prescriptions filled at the VA Medical Center (VAMC) where the patient is treated. Increasing the affordability of prescription medications supplied by the VA, decreases the need for Veterans to seek outside sources for prescription benefits. To meet the objective of establishing medication copayment tiers, it will be necessary to modify the VA National Drug File (NDF), Outpatient Pharmacy software, the VA Pharmacy Product System (PPS), the VistA Integrated Billing (IB) software and related VistA Accounts Receivable (AR) software, and to allow for updating of the listing of outpatient medication tiers.

The Chief Business Office (CBO) requests updating IT systems to conform with changes to qualified prescription medications within VistA and VA National and Local Drug Files, to establish fixed copayment amounts depending on the class of medication (Tier 1, Tier 2 or Tier 3) while still maintaining the utility of the $700 copayment cap per calendar year for PG 2-8, as applicable, on an individual Veteran basis. PBM is requesting the addition of Tier 0 for excluded and exempt products with no copayment.

## References

The following documents and resources have been used for this RSD:

* [Fixed Medication Copayment Tiers Business Requirements Document (BRD)](http://vaww.yourserver.domain/pm/hppmd/FMCT/Documents/20150208%20Tiered%20Medication%20Copayment%20Structure%20BRD.doc)
* [Fixed Medication Copayment Tiers Requirements Traceability Matrix (RTM)](http://vaww.yourserver.domain/pm/hppmd/FMCT/Documents/20150208_Tiered_Medication_Copayment_Structure_RTM.xlsx)
* Meetings with VA SMEs in Pharmacy and CBO Revenue Operations

Additional documents referenced in the creation of this RSD include:

* [VA Handbooks 6500 Information Security Program v2](https://vaww.portal.domain/sites/vbaco-iso/VA%206500%20Handbooks/Forms/AllItems.aspx)
* [ProPath](http://vaww.oed.wss.domain/process/home.aspx)
* Section 508 checklists (1194.21, 1194.22, 1194.24, 1194.31 and 1194.41)
  + [Section 508 Support](http://www.ehealth.domain/508/resources_508.html)
  + [Resources for understanding and implementing Section 508](http://www.section508.gov/)
* [Program Management Accountability System (PMAS)](http://vaww.yourserver.domain/PMAS/Pages/default.aspx)
* [One-VA Technical Reference Model (TRM) v15.6](http://trm.oit.domain/TRMHomePage.asp)

# Overall Description

The functionality that will be added addresses the need for the VA to comply with this modification to Federal regulations through a redesign of the current structure for charges for first-party pharmacy claims to support implementation of three new regulatory approved copayment medication classes (Tier 1, Tier 2, Tier 3) for outpatient medications charges that are dependent on the medication class. In addition, Tier 0 has been requested to be added for excluded and exempt products with no copayment.

This pricing change will lower out-of-pocket costs, encourage greater medical adherence, and reduce or eliminate health risks associated with obtaining prescriptions from non-VA pharmacies.

## Accessibility Specifications

The 508 compliance status for all work will be carried out via approved vendors conducting self- certifications upon completion of compliance testing documentation. Compliance information will be required at the completion of each increment.

The Section 508 of the Rehabilitation Act of 1973 and Rehabilitation Act Amendments of 1998, mandate that all software developed by Federal agencies must allow access to, and use of, information and data by individuals with disabilities. Section 508 enhancements to FMCT ensures accessibility for users with various disabilities without impacting software usability for our primary audience of users.

The FMCT application will be updated to ensure Section 508 Compliance with respect to requirements specified in the following checklists:

* [1194.21 Software applications and operating systems](http://vaww.section508.domain/SECTION508/docs/1194_21_VASection508_web_checklist.doc)
* [1194.22 Web-based intranet and internet information and applications](http://vaww.section508.domain/SECTION508/docs/1194_22_VASection508_web_checklist.doc)
* [1194.31 Functional performance criteria](http://vaww.section508.domain/SECTION508/docs/1194_31_VASection508_functional_checklist.doc)
* [1194.41 Information, documentation, and support](http://vaww.section508.domain/SECTION508/docs/1194_41_VASection508_documentation_checklist.doc)

Additional information can be accessed [here](http://www.ehealth.domain/508/resources_508.html) or as otherwise specified.

The coding standards and naming conventions, along with the standard set of class libraries in the Information Technology (IT) Technical Reference Model (TRM), will be used in this development effort.

Checkpoints will be established to ensure that accessibility is incorporated from the earliest possible design, or acquisition phase, and successfully implemented throughout the project.

## Business Rules Specification

Business rules must be established in order to implement the fixed copayment medication tiers for outpatient medication charges that are dependent on medication classes. All medication classes must be assigned to a copayment medication tier of Tier 1, Tier 2, Tier 3, or Tier 0. PBM will identify the drug-tier relationships based on the proposed rules. FMCT will not tightly integrate business rules, to allow for annual/monthly changes to medication classes. Additional details and more specific business rules will be further recorded in the System Design Document (SDD).

## Design Constraints Specification

All software development by FMCT Developers will conform to technology standards as defined in the VA Technical Reference Model (TRM). FMCT enhancements will be developed and maintained using industry standard technologies. This project will add functionality that complements the existing VistA packages. All necessary security protocols and requirements necessary for interacting with this package, as well as others, are outlined later in this document.

## Disaster Recovery Specification

All applicable Pharmacy and Billing systems will continue following the Disaster Recovery procedures of the VA hosting environment supporting the application.

VA Handbook 6500.8 outlines the guidance for the Information System Contingency Planning (ISCP) process, and the IS Contingency Planning Assessment (ISCPA). The ISCPA created will be used in the development of the Disaster Recovery Plan, Business Continuity Plans (BCPs), and to help shape the development of future Information System (IS) designs and engineering. VA Handbook 6500.8 outlines the following five stages for conducting information system contingency planning:

1. **IS Contingency Planning Assessment:** Using the ISCPA methodology, identify and map IS Contingency Planning requirements through development of a Business Impact Analysis (BIA) and threat and vulnerability analyses;
2. **IS Contingency Planning:** Build ISCPs and DRPs to meet those requirements;
3. **Post Plans to GRC RiskVision:** Post IS contingency and DR plans to the GRC RiskVision;
4. **Train, Test, and Exercise:** Train operations staff in ISCP and DRP roles/responsibilities, test individual components of plans, and exercise complete IS Contingency and DR plans to validate plans work and update as necessary
5. **Post Test and Exercise Results to GRC RiskVision:** Post-test/exercise results to the GRC RiskVision database.

Data protection measures for the FMCT system, such as back-up intervals and redundancy, should be consistent with systems categorized as ***mission critical*** ***(12 hour restoration for Recovery Time Objective [RTO] and 2 hours for Recovery Point Objective [RPO]).***

The FMCT enhancements would require the performance of a Business Impact Analysis (BIA) to identify Critical Business Processes, FMCT consumer service requirements, and the Maximum Tolerable Downtime (MTD) for FMCT services. The completed BIA results should be used to determine if the current Disaster Recovery Plan (DRP) is appropriate for the FMCT enhancements and in alignment with VA Handbook 6500.8 guidelines.

## Documentation Specifications

The enhancements developed for the FMCT project will conform to the documentation specifications mandated by the Project Management Accountability System (PMAS) and ProPath. Documentation will potentially include, but is not limited to:

* User manuals for software;
* In-house application documentation (application requirements/program documentation, specifications/change control recommendations);
* Any vendor-supplied documentation;
* Standard operating procedures;
* Network diagrams and documentation on setups of routers and switches;
* Software and hardware testing procedures and results;
* System interconnection agreements;
* Hardware replacement agreements; and
* Vendor maintenance agreements and maintenance records.

As the FMCT project evolves and functionality is added, changed, or depreciated, corresponding updates to the relevant documents will be made including this RSD. This document is to be considered a living document with new information, screen modifications, reports and system option changes added as elaboration during various Agile Sprints is completed on the stories listed.

It is also expected that all documentation will be posted to any appropriate SharePoint sites, shared folders, or public sites for ease of access. Through the development process, Epics, User Stories, Requirements, Tasks, Test Cases and defects will be entered into Rational Team Concert (RTC) which will be used for the generation of artifacts and inserts into FMCT deliverables.

The documentation may also include technical training curricula, training tools, and manuals. A detailed training plan should be developed. The administration and deployment of the training plan will commence upon successful development and installation of the selected product.

## Functional Specifications

Functional requirements for the FMCT enhancements will be documented in accordance with Agile methodology, and, as such, the Business Needs will be addressed by one Theme (see Table 1), and one or more Epic Stories, which are further broken down into multiple User Stories. The requirements listed below are intended to serve as a description of the enhancements to the original development of the FMCT model. The numbers following RTC Epic, RTC, User Story, RTC Requirement are reference numbers assigned by the Rational Team Concert tool in order to locate them within the tool and within the Requirements Traceability Matrix.

Please refer to the [FMCT Business Requirements Document (BRD)](http://vaww.yourserver.domain/pm/hppmd/FMCT/Documents/20150208%20Tiered%20Medication%20Copayment%20Structure%20BRD.doc) for further details relating to Business Needs/Owner Requirements.

Table : FMCT Theme

| IDENTIFIER | THEME |
| --- | --- |
| 1.0 | As an FMCT Business Owner, I need to redesign the current structure of charges for first-party pharmacy claims, so I can implement new regulatory approved copayment medication tiers for outpatient medication charges that are dependent on medication classes. |

### Charges to VistA for a Fixed Copayment Based on a Tiered System

This section contains the Epics, User Stories and Requirements for the Business Needs to be supported within the VistA system. These business areas contain Integrated Billing (IB), Accounts Receivable (AR), National Drug File Management System (NDFMS) and Pharmacy Data Management (PDM). The need to have this information sent to The Central Data Warehouse (CDW) is also part of this requirement section.

#### 2.6.1.1 FMCT Business Owners want to charge a fixed outpatient medication copayment amount based on a tiered system of medication classes. (RTC Epic 279352)

**RTC Epic 279353** As a VistA IB user, I want the IB system to automatically charge a fixed outpatient medication copayment amount based on a tiered system of medication classes.

**RTC User Story 288839**

As a VistA IB user, I want the system to automatically calculate the assigned copayment amount for outpatient using the FMCT with designated copay costs.

**RTC Requirement 669553**

The system shall designate an assigned copayment amount for outpatient to include:

* Tier 0 = $0 for a 30-day or less supply of an exempt product/supply
* Tier 1 = $5 for a 30-day or less supply of a medication.
* Tier 2 = $8 for a 30-day or less supply of a medication
* Tier 3 = $11 for a 30-day or less supply of a medication

**RTC Requirement 680118** The system shall provide that Tier 1 will only contain items listed on the VANF.

**RTC Requirement 689204** The system shall provide a Tier field in IB to accept the 3 digit numeric code from NDF Copay COPAY TIER LEVEL.

**RTC User Story 279410**

As a VistA IB user, I want the IB system to provide the ability for modular additions that have multiple tiers so that I can add additional tier values, number of drugs, copayment amounts, if required by annual updates.

**RTC Requirement 669555**

The system shall provide the ability/flexibility for modular additions, if needed (e.g., additional tiers, number of drugs, copayment amounts, if required by annual updates)

**RTC Requirement 669556** The system shall provide a mechanism to set any modular additions, if needed.

**RTC User Story 281045**

As a VistA IB user, I want the IB system to provide the flexibility to set new items that can be locked by a key so each group can have its own value.

**RTC Requirement 669557** The system shall have the ability to lock the mechanism for modular additions with a key and have multiple tiers, so each group can have its own value

**RTC Requirement 669558** The system shall provide a manually-added outpatient medication copayment charge fill date for correct effective rate (based on COPAY TIER LEVEL if applicable).

**RTC Requirement 669559** The system shall use the medication copayment charge fill date to determine if there is a reduction of the copayment or not.

2.6.1.2 FMCT Business Owners want VistA AR functions to reflect new copayment tiers (RTC Epic 279417).

**RTC Epic 279419** As a VistA AR user, I want the AR system to display the appropriate tiered Copay charged amounts so that it reflects the new Fixed Medication copayment tiers.

**RTC Story 281105**

As a VistA AR user I want to be able to view the Fixed Medication Copayment Tier information on the appropriate screen so that I can ensure that the correct Copayment amount is charged to the patient.

**RTC Requirement 669785** The system shall display the tiered copayment amounts on the appropriate screen.

**RTC Story 281133**

As a VistA IB user I want to be able to view the Fixed Medication Copayment Tier information on the appropriate reports so that I can assess the various Copayment amounts charged to patients.

**RTC Requirement 669786** The system shall display the tiered copayment amounts on designated reports.

**RTC Story 281137**

As a VistA IB user I want system options to view the Fixed Medication Copayment Tier information so that I can assess the Fixed Medication Copayment Tiers for a medication.

**RTC Requirement 669787** The system shall provide options that reflect the tiered copayment amounts.

2.6.1.3 FMCT Business Owners want VistA IB functions to reflect new tiered prescription copayment charges. (RTC Epic 279329).

**RTC Epic 279334** As a VistA IB user, I want the IB system to incorporate the Fixed Medication Copayment Tiers so the appropriate tiered prescription copay charges are calculated.

**RTC Story 279765**

As a VistA IB user I want to replace the current prescription copay charges in IB so that the Fixed Medication Copayment tiers can be used to calculate the mandated copayments.

**RTC Requirement 669790** The system shall generate a prescription copay charge using the new amounts assigned to the Fixed Medication copay Tiers:

Tier 1 = $5,

Tier 2 = $8

Tier 3 = $11

with a COPAY EFFECTIVE DATE on or after February 2017.

**RTC Story 279351**

As a VistA IB user I want to be able to update VistA fields that populate the Patient Statement with current tier copayment amounts so that I can ensure the patient is charged the correct copay amount.

**RTC Requirement 769457** The system shall provide the ability to update VistA fields that populate the Patient Statement including fields associated with the Fixed Medication Copayment Tiers.

**RTC Story 280913**

As a VistA IB user I want to be able to view the Fixed Medication Copayment Tier information on the identified IB screen so that I can ensure that the correct Copayment amount is charged to the patient.

**RTC Requirement 669785** The system shall display the tiered copayment amounts on the designated IB screen(s).

**RTC Story 280914**

As a VistA IB user I want to be able to view the Fixed Medication Copayment Tier information on the identified IB reports so that I can assess the various Copayment amounts charged to patients.

**RTC Requirement 669786** The system shall display the tiered copayment amounts on designated reports.

**RTC Story 280916**

As a VistA IB user I want IB system options to view the Fixed Medication Copayment Tier information so that I can assess the Fixed Medication Copayment Tiers for a medication.

**RTC Requirement 669787** The system shall provide options that reflect the tiered copayment amounts.

**2.6.1.4 FMCT Business Owners want the Outpatient Pharmacy system to support utilization of copayment tiers (RTC Epic 279681)**.

**RTC Epic 279682** As an Outpatient Pharmacy user, I want the system to function in the designated manner so that it will support the utilization of the copayment tiers.

**RTC Story 290035**

As an Outpatient Pharmacy user, I want the system to calculate the copayment amount for a medication using the Fixed Medication Copayment Tier, the copay amount and the days supply.

**RTC Requirement 687466** The system shall calculate the copayment amount for a medication using the Fixed Medication Copayment Tier, the copay amount and the days supply.

**RTC Story 288757**

As an Outpatient Pharmacy user, I want the system to allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per drug.

**RTC Requirement 687466** The system shall allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per drug.

**RTC Story 288758**

As an Outpatient Pharmacy user, I want the system to allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per prescription.

**RTC Requirement 687465** The system shall allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per prescription.

**RTC Story 288759**

As an Outpatient Pharmacy user, I want the system to allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per patient.

**RTC Requirement 687464** The system shall allow an authorized user to reset a copay to a different COPAY TIER LEVEL in the local VistA instance per patient.

2.6.1.5 FMCT Business Owners want the NDFMS to support utilization of copayment tiers. (RTC 279672)

**RTC Epic 279673** As an NDFMS user, I want the NDFMS to be updated so that it supports the utilization of the copayment tiers.

**RTC Story 286347**

As an NDFMS user, I want a patch created to transmit (push) updated COPAY TIER LEVEL information to local VistA sites so they will have the current FMCT information.

**RTC Requirement 672417** The system shall allow auditing through FileMan to validate data received in XML message from PPS.

**RTC Requirement 684437** The system shall include COPAY TIER LEVEL, EFFECTIVE DATE, and END DATE updates when creating the NDFMS patch that is transmitted to the local VistA sites.

**RTC Story 287405**

As an NDFMS user, I want the NDFMS to contain the fields COPAY TIER LEVEL, COPAY EFFECTIVE DATE and COPAY END DATE so that it supports the utilization of the fixed medication copayment tiers.

**RTC Requirement 672415** The system shall provide the new fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE for use within the data file VA Product (50.68).

**RTC Requirement 672416** The system shall accept the fields TIER LEVEL, EFFECTIVE DATE and END DATE from PPS through a transmitted patch.

**RTC Requirement 689259** The system shall set the COPAY TIER LEVEL as a 3 digit numeric field and COPAY EFFECTIVE DATE and COPAY END DATE as date fields.

**RTC Requirement 684438** The system shall display the fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE as part of the drug information.

**RTC Story 288770**

As an NDFMS user, I want the system to enable auditing through FileMan to validate data received in XML message from PPS.

**RTC Requirement 672417** The system shall allow auditing through FileMan to validate data received in XML message from PPS DATE updates when creating the NDFMS patch that is transmitted to the local VistA sites.

2.6.1.6 FMCT Business Owners want the NDF Local tables to support utilization of copayment tiers.

**RTC Epic 279677** As an NDF Local site user, I want the NDF Local tables to be updated so they will support the utilization of the copayment tiers.

**RTC Story 288854**

As an NDFMS user, I want the NDFMS to contain the fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE so that it supports the utilization of the fixed medication copayment tiers.

**RTC Requirement 672415** The system shall provide the new fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE for use within the data file VA Product (50.68).

**RTC Requirement 684438** The system shall display the fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE as part of the drug information.

**RTC Requirement 684437** The system shall include COPAY TIER LEVEL, COPAY EFFECTIVE DATE, and COPAY END DATE updates when creating the NDFMS patch that is transmitted to the local VistA sites.

**RTC Requirement 672419** The system shall display the data fields COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE within the routine PSNAPIS: Pharmacy APIs.

**RTC Story 281267**

As an NDF Local site user I want the system to display COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE in the local VistA pharmacy option Inquire to VA Product Info for Local Drug [PSNLOOK] so that I may view the assigned values for these fields.

**RTC Requirement 684440** The system shall provide support the display of the data fields COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE within the options Inquire to VA Product Info for Local Drug [PSNLOOK].

**RTC Requirement 684441** The system shall display the designated number of lines of Medication Tier data when viewing the fields.

**RTC Story 287415**

As an NDF Local site user I want the system to display COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE in the local VistA pharmacy option Inquire to National Files [PSNACT] to display COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE so that I may view the assigned values for these fields.

**RTC Requirement 685769** The system shall provide support the display of the data fields COPAY TIER LEVEL EFFECTIVE DATE, and COPAY END DATE within the option Inquire to National Files [PSNACT].

**RTC Requirement 684441** The system shall display the designated number of lines of Medication Tier data when viewing the fields.

**2.6.1.7 FMCT Business Owners want the PDM system to support utilization of copayment tiers. (RTC 279683)**

**RTC Epic 279684** As a PDM user, I want PDM to be updated so that it supports the utilization of the copayment tiers.

**RTC Story 288795**

As a PDM user, I want PDM to display the FMCT fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE in the option Inquire to National Files [PSSLOOK].

**RTC Requirement 672427** The system shall display the data fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE in the option Inquire to National Files [PSSLOOK].

**RTC Story 288798**

As a PDM user, I want PDM to display the FMCT fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE in the option Data Enter Edit [PSSDEE] so that the tier shows when a local item is being matched to an NDF item.

**RTC Requirement 675772** The system shall display the data fields COPAY TIER LEVEL COPAY EFFECTIVE DATE and COPAY END DATE in the option Drug Enter Edit when a local drug is being matched to a national drug.

**2.6.1.8 FMCT Business Owners want the CDW to support utilization of copayment tiers. (RTC** **279685 )**

**RTC Epic 279687** As a CDW user, I want the CDW to be updated so that it will support the utilization of the copayment tiers.

**RTC Story 290094**

As a CDW user, I want the CDW to properly monitor of the COPAY TIER LEVEL assignments, where applicable (e.g., DIM.LOCALDRUG and DIM.NATIONAL DRUG).

**RTC Requirement 672428** The system shall allow for the proper monitoring of the COPAY TIER LEVEL assignments, where applicable (e.g., DIM.LOCALDRUG and DIM.NATIONAL DRUG).

**2.6.1.9 FMCT Business Owners want to automatically release copay charges for patients. (RTC 279688 )**

**RTC Story 279689**

As a VistA IB user, I want the VistA IB to automatically release copay charges for patients, when appropriate.

**RTC Requirement 672429** The system shall automatically release copay charges for patients, when:

• The patient has no billable third-party insurance for the copay date.

• Processing the Buffer File and no Rx coverage has been added.

**RTC Requirement 672430** The system shall automatically release copay charges if the patient only has TRICARE or CHAMPVA and no other billable insurance (identified by the type of plan, as well as plan coverage limitations).

### Charges to Pharmacy Product System – National (PPS-N) for a Fixed Copayment Based on a Tiered System

* + - 1. FMCT Business Owners want the PPS to support utilization of copayment tiers.

**RTC Epic 286878** As a Pharmacy Product System (PPS) user, I want PPS-N updated to support the utilization of the copayment tiers.

**RTC Story 286899**

As a PPS-N User, I want the ability to assign or edit copay tier levels, and associated effective and end dates, on existing VA products.

**RTC Requirement 686737** The National data tab of PPS-N system shall provide the capability to assign a copay tier level with associated effective and end dates to existing VA products.

**RTC Requirement 686738** The system shall allow the user to select from a dropdown list containing copay tier levels defined in PPS (initially 0, 1, 2, or 3)

**RTC Story 286908**

As a PPS-N User, I want the ability to assign a copay tier level, with an associated effective and end date, to new VA products I create.

**RTC Requirement 686739** The add product workflow in PPS-N shall provide the capability to assign a copay tier level with associated effective and end dates to a newly created VA product.

**RTC Story 286925**

As a PPS-N User, I want the product’s copay tier levels with associated effective and end dates added to the product’s A-Z tab.

**RTC Requirement 686796** The A - Z tab in PPS-N shall provide the capability to assign/edit copay tier levels with associated effective and end dates to existing VA products.

**RTC Story 287221**

As a PPS-N User, I want the ability to define copay tier levels, and manage the associated data.

**RTC Requirement 686733** The system shall provide the capability to search for existing copay tier levels.

**RTC Requirement 686735** The system shall provide the capability to add new copay tier levels and associated descriptions and inactive dates.

**RTC Requirement 686736** The system shall provide the capability to modify the description or the item status associated with an existing tier level.

**RTC Story 287098**

As a PPS-N User, I want the current tier's effective date to be one calendar day later than the prior tier's end date, so that VA products will only have one active tier at a time.

**RTC Requirement 686801** The system shall only accept effective dates that are one day later than the prior tier's end date.

**RTC Requirement 686803** The system shall allow the user to modify previously entered effective dates and end dates.

**RTC Story 287188**

As a PPS-N User, I want a warning message displayed if I enter an effective date for a copay tier that is less than 30 days from the current date.

**RTC Requirement 686810** The system shall warn the user if they enter an effective date that is less than 30 days from the current date.

**RTC Story 286986**

As a PPS-N user, I want the product table modified to accommodate the tier levels I assign to products.

**RTC Requirement 686811** The system shall provide a storage area for copay tier levels, effective dates, and end dates assigned to products.

**RTC Story 286993**

As a PPS-N user, I want a new table added to the EPL database to accommodate tier level definitions.

**RTC Requirement 686822** The system shall provide a storage area for the field copay tier level, tier level description, inactive date, item status, and new item request.

**RTC Story 287001**

As a PPS-N user, I want the assigned or updated copay tier information on a product passed to NDFMS.

**RTC Requirement 686813** They system shall include tier level, effective date and end date on the XML message sent from PPS-N to NDFMS.

**RTC Story 287193**

As a PPS-N user, I want business rules and validations applied when a product’s copay tier information is assigned or edited.

**RTC Story 287069**

As a PPS-N User, I want the ability to search for products based on the product's tier level.

**RTC Requirement 686814** The system shall provide the ability to search VA products by Copay tier level.

**RTC Story 287072**

As a PPS-N User, I want the ability to sort the product search results by tier level.

**RTC Requirement 686815** The system shall allow the results of product searches to be sorted by tier level.

**RTC Story 286946**

As a PPS-N User, I want the updates I make to the product's copay tier information displayed on the product's history tab.

**RTC Requirement 686817** The system shall display all changes made to a product's copay tier information in the history tab of the product.

**RTC Story 287205**

As a PPS-N user, I want a report that displays products that had changes made to their copay tier data.

**RTC Requirement 686818** The system shall provide a report of changes made to a product’s copay tier data.

**RTC Story 287021**

As a PPS-N User, I want the ability to assign and/or edit the copay tier levels of multiple VA products at once.

**RTC Requirement 686823** The system shall provide the capability to assign/update the copay tier information for multiple products at once.

**RTC Story 287059**

As a PPS-N user, I want the VA product’s tier data initially populated with data I provide on an Excel spreadsheet

**RTC Requirement 686824** The system shall provide a method to initially populate the copay tier information on VA products.

**RTC Story 287207**

As a PPS-N user, I want to know when FDB makes changes to products, such as a status change from branded to generic, that may necessitate a change to the product’s copay tier level.

**RTC Requirement 686820** The system shall display FDB changes to products that may necessitate a change in the product's copay tier level.

## 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 GUI specifications include the following:

* User acceptance training and testing tools include User prompts to guide the use of the application so that minimal technical support is needed by the user.
* User interfaces are built with the VA logo and color scheme to the fullest extent possible. The VA 6102 Handbook or the [VA Media Management Office](http://vaww1.domain/WEBCOM/index.asp) is used as a reference.

The GUI allows the user to view data from multiple sources and includes:

* Integrated display of structured and unstructured data
* Rich data visualization and graphical display of data
* Ability to switch between tabular and graphical data views
* Ability to interact with displayed data to obtain additional details related to the data and source of the data
* User customizable components and settings

The FMCT solution includes advanced and up-to-date searching, to include:

* Fast, Google-like, Lucene search functionality with auto-complete and real-time display of matched results during typing
* Search history

The FMCT solution includes advanced filtering capabilities, to include:

* Filtering of data tables, lists, and grids
* Filtering of search results

## Multi-divisional Specifications

The PPS-N 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, the 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).

The FMCT system enhancements will not change the multi-divisional specifications of the other Pharmacy and Billing systems.

## Performance Specifications

Since the FMCT project involves enhancements in the VistA IB, Pharmacy, and other VistA applications, the standard Service Level Requirements (SLRs) for the VistA systems, in general, should be utilized.

### Performance and Capacity

In accordance with VistA standards, the FMCT enhancements’ performance and capacity will need to meet the following criteria, in addition to the criteria shown in Appendix A of this document.

Table 12: Service Level Requirements – Performance and Capacity

| **Epic 1.11:** In accordance with VistA standards, the FMCT enhancements’ performance and capacity will need to meet the following criteria. | | | |
| --- | --- | --- | --- |
| NONF ID | SLR Question | SLR Criteria | Description |
| 1.11.1 | How many Users will be on the system hourly? | 101-1000 (small facility) >1000 (medium to large facility/integrated sites) | Enhancements proposed will not increase the number of Users on the system. |
| 1.11.2 | How many transactions will each average User perform each hour? | *>10* Based on User’s role and access level. | Enhancements proposed in this document, independently, will not increase the number of transactions on the system. |
| 1.11.3 | What are the anticipated peak User-times during the day? | Business day | Please see the SAGG performance reports. The standard SLRs for the VistA system, in general, should be utilized. |
| 1.11.4 | What is the anticipated peak transaction load (when do you think there will be the most transactions performed on the system) during the day? | Business day | Please see the SAGG performance reports. The standard SLRs for the VistA system, in general, should be utilized. Enhancements proposed in this document, independently, will not increase the peak transaction load performed on the system. |
| 1.11.5 | How many new Users will be added in one year? | 0-100 per facility | New IB and Pharmacy Users at a typical VHA healthcare facility will be less than 100 for the period of one year. |
| 1.11.6 | How many more, if any, transactions will be added in one year? | 0-5 transactions  Based on User’s role and access level. | Enhancements proposed in this document, independently, will not increase the number of transactions on the system. |
| 1.11.7 | What kind of information will be stored (specify average of each kind per month)? | Monthly Pharmacy Data Standardization patch updates, which occur at present, will include information related to the new copay pricing tiers. | Enhancements proposed in this document will include new information related to a particular drug’s pricing tier and will be stored along with the individual price for each tier (in a reference file). Drugs may change copay tiers on an infrequent basis. |
| 1.11.8 | What kind of search capacity is required? | Medium (11-1000 per hour) | The standard SLR for VistA should be utilized. |
| 1.11.9 | What type of system(s) is/are required? | Local (regional) | Enhancements in the IB, Pharmacy, and other VistA applications shall be made in order to conform to the new pricing requirements put forth by VA and the Government Accountability Office (GAO). |
| 1.11.10 | Is there a need for heavy application reporting? If yes, when? | None | The need for heavy application reporting is not anticipated in relation to the enhancements to IB, Pharmacy, and other VistA applications. |

### Availability

In accordance with VistA standards, the FMCT enhancements’ availability will need to meet the following criteria, in addition to the criteria shown in Appendix A of this document.

Table 13: Service Level Requirements – Availability

| **Epic 1.12:** In accordance with VistA standards, the FMCT enhancements’ availability will need to meet the following criteria. | | | |
| --- | --- | --- | --- |
| NONF ID | SLR Question | SLR Criteria | Description |
| 1.12.1 | How much time should the system be available (and how much down time is acceptable due to incident [unexpected] outage)? | 99.9% (8.76 hours down time) | The application shall be available 24 hours a day, seven days a week, with an uptime of 99.9%. The SLR for the VistA system, in general, will be utilized. |
| 1.12.2 | When should the system be available (what will be the core operating hours of the system)? | 24x7 | The application shall be available 24 hours a day, seven days a week, with an uptime of 99.9%. The core operating hours are 0600 to 1800 for most activity. However, inpatient activity occurs on a 24-hour basis. |
| 1.12.3 | How soon should the system fully recover from an outage? (Includes Mean Time to Restore [MTRS]) | 2-8 hours (if outages occur in multiple VistA instances)  Minutes (if outage occurs at an individual VistA outage) | Current “fail soft” practices and procedures should be followed in the same manner as that for the VistA system in general. VA Office of Information (OI) contingency plans, recovery plans, and emergency procedures are followed. |
| 1.12.4 | How much data will be restored when outage is recovered? | The standard SLR for the VistA system should be utilized. | Current “fail soft” practices and procedures should be followed in the same manner as that for the VistA system in general. VA Office of Information (OI) contingency plans, recovery plans, and emergency procedures are followed. |
| 1.12.5 | What time period should be considered for maintenance periods? | After hours (1800 to 0600 hours) | All system updates and scheduled maintenance should occur between the hours of 1800 and 0600, when clinical usage would be lightest. Weekends can also be considered maintenance periods for intensive upgrades, etc. VistA SOPs are followed. |
| 1.12.6 | What standard time zone will the system operate in? | All time zones | VistA systems are used at every VHA healthcare facility in the Continental United States, Alaska, Hawaii, and the Philippines. VistA systems are capable of communicating with each other and performing Distributed Data Processing (DDP) tasks, regardless of time zones. |

## Quality Attributes Specification

The FMCT enhancements will follow ProPath guidelines, including quality reviews for requirements, design, code, test plans/cases/executions, and other document deliverables.

It will comply with the quality specifications set forth by the PMAS quality specifications. The following types of testing will be performed to assess the quality of the solution:

* Unit testing
* Integration / functional testing
* User Acceptance Testing (UAT)
* Section 508 testing
* Performance testing

Overall quality will be ensured through the weekly meetings of the FMCT Integrated Project Team (IPT), reviewing test results, thorough progress reviews with the business customers/Subject Matter Experts (SMEs), and PMAS milestone reviews.

## Reliability Specifications

The system shall be available 24 hours a day, seven days a week, with an uptime of 99.9%. The core operating hours are 0600 to 1800 for most activity. However, inpatient activity occurs on a 24-hour basis. The standard SLRs for the VistA system, in general, should be utilized.

## Scope Integration

The proposed enhancements will perform at the same specifications as the currently deployed versions of the VA National Drug File (NDF), the VA Pharmacy Product System (PPS), the VistA IB software, and related VistA AR software.

## Security Specifications

The Federal Information Processing Standard 199 (FIPS 199), *Standards for Security Categorization of Federal Information and Information Systems*, defines the security categories, security objectives, and impact levels to which National Institute of Standards and Technology (NIST) Special Publication (SP) 800-60 Volume 1 Revision 1, maps information types. A FIPS 199 analysis was completed for the proposed FMCT enhancements and it has been determined that the security categorization is ***MODERATE*** in accordance with FIPS 199. The tables below (for management controls, operational controls, technical controls, and privacy controls, respectively) include the relevant references, publications, and directives based on this categorization**.**

The following table contains the FMCT security requirements.

Table 14: FMCT Security Requirements

| **Req. ID** | **Requirement** |
| --- | --- |
| SEC-01 | A FIPS 199 analysis shall be completed to determine the system security categorization as Low, Moderate, or High. |
| SEC-02 | The system Security Plan (SSP) shall be developed in accordance with the system security categorization. |
| SEC-03 | Security and Privacy controls implementation shall comply with VA Handbook 6500, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| SEC-04 | The system shall be designed to deny anonymous access. |
| SEC-05 | The system shall use encrypted links whenever possible. |
| SEC-06 | The system shall use data encryption in compliance with VA standards/mandates. |
| SEC-07 | The system shall leverage the existing VA authentication and access control model for User access. |
| SEC-08 | The system shall ensure only secured and authorized access, according to existing  VA standards, to any VA resources when plugged in to any external components or services. |
| SEC-09 | The system shall be designed to be Health Insurance Portability and Accountability Act (HIPAA) information security compliant. |

## System Features

The System Features are listed below, but are not limited to these features.

Table 15: System Features

| **IDENTIFIER** | **Description** | **System Features** |
| --- | --- | --- |
| 495497 | Provide the ability to charge a fixed outpatient medication copayment amount based on a tiered system of medication classes. | * Create * Update/Edit * Delete * Approve * Print * Save * Review * Search * Auditing * Reporting * Monitoring * Status * Performance Reporting capabilities |
| 495498 | Update VistA AR functions to reflect the new copayment tiers. |
| 495499 | Update VistA IB to the new tiered prescription copay charges. |
| 495500 | Update applicable pharmacy systems to support utilization of medication tiers. |  |
| 387775 | Provide the ability for the VistA IB software application to automatically release copay charges for patients, when appropriate. |  |

## Usability Specifications

FMCT usability will adhere to an industry recognized User Interface (UI) Best Practices Guideline or Style Guide; for example, first follow UI guidelines for the development platform. In instances where platform guidelines are not available, adhere to VA’s Best Practices Guidelines/Style Guide.

**Performance measures** – See [Performance Specifications](#_Performance_Specifications)

**Training** *–* Formal training on the enhancements to the systems will not be required. However, Users will need to be educated on the new fixed copayment tier amounts and rules.

# Purchased Components

No new components will be purchased at this time.

# Estimation

The Estimation methodology for this effort is still to be determined, pending further discussions with VA personnel.

Project Software Functional Size and Size-Based Effort and Duration Estimate

Application

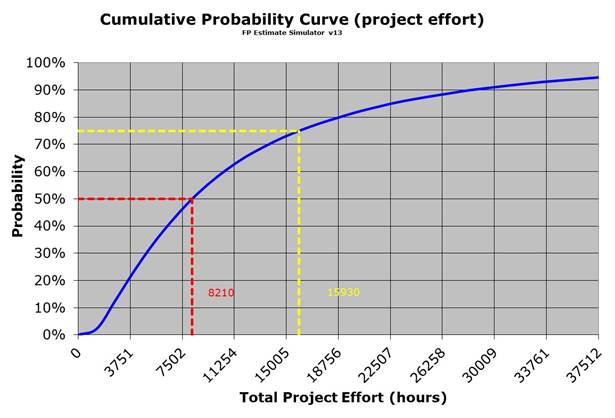
| Item | FMCT | B | C | D | E | Total |
| --- | --- | --- | --- | --- | --- | --- |
| **Counted Function Points** | **287** |  |  |  |  | **287** |
| **Estimated Scope Growth**  This project estimate covers DME activities from the PMAS Planning State entry MS1 through MS4.   Note it does not cover marginal or mandatory sustainment activity. |  |  |  |  |  |  |
| **Estimated Size at Release** | **373** |  |  |  |  | **373** |

| Size-Based Effort Estimates | Labor Hours | Probability |
| --- | --- | --- |
| **Low-Effort Estimate – With indicated probability, project will consume no more than:** | **8210 hours** | **50%** |
| **High-Effort Estimate – With indicated probability, project will consume no more than:** | **15,930 hours** | **75%** |

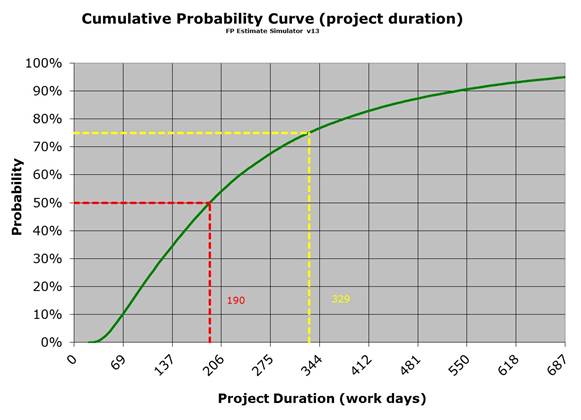
| Size-Based Duration Estimates | Work Days | Probability |
| --- | --- | --- |
| **Low-Duration Estimate – With indicated probability, project will consume no more than:** | **190 business days** | **50%** |
| **High-Duration Estimate -- With indicated probability, project will consume no more than:** | **329 business days** | **75%** |

Now, we will focus on the effort estimate.  The curve below allows you to plan to a specific level of effort, provided that you also accept the associated risk.  For example, there is a 75% probability that this project will consume no more than 15,930 hours of Total Project Effort (shown in the graph below as the dotted yellow line).  However, there is also a 1 in 4 chance that it consumes more than 15,930 hours.

Figure : Cumulative Probability (“S-curve”) Chart

****

Finally, we will focus on the project’s duration.  The curve below allows you to plan to a specific duration, provided that you also accept the associated risk.  For example, there is a 75% probability that this project will complete in no more than **329 business days** (shown in the graph below as the dotted yellow line).  However, there is also a 1 in 4 chance that it will complete in more than **329 business days**.

****

# Approval Signatures

REVIEW DATE: <date>

SCRIBE: <name>

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Integrated Project Team (IPT) Chair Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Business Sponsor Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Business Sponsor Date

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IT Program Manager Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Manager Date

Appendix A: Non-Functional Requirements

The following non-functional requirements should be reviewed and accessed while developing the requirements for the project.

System Performance Reporting Requirements   
(Note: Each system developed by the Department of Veterans Affairs (VA) Office of Information and Technology (OI&T) must comply with the following mandatory requirements.)

1. Include instrumentation to measure all performance metrics specified in the Non-Functional Requirements section of the Requirements Traceability Matrix (RTM). At a minimum, systems will have the ability to measure reporting requirements for Responsiveness, Capacity, and Availability as defined in the non-functional requirements section of the RTM.
2. Make the performance measurements available to the Information Technology (IT) Performance Dashboard to enable display of “actual” system metrics to customers and IT staff.

Operational Environment Requirements

1. System response times and page load times shall be consistent with current Veterans Health Information Systems Technology Architecture (VistA) system standards (for example, My HealtheVet or HealtheVet). (Comment: There may be different expectations for an external display vs. a query. Need to address these different uses. Also indicate if this information is unknown).
2. Maintenance, including maintenance of externally developed software incorporated into the NDF, PPS, Outpatient Pharmacy, IB and AR application(s), shall be scheduled during off peak hours or in conjunction with relevant maintenance schedules. The Business Owner should provide specific requirements for establishing system maintenance windows when planned service disruptions can occur in support of periodic maintenance.
3. Information about response time degradation resulting from unscheduled system outages and other events that degrade system functionality and/or performance shall be disseminated to the User community within 30 minutes of the occurrence. The notification shall include the information described in the current Automated Notification Reporting (ANR) template maintained by the VA Service Desk. The specific business impact must be noted in order for OI&T to provide accurate data in the service impact notice of the ANR.
4. Provide a real-time monitoring solution to report agreed/identified critical system performance parameters.
5. Critical business performance parameters shall be identified e.g., transaction speed, response time for screen display/refresh, data retrieval, etc., in a manner that data capture can occur to support metric reporting and support the OI&T performance dashboard display. If no such performance metrics are required, or provided, there will be no program specific Service Level Agreements (SLAs) created, nor shall there be any active/real time monitoring through OI&T Performance Dashboard to provide the Business Owners any performance metrics.
6. Notification of scheduled maintenance periods that require the service to be offline, or that may degrade system performance, shall be disseminated to the Business User community a minimum of 48 hours prior to the scheduled event.

Documentation Requirements

1. The training curriculum shall state the expected training time for primary Users and secondary Users to become proficient at using the NDF, PPS, Outpatient Pharmacy, IB, and AR application(s).
2. All training curricula, User manuals and other training tools shall be developed/updated by VE Program Office and delivered to all levels of Users four (4) weeks in advance of the release of the enhancement through mediums that will best support the sharing of information to all affected staff. If known, insert how much time in advance the training tools will be delivered and via what mechanism(s); for example, 2-4 weeks in advance of the release of the enhancement through nationwide user12ence calls and PowerPoint presentations). The curricula shall include all aspects of the enhanced NDF, PPS, Outpatient Pharmacy, IB, and AR application(s) and all changes to processes and procedures.
3. The training curriculum developed by the Program Office shall state the expected task completion time for primary and secondary Users.
4. User manuals and training tools shall be developed. If they already exist, updates shall be made, as necessary, to them and they shall be delivered to all levels of Users.
5. IT will provide the level of documentation required to support the system and maintain operations and continuity. Documentation shall represent minimal programmatic and lifecycle operations support documentation artifacts as defined by VA standards in ProPath and as required by the [VA Enterprise System Engineering Lifecycle and Release Management office](http://vaww.eie.domain/lifecycle/default.aspx) for sustained operations, maintenance, and support prior to approval by any VA change control board and release into production.

Implementation Requirements

1. Technical Help Desk support for the application shall be provided for Users to obtain assistance.
2. The IT solution shall be designed to comply with the applicable approved Enterprise SLA.
3. The implementation must be complete by February 2017.

Data Protection/Back-up/Archive Requirements

1. Based upon the criticality of the system, provide a back-up and data recovery process for when the system is brought off-line for maintenance or technical issues/problems.
2. Data protection measures, such as back-up intervals and redundancy, shall be consistent with systems categorized as routine (30 day restoration), mission essential (72 hour restoration), or mission critical (12 hour restoration).

Business Owners are required to state the mission criticality of the IT services required in order to assist the planners and developers in determining best strategies for engineering an IT solution to meet their business objectives/needs. The Business Owner needs to state the criticality of the data and the impact to the business during a service disruption so appropriate technologies can be considered.

Levels for Disaster Recovery

Classification Recovery Time Objective Recovery Point Objective

Routine 30 day restoration TBD

Mission Essential 72 hour restoration 24 hours

Mission Critical 12 hour restoration 2 hours  
  
Recovery Time Objective (RTO) – RTO defines the maximum amount of time that a system resource can remain unavailable before there is an unacceptable impact on other system resources, supported mission/business processes, and the MTD.

Maximum Tolerable Downtime (MTD) - The MTD represents the total amount of time the system owner/authorizing official is willing to accept for a mission/business process outage or disruption and includes all impact considerations.

Recovery Point Objective (RPO) - The RPO represents the point in time, prior to a disruption or system outage, to which mission/business process data can be recovered (given the most recent backup copy of the data) after an outage.

Data Quality/Assurance Requirements

A monitoring process shall be provided to ensure that data is accurate and up-to-date and provides accurate alerts for malfunctions while minimizing false alarms.

User Access/Security Requirements

Ensure the proposed solution meets all Veterans Health Administration (VHA) Security, Privacy, and Identity Management requirements including VA Handbook 6500 (see the Enterprise Requirements section of the RTM).

Usability/User Interface Requirements

Adhere to good User Interface/User Centered Design (UI/UCD) principles as outlined in the Usability Appendix of the BRD.

Conceptual Integrity

Provide standards-based messaging and middleware infrastructure needed to support both Legacy Veterans Health Information Systems Technology Architecture (VistA) and future VistA 4 deployments.

Availability

1. Maintenance window, including maintenance of externally developed software incorporated into the VistA 4 application(s), will be by mutual agreement between OI&T and the VHA Point of Contact (POC) for the affected facility(ies). VHA will provide POCs for each facility.
2. VistA application unavailability due to an unplanned outage or planned outages that exceed the defined maintenance window will not exceed 8.76 hours per year and will not exceed 43.8 minutes per month (99.9% availability).
3. The application shall be available 24 hours a day, seven days a week, with an uptime of 99.9%.
4. All system updates and scheduled maintenance should occur between the hours of 1800 and 0600 (per local time zone), when clinical usage would be lightest.

Interoperability

1. The system shall support all recognized health system standards for example, Health Level 7 (HL7) and Fast Healthcare Interoperability Resources (FHIR).
2. Systems must be heterogeneous and agnostic for operating systems and code bases.
3. Provide the ability to securely transfer large files (of 4-8 gigabyte) from an external source to VA systems.
4. Provide access to the system over a remote access solution.

Manageability

1. Provide Service Desk/Incident and Problem Management tracking related to maintenance events of patient care systems with priority over non-patient care systems.
2. Provide data related to maintenance events, both routine and exceptional, including key metadata:

* Predicted routine work
* Occurrences where maintenance is completed, including restart from down time
* Identity of the organization performing maintenance
* User performing maintenance (if available)
* Identity of the system
* Date/time, physical location
* Systems impacted
* Does it affect patient care
* Non-urgent or emergent

1. Provide audit capabilities for system access and usage with settings that are configurable to support internal and external audits based on Federal and VHA mandates.
2. The system must comply with VA Directive 6300 Records and Information Management and with VHA Records Control Schedule (RCS) 10-1, in general, and specifically with Electronic Final Version of Health Record: Destroy/Delete 75 years after last episode of patient care, or longer (if specified).

Performance

1. Provide an Info button Query Responder on all platforms with a response time of less than .5 seconds.
2. The system shall recognize, report, and retransmit data lost, with less than 0-1% chance of incomplete patient records.
3. Provide patient data (for data within the system) transactions (e.g., capture, search, request for data) within .5 seconds.
4. Mouse or key-based UI controls, e.g., menus, checkboxes shall provide instantaneous responsiveness (<90ms).
5. Part-screen refreshes after User action shall complete within a pro-rated interval between 200 ms and 1200 ms times a percentage of the screen area being refreshed. For example, a component 10% of the screen area would refresh in (1200 – 200) \* 0.10 + 200 = 300 ms.

Reliability

1. Provide system reliability:   
   • Threshold = 99.9%  
   • Objective = 99.99% system and application
2. Provide system reliability:

* Level 1 severity =<1 failure per month
* Level 2 severity =<2 failures per month
* Level 3 severity =<3 failures per month

Security

Provide management of electronic attestation of information including the retention of the signature of attestation (or certificate of authenticity) associated with incoming or outgoing information.

Supportability

1. Provide alerts (that extend beyond system messages to external systems like mobile devices) for malfunctions, while preventing false alarms for local, regional, and national evaluations in real time.
2. Provide reports on performance metrics as specified in the VistA 4 Effectiveness and Value / Benefits Framework on a bi-weekly basis.
3. Provide national, regional, and local reports on performance metrics as specified in the VistA 4 Effectiveness and Value / Benefits Framework.
4. Provide performance metrics (from request for information to receipt of information on the screen) monitored by the system and system administrators so they know what the User experience is like without Users having to call them and tell them the system is running very slow.
5. Provide the ability for VHA and IT staff to create standard and ad-hoc reports of usage, bandwidth, response time, login time, and other variables with a verification process for measuring the capabilities of the system.
6. Provide end-user training on how to generate the various system performance reports (e.g., in standard file formats such as Comma Separated Values [CSV], Portable Document Format [PDF], or Excel) depending on the User's needs.
7. Provide the ability to view system statistics (e.g., information on the specific network environment) and identify areas that are having issues or are beyond capacity, in near-real-time (to be quantified at a later time).
8. Technical Help Desk support for the application via instant message, on-line, phone, and remote desktop access support, shall be provided for Users to obtain assistance 24/7.
9. The IT solution shall be designed to comply with the applicable approved Enterprise SLAs.
10. Data protection measures, such as back-up intervals and redundancy shall be consistent with systems categorized as mission critical (1hr restoration, 2hrs backup recovery). Impact of system failure must be monitored on a near real-time basis.
11. Provide the ability to set thresholds and notification type (e.g., email or text alerts) when alerting the User about response time degradation and unscheduled outages.
12. Disaster Recovery Plans (DRP) and Continuity of Operations Plan (COOP) will be updated and tested semi-annually to address the VistA 4 product ([see National Security and Homeland Security Presidential Directive: National Continuity Policy. NSPD-51/HSPD-20, May 9, 2007](http://www.fas.org/irp/offdocs/nspd/nspd-51.htm) )

Usability

1. Provide view ability/usability of VistA 4 applications on mobile devices.
2. User prompts and screen help shall be embedded into the system to guide use of the solution.

Documentation

1. The training curriculum shall be provided with two hours, or more, of training time for primary Users and secondary Users, to become proficient at using the VistA 4 application(s).
2. All training curricula, User manuals and other training tools shall be developed/updated by the VE Program Office and delivered to all levels of Users four (4) weeks in advance of the release of the enhancement through mediums that will best support the sharing of information to all affected staff.
3. Provide follow-up training classes tailored to VHA workflow four (4) weeks after the Users have begun to use the system.