Patient Statement Enhancement - Phase 2

Requirements Specification Document



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Version 2.8

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** |
| --- | --- | --- | --- |
| 3/16/2017 | 2.8 | Added requirements US022 and AC22.1-AC22.5 for APPS data validations (CR #481457).  Added validation tables in Appendix A.2 for APPS Consistency Checks in VistA, APPS data validations in CBSS and the APPS Print Acknowledgement data validations. | Ray Matteson |
| 2/21/2017 | 2.7 | Removed Functional Requirements for Auto-Correction and Transaction Discrepancy Fix  (CR #453471)  Added APPS Functional Requirements  (CR #434265)  Added a design constraint and additional content to Requirement AC15.1 that an APPS file cannot exceed 175K payment statements.  Added User Story 8.2.1 for the new sort version of the Auto-Correct Report. (CR #430031)  Added User Story 8.2.2 to change the titles of the Auto-Correct Report versions. (CR #446186)  Added User Story 8.2.3 to default the selection of the Auto-Correct Report version. (CR #446214)  Added requirements 1.1.8 through 1.1.13 for enhancements of the existing CCPC file build and transmit VistA menu options.  Added requirements 4.1.6-4.1.8 for the Bill Data File validations.  Updated requirement AC13.1 and Section 2.6.4.1 to reflect the changed APPS start date and transmission schedule. (CR # 472003)  Add User story US019 for the new APPS menu options. Updated mock-ups in section 2.6.4.1 to reflect the VistA UI for the 2 new APPS menu options. (CR# 472004) | Ray Matteson |
| 1/25/2017 | 2.6 | Added CBSS User and Actor roles and decryption. | Ray Matteson |
| 12/15/2016 | 2.5 | Added Requirement ACJ007 to implement the correct missing transaction amount calculation; and ACJ015 to correctly fix Incomplete transactions for non-active bills. (CR# 432565)  Added US009 and Requirement AR001 to update the AR Adjustment menu option bill calculation. (CR# 414650)  Added US008 to include a new sort order version of the Auto-Correction Report  (CR #430031)  Added User Story US010 for FileMan spelling corrections. (CR #416592)  Added User Story US010 to account for data archiving requirements as discussed at the requirements elaboration meeting on 10/29/2015.  Updated requirement 3.1.2 to explicitly state that two CBS files are sent to AITC and that the file is sorted so that the primary site data is listed first.  Add detailed sub-requirements to AR reports requirements 8.1.1, 8.1.2, and 8.13 and updated AR Report mock ups in section 2.6.10.  Update requirement 2.1.2 to include DFN on the CBS account number  (CR# 440415). | Ray Matteson |
| 8/22/2016 | 2.4 | Added requirements (3.1.14 & 3.1.15) ) to the Send CBS process to not start job if Generate CBS is running (CR# 313059).  Updated requirement 4.2.1 to send payment allocation based on a balance owed (CR# 366324). | Ray Matteson |
| 8/12/2106 | 2.3 | Removed BN 4.1 from scope per contract modification.    Added requirements (BN 7) for Two Factor Authentication per contract modification. | Ray Matteson |
| 8/5/2016 | 2.2 | Added Epic (9.0.0) and User Story & Requirements 9.1.X in Table 2-10 for the CBS Print Acknowledgement Requirements.  Existing Vista Reports  Added Epic (8.0.0) and User Story & Requirements 8.1.X in Table 2-11 for the enhancements of the VistA AR Reports.   * Added requirement 4.2.1 for nightly file to AITC/LOCKBOX. * Updated Table 2.8 to reflect the new 16-day FPS file schedule. * Update Requirement 1.1.1 to reflect a 16-day FPS file cycle. * Added requirements 1.1.3 through 1.1.7 to the Load FPS Data User Story. * Added requirement 3.1.11 through 3.1.13 to the Send CBS User Story. * Added User Story 5.4.0 for 2 factor authentication. * Added requirements 6.1.6 & 6.1.7 to the Manage ICN User Story. | Ray Matteson/ Diana Collins |
| 5/16/2016 | 2.1 | Updated to include 3 new Change Orders:  -Second VistA patch to update statement run date (3.1.13)  -Send a message if there was a problem with the acknowledgement files (3.1.12)  -Use a flag to identify when additional statements are sent out (outside of the standard monthly statement) (3.1.11) | Diana Collins |
| 4/26/2016 | 1.12 | Inserted text for BN 2.1, 2.2, and 3.1 in table 2.7.1. | Beth Easton |
| 03/21/2016 | 1.11 | Update to change acronyms ‘CPS’ to ‘CBS’ and ‘CPSS’ to ‘CBSS’. | Erica Robertson |
| 02/18/2016 | 1.10 | Updated Figure 2 and changed AITC/Lockbox description in table 2-2. | Beth Easton |
| 02/17/2016 | 1.09 | Updated Figure 2, added email content text to 2.6.1 through 2.6.4, changed distribution method to allocation, removed Appendix 1 and changed reference to SDD. | Beth Easton |
| 02/16/2016 | 1.08 | Updated Figures 5 and 10, Section 2.10, and AITC descriptions throughout document. | Beth Easton |
| 02/11/2016 | 1.07 | Updated to reflect VA reviewer’s comments. | Erica Robertson/ Beth Easton |
| 01/21/2016 | 1.06 | Updated Figures and tables throughout RSD  Section Updates Include:  Section 1.2 Scope numbers 1 and 2.  Section 2 Overall Description, added new figure and table.  Section 2.6 added figures and description  Section 2.7 added and deleted tables  Updated descriptions in sections 2-9, 2-10, 2-12, 2-13, 2-14, 2-15, 2-16  Updated Section 3 Purchased Components Removed: global payment sections and text  Updated all subsections of section 2 to reflect latest business decisions | Erica Robertson/ Beth Easton |
| 01/06/2015 | 1.05 | Updates include cover page, version history and date.  Section updates include:  Section 1.2 -1.3, 2.4, 2.5 formatting and added specifications  Section 2.0 description updated  Tables 2-1, 2-3, 2-6 spelling and descriptions updated  Table 2-5 updated  Section 2.1 moved to Appendix A.2  Section 2.3 added verbiage for explanation  Section 2.4 updated and added enterprise requirement specification  Section 2.5- updated verbiage and added new table for PSE documentation  Figure 7- revised figure  2.6.1.1 added detail and a table for clarification  Section 2.6.1.3 spelling | Shawnee Blair/Heather Chatwin/Erica Robertson |
| 12/17/2015 | 1.04 | Updates occurred between 11/1 through 12/17, and include cover page version and date.  Section updates include:  Section 1, added section 1.2.1-Out of Scope requirement.  Section 2, updated figure and table.  Section 2.2-updated business rule questions with answers and status to date.  Section 2.6, updated section name and description of contents.  Section 2.6.1 – provided updated process diagrams for Manage CBS Data module.  Section 2.6.2, provided updated process diagrams for Generate CBS module.  Section 2.6.3, provided updated process diagrams for Manage Batch module.  The following requirements were amended: CBSS001, CBSS003, CBSS004, CBSS005, CBSS006, CBSS010, CBSS011, CBSS014, CBSS015, CBSS017, CBSS018, CBSS020, CBSS026  Added the following requirements: CBSS006.1, CBSS010.1, CBSS011.1, CBSS011.2, CBSS011.3, CBSS011.4, CBSS012.1, CBSS012.2  Revised US006. | Heather Chatwin |
| 10/29/2015 | 1.03 | Removed out of scope section and updated scope section. Updated cover page and footers. | Heather Chatwin |
| 10/18/2014 | 1.02 | The following sections were revised for the final draft:  Section 1.2.1: this section was added to address items that are out of scope for Phase 2 development.  Section 1.3: added additional reference material that was analyzed to create To-Be processes.  Section 2: updated the diagram and table descriptions,  Section 2.2: removed business rules but kept the place holder for the ten outstanding questions.  Section 2.6: Introduced and added workflows.  Section 2.7: Introduces functional specifications and revised requirements.  Section 3: added verbiage regarding the hardware and software components necessary for Phase 2 development. | Heather Chatwin |
| 10/1/2014 | 1.01 | Updated document per internal team review and requirement elaboration sessions. Updated cover page and footers. | Heather Chatwin |
| 9/16/2015 | 1.0 | Initial draft | Heather Chatwin  Tony Nixon |

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.

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# Introduction

The remediation of the Veterans Health Information Systems Technology Architecture (VistA) Accounts Receivable (AR) process is required to provide a consolidated and easily readable patient statement from multiple treatment facilities during a monthly cycle. Enhancements to the AR system will increase Veteran satisfaction by mitigating concerns raised by Veterans Service Organizations (VSO) and individual Veterans, who have provided feedback to the Department of Veterans Affairs (VA) regarding poor customer service and poor business practices. Future development activities are dependent on Phase 1 and Phase 2 enhancements, as these enhancements will deploy best practices in financial and business processes, and align with the VA initiative to build Veterans Record Management (VRM) capability to enable convenient and seamless interactions.

The PSE project includes 3 development phases across 5 increments. Phase 1 will remediate existing payment cycle deficiencies and include an auto-correction job. Phase 1 will be coded and initial SQA testing will be performed in Increment 1. Phase 1 final Software Quality Assurance (SQA), User Functionality Testing (UFT), Initial Operability Capability (IOC), and deployment will be in Increment 3.

Phase 2 includes the creation of the Consolidated Patient Statement and for the generation of the Annual Patient Payment Summary (APPS) statement. Phase 2 will be coded and initial SQA testing will be performed in Increment 2. Phase 2 final SQA, UFT, IOC, and deployment will be in Increment 3.

Phase 3 includes making the Consolidated Billing Statement (CBS) available on-line through the Health***e***Vet portal. Phase 3 will be coded and initial SQA testing will be performed in Increment 4. Phase 3 final SQA, UFT, IOC, and deployment will be in Increment 5.

## Purpose

The purpose of this Requirements Specification Document (RSD) is to introduce the functional and technical requirements for Patient Statement Enhancements (PSE) for Phase 2. The intended audience for this document are PSE Office of Information and Technology (OI&T), the PSE Business Requirements Office, and other PSE stakeholders.

## Scope

This RSD focuses on the business rules and requirements for Phase 2 development. Items considered in scope for Phase 2 are listed below:

1. Create a consolidated patient statement across all VA Medical Center (VAMC) facilities. The Consolidated Billing Statement System (CBSS) will create a Consolidated Billing Statement (CBS), a data file for each Veteran that has visited one or more of the 150 VAMC sites. CBSS will receive patient statement data from the 150 VAMC sites and combine all of a Veteran’s monthly activity, including VAMCs visited, charges related to each visit, payments made toward debt and balance amounts (previous balance, current balance, and total amount due), and payment due date into a single monthly statement. Receiving statement data from the VAMCs will be accomplished through a scheduled batch process. Once the CBS data file is created, it is sent to Austin Information Technology Center (AITC) for formatting and sent to the print vendor for printing and mailing. When the AITC has sent the print vendor the statement print files, AITC/CCPC will send print acknowledgement to CBSS for processing of updates of the CBS status.
2. Existing VistA AR reports will be analyzed and modified as needed to work with the CBS processes.
3. Each VAMC will provide CBSS with the oldest bill balance and amount for each Veteran on a nightly basis. This information will be used to determine payment distribution. VistA AR will maintain the ability for VistA AR users to post Veteran payments at a site where the charge was incurred. Health Resource Center (HRC) personnel will continue to be able to post payments using pay.gov. CBSS will provide AITC/Lockbox the payment allocation for Lockbox payments.
4. As-Is and To-Be analysis of payment processing (the following interfaces will not be enhanced during the PSE project, but remain in-scope for integration and regression testing; to ensure that current processes are not impacted negatively and continue to work with the development of CBSS):
5. Customer Relations Management (CRM)   
   As-Is payment processing will remain intact and not enhanced during Phase 2 development (see Performance Work Statement (PWS) requirement 5.12 in section 2.7.4)
6. Pay.gov   
   As-Is payment processing will remain intact and not enhanced during Phase 2 development. (See PWS 5.13 in section 2.7.4)
7. Treasury Offset Program (TOP)   
   As-Is payment processing will remain intact and not enhanced during Phase 2 development (See PWS 5.14 in section 2.7.4)
8. Debt Management System (DMS)   
   As-Is payment will remain intact and not enhanced during Phase 2 development   
   (See PWS 5.15 in section 2.7.4)
9. Consolidated Co-Payment Processing Center (CCPC) Print Vendor   
   As-Is processing will remain intact and not enhanced during Phase 2 development   
   (See PWS 5.16 in section 2.7.4)
10. Lockbox Bank of America   
    As-Is payment processing (on-line and by mail) will remain intact and not be enhanced during Phase 2 development (See PWS 5.17 in section 2.7.4)
11. The Financial Management System (FMS)   
    As-Is processes will not be enhanced during Phase 2 development
12. To-Be processes are introduced in section 2.6 (Refer to sections 2.6.1 through 2.6.9)
13. Analysis of the statement data transferred to AITC/CCPC. To-be Consolidated Patient Statement file layout and additional technical requirements are available in the Phase 2 System Design Document (SDD).
14. Analysis and data mapping of the data transferred to the CBSS.
15. An Annual Patient Payment Summary (APPS) statement that includes all payments across all facilities made by a Veteran in the precious calendar year.

## Out of Scope

The following PWS requirements were determined to be out of scope.

Table ‑: PWS Requirements Out of Scope

| **PWS Reference** | **Requirement Test** | **Priority** |
| --- | --- | --- |
| PWS 5.5.1 BN 3.1 | The system shall assign a Veterans Health Administration (VHA)-wide, unique patient identifier for each customer. | High |
| PWS 5.5.1 BN 3.2 | The system shall assess a single, monthly administrative charge for a Veteran’s delinquent account on the consolidated patient statement. (Contact Chief Business Office (CBO) Revenue regarding the policy). | High |
| PWS 5.5.1  BN 3.4 | The system shall provide functionality to ensure that payments made by Veterans at a site are applied to the appropriate charges regardless of the VA facility at which the charge originated. This covers all payments and repayment plans made by Veterans in person at a VA facility. | High |
| PWS 5.5.1 BN 4.1 | The system shall interface with VistA AR to pass VHA-wide, unique, identifier to the Consolidated Co-payment Processing Center (CCPC). | High |

## References

The following documents were used reference material for creating this RSD and To-Be process diagrams:

* Patient Statement Enhancements (PSE) Project Work Scope (PWS), section 5.5
* Agent Cashier Manual, last updated May 2015
* AR User Manual, last updated March 1995
* Lockbox Training Guide, revised September 2007
* CCPC LBX system data flows
* Clerks AR Menu Part 1, last updated May 2015
* Clerks AR Menu Part 2, last updated November 1994
* MPI\_PD Technical Manual, last updated September 2015
* MPI\_PD User Manual, last updated September 2015
* VA-Financial Policy Volume XII Chapter01A

# Overall Description

The VHA CBO is requesting the development of CBSS to capture, store, and to process Facility Patient Statement (FPS) data received from all sites into a monthly CBS. In addition, the VHA CBO requested a new statement to be created annually to provide a list of all payments made to VA medical facilities by the Veteran. In order to create this APPS statement, each VA Medical Center (VAMC) (VistA site) will create a data file that contains all payments made by the Veteran to that VAMC for the previous calendar year. The Austin Information Technology Center (AITC) will consolidate the data from each of the VAMCs and make the merged file available to CBSS. CBSS will then load the data, consolidate, sort, and calculate totals for each Veteran, and create a data file to send to AITC CCPC. AITC CCPC will process the data file to generate the formatted APPS statement which will be sent to the print vendor for printing and mailing to the Veterans for tax reporting purposes.

The processing and administration of the APPS batch jobs will utilize the infrastructure created for monitoring the monthly jobs that consolidate the billing statements such that the APPS jobs will be added to the CBSS GUI. AITC will also make changes to the AITC CCPC application in order to support the creation and printing of the actual APPS statement.

The diagram below provides a high level overview of CBSS capabilities, interfacing systems, and affected user groups. The box in the center of the diagram illustrates the CBSS, the blue circles in the CBSS box are the high level capabilities of this new system under development during PSE Phase 2 (Load FPS data, Generate CBS, Manage Bill, Manage Batch, and Manage ICN processes are the high-level capabilities of CBSS). The actors to the right and to the left of the CBSS box illustrate the user groups and systems that are affected by the development of the new system; the actors to the left of the CBSS box will provide CBS data to CBSS. The actors to the right of the CBSS box will receive CBS data and manage scheduled job processes.

The ability to View the CBS will be delivered through enhancements to the HRC/CCPC application by the HRC team. It is represented in the RSD for integration testing. AITC will be making changes to the AITC/CCPC application, in support of the CBS, to provide the ability to send FPS files to CBSS. AITC will also be making changes to AITC/Lockbox in order to receive a file of bill information containing payment allocation for patients that visit multiple sites.

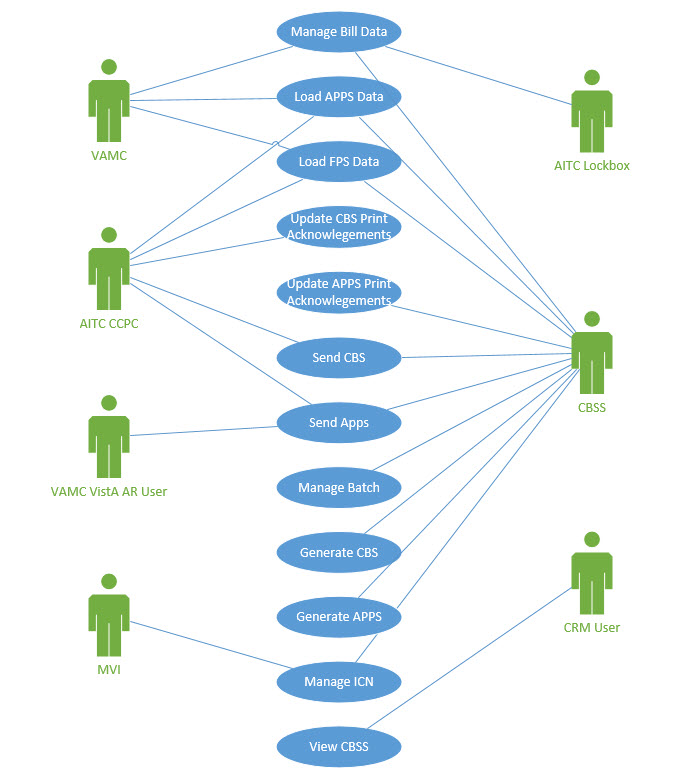


Figure ‑: CBSS New Processes and Interactions with Actors

The following table provides a list of user roles that correspond to each actor.

Table ‑: Actors and User Roles

| **Actors** | **User Roles** |
| --- | --- |
| AITC/Lockbox | System |
| VAMC/ VistA AR Users | Agent cashiers Located at the VAMC & Cash Management (Consolidated Patient Account Center (CPAC) |
| Facility revenue technicians |
| HRC |
| Veteran Service Technician – 1st party accounts receivable  (CPAC) |
| Financial Services Center (FSC) Exception Handling |
| CRM Users | Facility revenue technicians |
| HRC |
| Master Veteran Index (MVI) | System |
| AITC/ CCPC | System |
| CBSS User | AITC |

The following table provides a brief description of the actors that play a role in the CBSS Processes identified in [Figure 1](#CBSS_Use_Case_Digram).

Table ‑: CBSS Actor Descriptions

| **Actors** | **Description** | **As-Is or To-Be** |
| --- | --- | --- |
| Lockbox | First Party Lockbox (LBX) supports the centralized collection of checks and credit card payments (mail and on-line payments) at a lockbox bank (i.e., Bank of America) and automates the steps necessary to apply those funds to a patient’s account that resides at the VAMCs. The lockbox bank transmits the payment transactions electronically to AITC/Lockbox and these transactions are distributed to the appropriate VAMC for automatic posting to the patient’s account and subsequent reporting into the VA’s accounting system.  If for some reason a Lockbox payment cannot be processed as received, payment information is sent to the Exceptions Handling team to research and coordinate resolution and manual payment posting with VAMCs. | As-Is |
| VAMC/ VistA AR Users | There are 150 VA Medical Centers located across the U.S. These facilities use the VistA Accounts Receivable (AR) application to manage Veteran debt and payment transactions. VistA AR is the authoritative data source for all Veteran account information. | As-Is |
| CRM Users | The new CBS and APPS will be passed from AITC/CCPC to the HRC CCPC application, which will render a PDF for viewing of the both Monthly Patient Billing statement and Annual Patient Payment Summary in CRM. | To-Be |
| Master Veteran Index (MVI) | CBSS will register an interest with MVI all new DFN/Site combinations. MVI will send CBSS a notification when an ICN has been updated for any DFN/ICN for which CBSS has a registered interest. CBSS will retrieve the update from MVI through a HL7 interface engine (i.e., MIRTH) and update the Veteran record with new ICN. | To-Be |
| AITC/Lockbox | AITC/Lockbox receives first party lockbox payments, and will receive payment allocation from CBSS. AITC/Lockbox will then distribute payments to the VAMCs. Lockbox payments that cannot be processed are sent to the Exceptions Handling team for research and efforts to resolve errors are coordinated with the VAMCs. | To-Be |
| AITC/CCPC | CBSS sends AITC/CCPC CBS data files. AITC/CCPC confirms data was received, formats data and sends data to the print vendor for mailing, and to HRC/CCPC for PDF generation and display in CRM. AITC/CCPC sends print acknowledgement files to CBSS and VAMC (VistA). | To-Be |
| CBSS User | This administrative role has the ability to configure and run all CBSS batch jobs (defined in Table 2-3). | To-Be |

The following table provides a brief description of the CBSS processes identified in [Figure 1](#CBSS_Use_Case_Digram).

Table ‑: CBSS Capabilities and Brief Descriptions

|  |  |  |
| --- | --- | --- |
| **CBSS Capability** | **Description** | **As-Is or To-Be** |
| Load FPS Data | This module provides the ability to receive and load FPS data into CBSS. | To-Be |
| Generate CBS | This module provides the ability to generate consolidated patient statements. During this process, CBSS will execute business rules to aggregate transactions and calculate totals to format a CBS for each unique patient/unique account number. | To-Be |
| Send CBS | This module provides the ability to create CBS data files and send to AITC/CCPC. | To-Be |
| Update CBS Print Acknowledgements | This module provides the ability to receive and load print acknowledgements received from AITC/CCPC in order to update billing statement records in CBSS to complete. | To-Be |
| Manage Bill | This module provides the ability to receive and load oldest bill information from each VAMC and send the payment allocation to AITC/Lockbox. | To-Be |
| Manage Batch | This module provides the ability to view batch jobs, configure the scheduling of a batch job, view job status, manually run a job, and view the status of a completed job. | To-Be |
| Manage ICN | This module provides the ability to register an interest in ICN changes with MVI and receive updates of Veteran identity from MVI. | To-Be |
| Load APPS Data | This module provides the ability to receive and load APPS data into CBSS. | To-Be |
| Generate APPS | This module provides the ability to generate APPS data. During this process, CBSS will execute business rules to aggregate payments and calculate totals to format a APPS for each unique patient/unique account number. | To-Be |
| Send APPS | This module provides the ability to create APPS data files and send to AITC/CCPC. | To-Be |
| Update APPS Print Acknowledgements | This module provides the ability to receive and load print acknowledgements received from AITC/CCPC in order to update annual payment summary records in CBSS to complete. | To-Be |

The following diagram depicts the context of interactions of the systems, environments, and actors involved in the CBS processes.

Consolidated billing statement context diagram


Figure ‑: Consolidated Billing Statement Context Diagram

## Accessibility Specifications

The PSE project will adhere to all Section 508 requirements, which include compliance with the applicable requirements in the VHA Section 508 checklists (1194.21, 1194.22, 1194.24, 1194.31, and 1194.41) located at 508 Resources Link[[1]](#footnote-1) or as otherwise specified. Established checkpoints will ensure that accessibility is incorporated from the earliest possible design or acquisition phase and successfully implemented throughout the project.

The CBSS will include a new user role for managing batch processes and manually re-generating CBS data files. Section A.11 CBSS User of this document defines the role and responsibilities of this new user.

The table below defines the different levels of access to view the consolidated patient statement (as a form, or VistA AR data), and user access to CBSS.

Table ‑: User Access to Consolidated Patient Statement

| **Users** | **Transactions or PDF Version** | **Application** | **Consolidated Statement**  **Transactions** |
| --- | --- | --- | --- |
| Agent cashiers Located at the VAMC & Cash Management (CPAC)  Only users that can post payments | Transactions | VistA | No |
| Facility revenue technicians (Located at a site) | PDF | CRM | Yes |
| Health Resource Center (HRC) | PDF | CRM | Yes |
| Veteran Service Technician – 1st party accounts receivable  (CPAC) | Transactions | VistA | No |
| FSC Exception Handling | Transactions | VistA | No |

## Business Rules Specification

### APPS Print Due Date

All APPS statements (i.e., data files) must be generated such that they can be printed and mailed by January 31st.

### CBS Person Traits

CBSS shall use Person Traits from the FPS file with the most recent site visited. Each VAMC will send CBSS the most recent Date Bill Prepared (subject to change per VistA Maintenance Team review) in the FPS data. CBSS will use this date to determine, across sites, which one represents the most recent Veteran activity.

### CBS Veteran Mailing Address

CBSS shall use the Veteran Mailing Address from the FPS file with an AR Flag or the last site visited on the CBS. CBSS will use the most recent Date Bill Prepared (subject to change per VistA Maintenance Team review) from the FPS data to determine the site with the most recent Veteran activity. CBSS will use the following logic to determine the address.

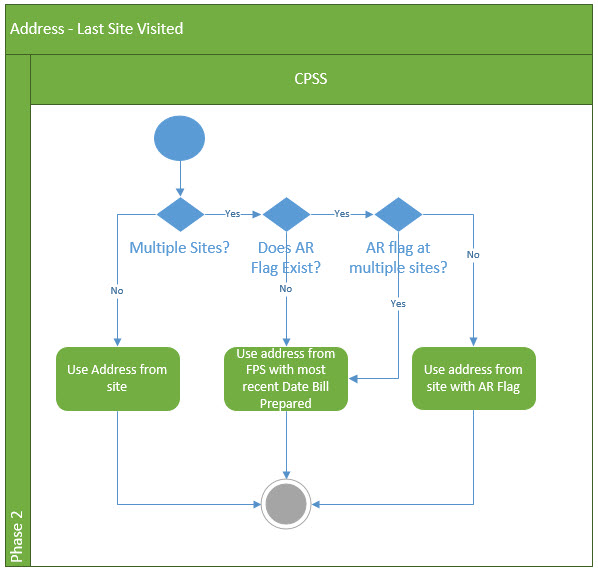


Figure ‑: Veteran Address - Last Site Visited Rules

### CBSS Payment Distribution

The CBSS shall determine payment distribution according to the oldest debt. Each VAMC will calculate and send CBSS a nightly update of the ICN, Site, DFN, oldest debt balance and date. CBSS will then send AITC/Lockbox the payment allocation for each Veteran who has visited multiple sites, the oldest debt date will be used to determine the payment allocation. The run frequency may be adjusted based on results of performance testing.

Multiple sites will be based on the Veteran having billing information from more than one site in the nightly payment files.

### CBSS User Access

The CBSS shall require two factor login access using the Personal Identity Verification (PIV). CBSS will interface with the Identity and Access services to authenticate and authorize access to the system.

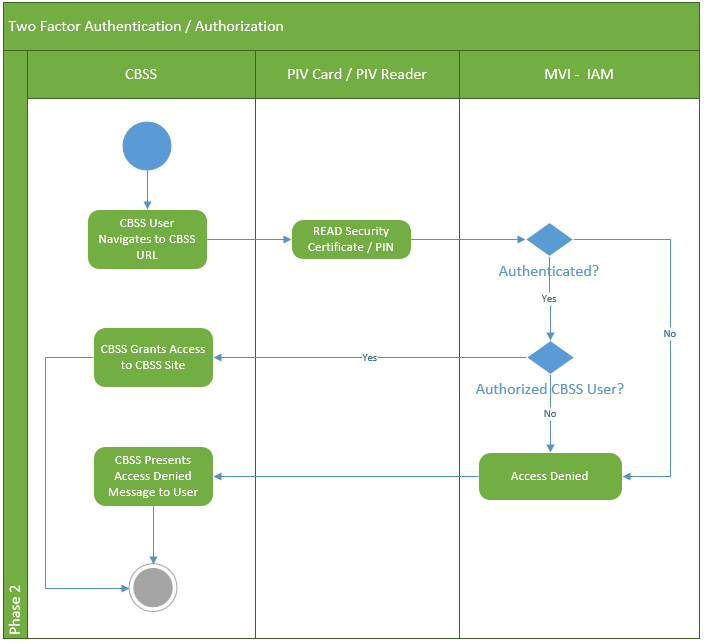


Figure ‑: Two Factor Authentication / Authorization

## Design Constraints Specification

PSE will adhere to all technical standards published in VA Handbook 6102, as well as all security standards described under the Security Specifications section of this document.

* Proposed design of the consolidated patient statement will comply with VistA, VHA Security, Privacy, Identity Management, business rules, and functional and non-functional requirements addressed in this document.
* The number of billing statements to be mailed during a month must not exceed 110,000 a day, as a greater volume of monthly statements would impact HRCs ability to manage call volume.
* The number Veteran annual payment summaries in a single APPS file from CBSS to AITC must not exceed 175,000 per file, as a greater volume of annual statements all at the same time would impact HRCs ability to manage call volume.

## Disaster Recovery Specification

The PSE development team shall utilize the existing Disaster Recovery Plan for the VistA AR application as there are no changes to this plan for the PSE project.

The PSE development team shall document the Disaster Recovery Plan including a rollback strategy prior to deployment (see enterprise requirement below).

|  |  |
| --- | --- |
| ENTR949 | Applications shall document a rollback strategy prior to deployment. |

The PSE Disaster Recovery Plan shall identify the activities that are necessary to execute temporary information system processing capabilities, repair damage to the original system, and restore operational capabilities at the original or new facility. Recovery strategies will include the sequence of activities as well as detailed procedures for the technical recovery of operations until the system can be reconstituted.

In compliance with the requirements established, the system is classified as “essential support” as defined in the AITC Disaster Recovery Services (Per AITC DR procedures this includes onsite tape backup/restore and Backup Server’s for PSE-CBSS Production Servers). PSE Team will work with AITC/Service Delivery and Engineering (SDE) on the Application Contingency Plan maintained by CDCO, for specifics on the Disaster Recovery (DR), and high availability procedures.

## Documentation Specifications

PSE project documentation will comply with existing PMAS policies and ProPath templates. PSE project documentation deliverables are listed in the PSE PWS. The PSE project requires updates to VistA documents and CBSS documents identified in the table below.

Table ‑: PSE Documentation Requirements

| **Document** | **Description** |
| --- | --- |
| VistA AR User Manual | The VistA AR User Manual will be updated to reflect enhancements made to the application. |
| VistA AR Technical Manual | The VistA AR Technical Manual will be updated to reflect enhancements made to the application. |
| VistA AR Security Guide | The VistA AR Security Guide will be updated to reflect enhancements made to the application. |
| VistA AR Installation Guide | The installation guide will be updated to include all requirements associated with initial installation/implementation. |
| VistA AR Deployment Plan | A new Deployment Plan will be created for VistA AR. |
| VistA AR Security Guide | The Security Guide will be updated to include all security related changes to VistA AR. |
| VistA AR Release Notes | A new Release Notes will be created for VistA AR. |
| CBSS User Manual | A new User Manual will be created for CBSS. |
| CBSS Security Guide | A new Security Guide will be created for CBSS. |
| CBSS Installation Guide | A new installation guide will be created for CBSS and include all technical and physical requirements for hosting, housing, operating and maintaining the system hardware and software, and all requirements associated with initial installation/implementation. |
| CBSS Deployment Plan | A new Deployment Plan will be created for CBSS. |
| CBSS Security Guide | A new Security Guide will be created for CBSS. |
| CBSS Release Notes | A new Release Notes will be created for CBSS. |
| CBSS Production Operations Manual (POM) | A new POM will be created for CBSS. |

## Functional Specifications

This section introduces the new CBSS system processes and VistA AR enhancements to be implemented during Phase 2 of the PSE project to support the functionality to produce a consolidated monthly patient billing statement and annual payment summary statement.

### Generate FPS (VistA AR)

The existing VistA AR processes, billing files, and menu option require enhancement to accommodate the new consolidating billing processes. Tables outlining the new FPS attributes and the breakdown of the processing schedule are shown below.

#### Enhance the FPS File

The VistA AR statement generation process will be enhanced to add additional attributes to the FPS file. The additional attributes required to support the production of consolidates monthly billing statements and are defined below.

Table ‑: New Attributes Added to The FPS File

|  |  |
| --- | --- |
| **New Field** | **Description** |
| ICN | Patient Identifier (Integrated Control Number) |
| ICN Checksum | Validation Identifier for the ICN |
| AR Flag | Indicates if the Patient’s address was pulled from the VistA billing file (If the AR Flag is Yes, then the address is from the VistA file, otherwise, the address is from the Patient File.) |
| Last Bill Prepared Date | The date of the last (most recent) charge made to the Patient |

#### Modify the FPS Generation Process Schedule

The statement generation process will be modified to run 16 times a month and will produce statement data based on the patient’s last name as defined below.

Table ‑: Modified Schedule for FPS File Generation by Patient Last Name

| **Day of the Month** | **Last Name Beginnings With** |
| --- | --- |
| 1 | A,BA,BU |
| 2 | B (EXCLUDE BA,BU) |
| 4 | CI,CR,CU,D |
| 6 | C (EXCLUDE CI,CR,CU) |
| 7 | E,F,I,Q |
| 8 | G,HE |
| 10 | H (EXCLUDE HE) |
| 12 | J,K |
| 14 | L,O |
| 15 | M (EXCLUDE MC,MI) |
| 17 | MC,MI,N,TI-TZ |
| 19 | R,TA-TE |
| 21 | S (EXCLUDE SC,SH,SI,SM) |
| 22 | SC,SH,SI,SM,V,TF-TH |
| 24 | P,U,X,Y,Z |
| 26 | W |

#### Enhance the CCPS (FPS File) Build and Transmit Menu Options

As the CBSS processes are modifying the patient statement transmission schedule for each VAMC AR site from once per month to a 16-day per month cycle, the existing menu options that allow the re-building and re-transmitting of FPS site files will be enhanced to accommodate the multi-day schedule.

A date prompt in the “Build CCPC file for transmission” and “Transmit CCPC messages” menu options is added. For the “Build CCPC file for transmission” option the user must enter a date for which billing statement data should be generated, per the revised 16-day per month schedule. For the “Transmit CCPC messages” option the user must enter a date for which a CCPS file exits. A valid data format must be entered.

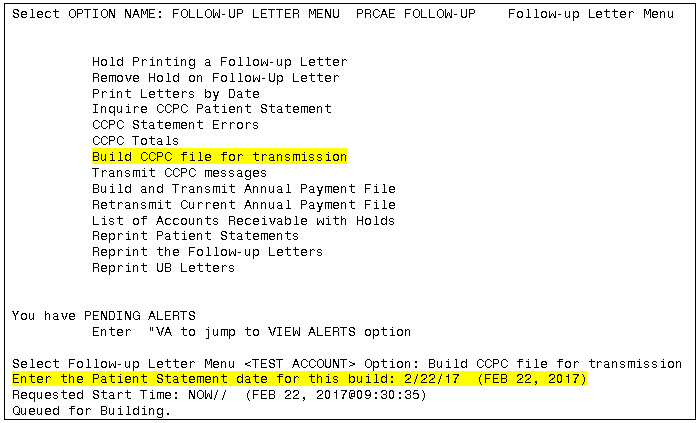


Figure ‑: Statement Date User Prompt for Build CCPC File for Transmission

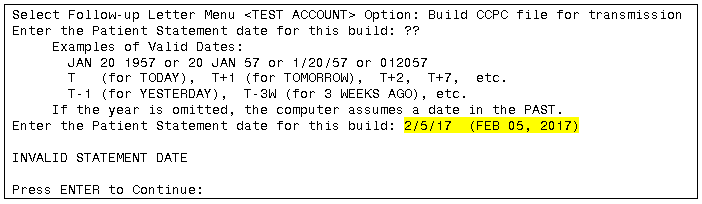


Figure ‑: Non-existent Scheduled Statement Date Entered

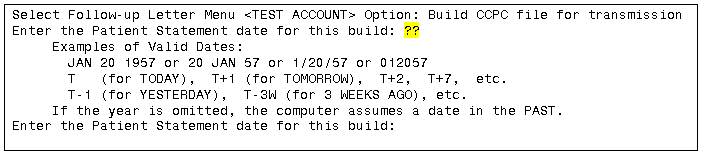


Figure ‑: Help Text on the Patient Statement Date parameter

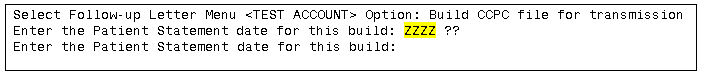


Figure ‑: Invalid Date Format Entered

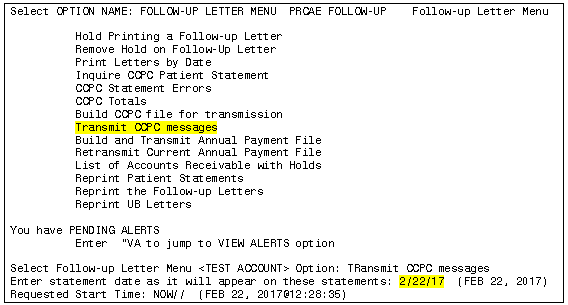


Figure ‑: Statement Date Prompt for Transmit CCPC Messages

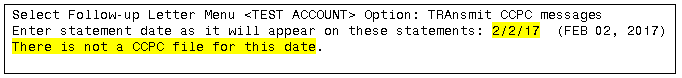


Figure ‑: Date Selected on Which no CBSS File Exists to Transmit

### Process Billing Statement and Payment Distribution

#### Load FPS Data

This CBSS process will be a scheduled batch job that when triggered will load the FPS data from AITC/CCPC. Prior to loading the file, CBSS will perform basic validation to ensure the data is not corrupt or the file is not empty (Refer to Appendix A.2 for specific validations performed against the FPS file). It is assumed that duplicate patient transaction data is not received per site. If data validation is successful, CBSS will save the data. If validation fails, an error message will be generated. A CBSS user will work with AITC to correct and retransmit the file. Upon completion of the job an email notification will be sent to the CBSMonitoring@VA.GOV email distribution group along with a success or failure specific subject. The email will contain a list of all files processed and their status. The email subject and content will be defined during development.

The following figure illustrates the process by which FPS data is sent from all 150 VAMC locations 15 – 20 times a month, according to last name, to AITC/CCPC for processing and validation then on to CBSS for loading.

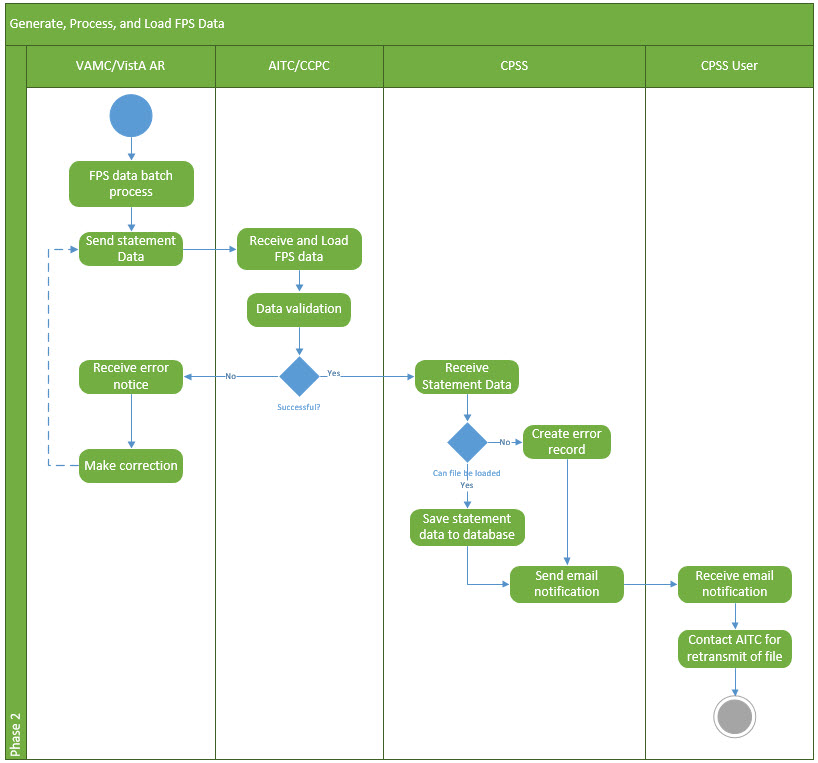


Figure ‑: Generate, Process and Load FPS Data

#### Generate CBS

This module provides the ability to generate consolidated patient statements. The figure below illustrates the CBSS process of creating the CBS. The process begins when the Generate CBS batch job is executed. It includes the business logic to aggregate and calculate patient statement transactions into a consolidated monthly patient statement and stored in the database. The diagram below depicts the detailed process of selecting each new patient, consolidating that patient’s data, storing it in the database, and then repeating the process until no more new patients exist that need a consolidated patient statement.

CBSS will display a successful notice when the job is complete. CBSS will display an error notification if it is unable to generate a CBS. Upon completion of the job an email notification will be sent to the CBSMonitoring@VA.GOV email distribution group along with a success or failure specific subject. The email will contain a count of statements processed and their status. The email subject and content will be defined during development.

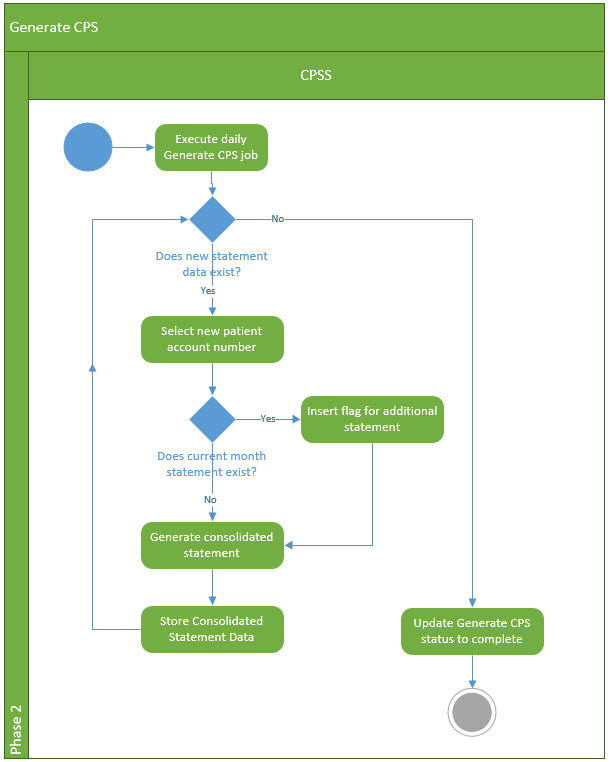


Figure ‑: Generate CBS

#### Send CBS

This module provides the ability to create CBS data files and send them to AITC/CCPC. The process begins when the Generate CBS batch job is executed. Each CBS created in the Generate CBS batch job will be selected and inserted into a file located on the FTP server for pick up by AITC/CCPC. File size will be optimized during testing. Once all available CBS data has been written to a file, the job will save the files to the FTP server.

Upon completion of the job an email notification will be sent to the CBSMonitoring@VA.GOV email distribution group along with a success or failure specific subject. The email will contain a list of all files processed and their status. The email subject and content will be defined during development. AITC/CCPC will pick up the files, format them and send them to the print vendor for printing and mailing.

If an error occurs during the Send CBS process, no files will be saved to the FTP server. CBSS will display an error notification in the status.

When the Send CBS process is ran, CBSS will perform a check to see if the “Generate CBS" is actively running. If the Generate CBS process is running, the Send CBS batch job will not be started. CBSS will attempt a re-start every 15 minutes and will stop retrying after 2 hours. If it stops due to the 2 hour retry timeout, CBSS will send an email notification to the distribution group to notify that the job did not run and needs to be manually started.

#### Update CBS Print Acknowledgement

AITC/CCPC will send CBSS and VistA AR print acknowledgements (received from the billing statement print vendor). CBSS will validate and load the print acknowledgement files received from AITC/CCPC and update the CBS status to complete for each statement in the received file. (Refer to Appendix A.2 for specific validations performed against the CBS Print Acknowledgement file.)

The following screen mockups provide a visual of what the CBSS Update Print Acknowledgement status screens may look like and are not intended to represent the final approved screen layouts.

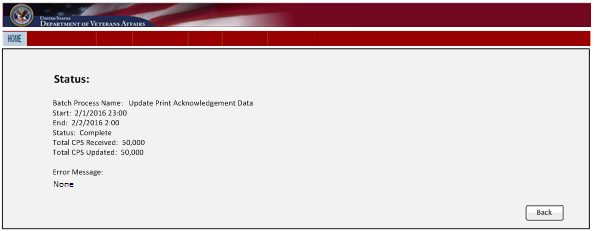


Figure ‑: Update Print Acknowledgement Status Screen (No errors)

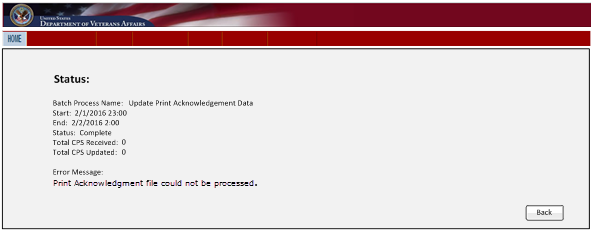


Figure ‑: Update Print Acknowledgment Status Screen (File Level Error)

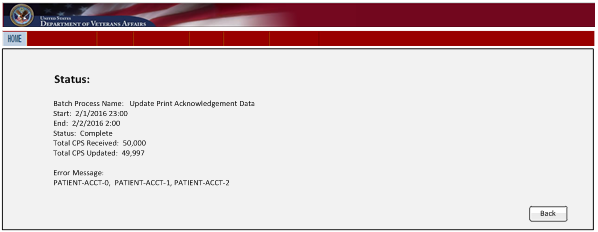


Figure ‑: Update Print Acknowledgement Status Screen (Record Level Errors)

#### Manage Bill Data

This module provides the ability to receive and load oldest bill information from each VAMC and send payment allocations to AITC/Lockbox.

#### Load Bill Data

Each VAMC will send a nightly file of bill information to CBSS. The file will contain the ICN, oldest bill date, and oldest bill amount for each Veteran. CBSS will receive, validate, and load the data for each ICN. If an error occurs during the process, CBSS will display an error notification. Upon completion of the job an email notification will be sent to the CBSMonitoring@VA.GOV email distribution group along with a success or failure specific subject. The email will contain a list of all files processed and their status. The email subject and content will be defined during development.

Specific validations performed against the Bill Data file are identified Appendix A.2. If the file itself is corrupt or any validation fails in the Header record then the entire file will be rejected and no data records will be processed. If a validation check in the detail record fails, only that specific record will be rejected.

#### Distribute Payment

CBSS will send AITC/Lockbox a nightly file of payment allocation for all Veterans who have a balance greater than zero. CBSS will use the oldest bill date and amount to generate the payment allocation. If an error occurs during the process, CBSS will display an error notification. Upon completion of the job an email notification will be sent to the CBSMonitoring@VA.GOV email distribution group along with a success or failure specific subject. The email subject will be defined during development.

#### Manage Batch

This module provides the ability to view batch jobs, configure a batch job, view batch job status, manually run a batch job, and view the status of a completed batch job.

#### View Batch Jobs

This process assumes the CBSS user has successfully logged into the system. Upon entering the system, CBSS displays the landing page, which displays a list of available batch jobs and each batch job scheduled time, actual run start date/time, actual run end run date/time, and job status.

The following screen mockup provides a visual of what the CBSS Login screen and View Batch Job screens may look like and are not intended to represent the final approved screen layouts.

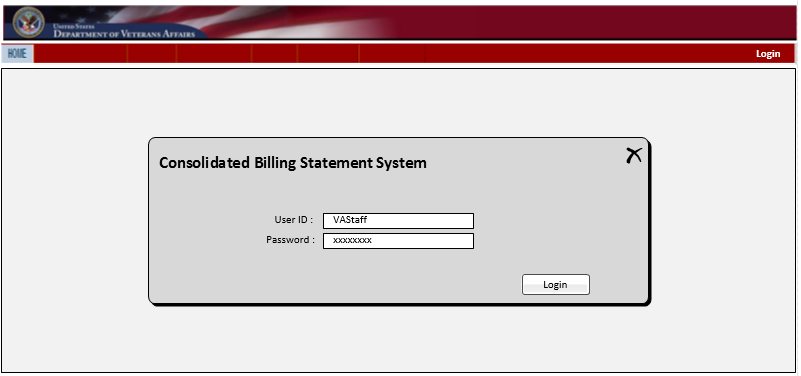


Figure ‑: Login Screen

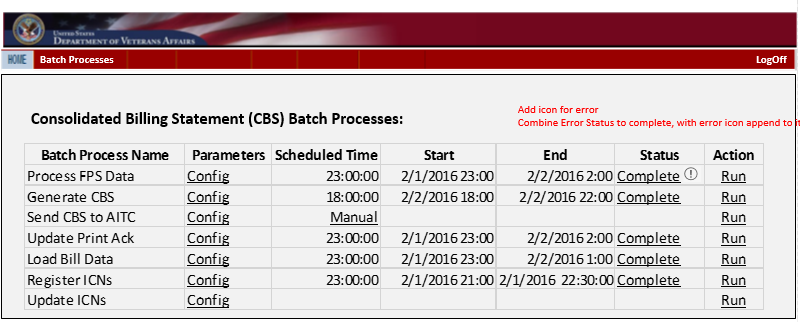


Figure ‑: View Batch Job Screen

#### Configure Batch Job

Each batch job can be configured to run automatically on a daily basis or manually. To configure a batch job, the CBSS User would select ‘Config’ on the appropriate batch job to be configured. If daily is selected, the user must enter a time the job will run. The following screen mockup provides a visual of what the Configure Batch Job screens may look like and is not intended to represent the final approved screen layout.

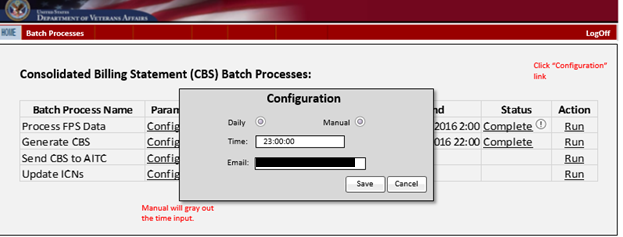


Figure ‑: Configure Batch Job screen

#### View Batch Job Status

To view the status of a completed batch job, select the Complete status hyperlink. The system will display the following Batch Job Status screen. The status screen will have specific information for each batch job as listed.



Figure ‑: Sample FPS Batch Job Status Screen

#### Manually Run Batch Job

To view a manually run batch job, select the Run hyperlink. The system will display a confirmation screen verifying the run. The confirmation screen will provide the ability to continue and run the job or to cancel. Selecting Continue will start the job and make the Run hyperlink become unavailable for selection. Selecting Cancel will stop the run action leaving the Run hyperlink available for selection.

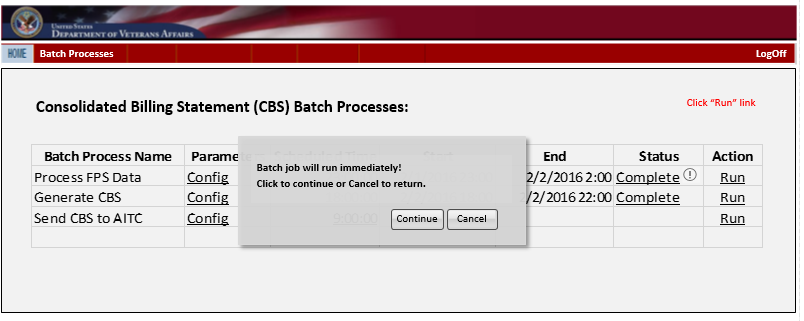


Figure ‑: Run Confirmation

#### Send Nightly Bill Information

Each VAMC will generate and send a nightly file of bill information to CBSS. The file will contain the ICN, oldest bill date, and oldest bill amount for each Veteran. The data layout of the file is documented in the Payment Update Data Layout Design document (Data\_Layout\_Payment\_Update\_VAMC\_To\_CBSS.docx).

### Manage ICN

CBSS will interact with Master Veteran Index (MVI) and Identity and Access Management Services (IAM) in order to stay in synch with the Enterprise unique patient identification. MVI is the authoritative source for patient identity data. It maintains identity data for patients across VA systems, provides a unique universal identifier for each patient, stores identity data as correlations for each system where a patient is known, provides a probabilistic matching algorithm, and includes the Master Patient Index (MPI), Person Service Identity Management (PSIM), and Toolkit (TK).

CBSS will subscribe to an MVI service which will notify CBSS whenever a change is made to a patient’s identity trait(s) (merged with another ICN, etc.). This will enable CBSS to perform appropriate patient identity actions, and ensure that CBSS patient identification is in sync with VistA sites and other Enterprise processing. CBSS shall utilize the MVI decentralized hybrid integration pattern and shall store/maintain the ICN as a trait of the MVI Correlated identifier, subscribe to MVI maintenance messages, and subscribe to/process the same MVI ICN notifications as VistA. CBSS will follow IAM guidelines for interacting with MVI.

### Process APPS Statement Data

This section outlines the workflow for receiving and processing data for the APPS statement. The process will work as follows:

* VistA Payment Files sent to CBSS
* Load Annual VAMC Payment Data
* Generate APPS Data
* Send APPS to AITC-CCPC
* Update APPS Print Acknowledgement

The diagram below illustrates the process for creating the APPS payment data and statement.



Figure ‑: Process the APPS Statement Data

#### VAMC Payment Files (APPS) Sent to CBSS

Each VAMC facility (VistA site) will create a file containing all payments for all Veterans for the previous calendar year (January 1 – December 31) within the first 12 calendar days of a new calendar year. This process will automatically run on January 2nd but can be rerun manually if necessary via a two new menu options in the AR package. Enhancements to the AR package menus are shown below. These files are then consolidated by AITC and sent to CBSS on a daily basis as they are received from the various VistA AR sites.

Each VistA AR site will transmit its APPS file(s) automatically on a specific pre-determined calendar date according the VistA station id.   The pre-determined transmission schedule of station ids and which station transmits on which day is attached below.



**NOTE:** The APPS transmission start date and schedule may be adjusted based on multi-site performance testing.

The data that is extracted from the various VistA AR sites needs to be validated for consistency to ensure that CBSS is working with complete and accurate data when processing the various VistA Sites to consolidate into an annual payment statement. As VistA is the source of record for AR payment data, consistency checks (i.e., data validations) need to be implemented in VistA to ensure that what is sent to CBSS is accurate and consistent.

Additionally, the consistency checks need to be implemented in such a manner so they are run incrementally throughout the calendar year in order to allow VistA sites adequate time to address any data anomalies in a timely manner rather the a large volume of "data fixes" at the end of the year, just prior to the APPS processes that will occur each January.

Primary VistA Selection Method:

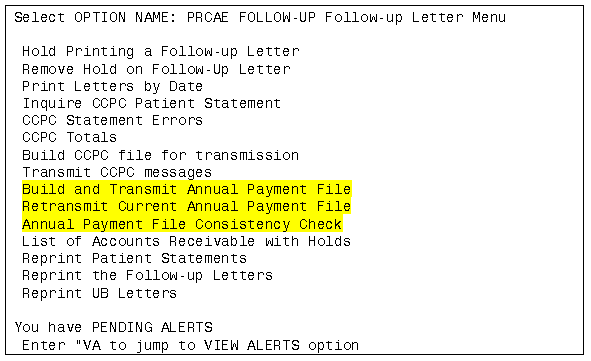


Figure ‑: VistA AR Menu Options for APPS – Primary Menu Selection Method

Second VistA Selection Method:

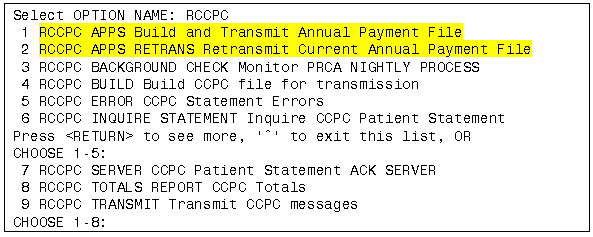


Figure ‑: VistA AR Menu Option for APPS – Second New Menu Option

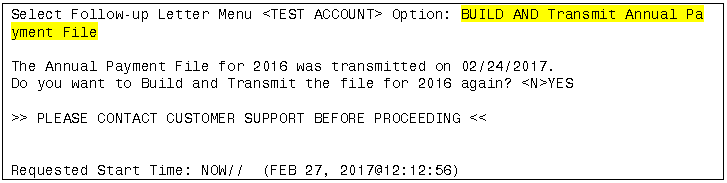


Figure ‑: Build and Transmit Annual Payment File Menu Options – User Interaction

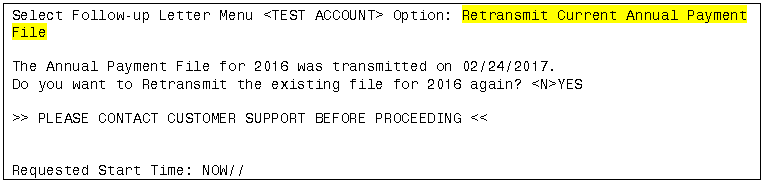


Figure ‑: Retransmit Current Annual Payment File – User Interaction

Help Text is provided when two question marks (??) are entered at the “Do you want to Build and Transmit the file for 2016 again? <N>”

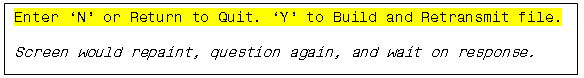


Figure ‑: APPS Help Text - Build and Transmit Annual Payment File

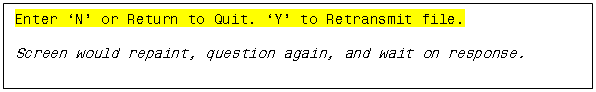


Figure ‑: APPS Help Text - Retransmit Current Annual Payment File

Error Message when APPS File Build or Transmit is not complete for the previous calendar year and the user attempts to build and/or retransmit the file.

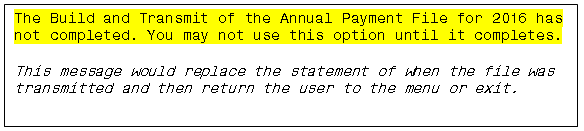


Figure ‑: APPS VistA AR Menu option – Error Message

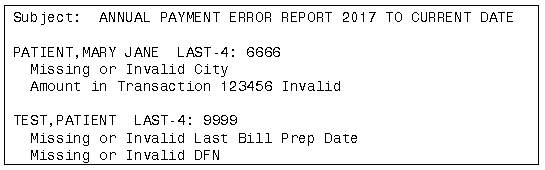


Figure ‑: MailMan message with Payment File Data Consistency Errors

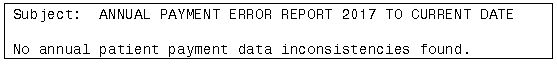


Figure ‑: MailMan message with no Payment File Data Consistency Errors

#### Load Annual VAMC Payment Data

Load Annual VAMC Payment Data will be a scheduled batch job that when triggered will load the VAMC payment data from AITC/CCPC into CBSS. Prior to loading the files, CBSS will perform basic validation to ensure the data is not corrupt or the file is not empty. If data validation is successful, CBSS will save the data. If validation fails, an error message will be generated. A CBSS user will work with AITC to correct and retransmit the file. Upon completion of the job an email notification will be sent to the email distribution group along with a success or failure specific subject. The email will contain a list of all files processed and their status.

The information about the job is shown in the following email example. The information in the email will also be available through the CBSS GUI.

**To:**

**From:**

**Subject:** CBSS – Load Annual VAMC Payment Data - <Status>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Batch Process Name: Load Annual VAMC Payment Data

Start: 1/3/2017 23:00

End: 1/4/2017 2:00

Status: Complete

VAMC Payment Files Received: 100

VAMC Payment Files Processed: 98

Unprocessed Files:

<SiteId>-APPS-<mmddyyyy>.txt

<SiteId>-APPS-<mmddyyyy>.txt

Total VAMC Payment Files Received To Date: 146

VAMC Payment Files Remaining: 4

VAMC Payment Files Remaining from Sites:

<SiteId1> <SiteName1>

<SiteId2> <SiteName2>

<SiteId3> <SiteName3>

<SiteId4> <SiteName4>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Please don't reply directly to this automatically generated email message.

Figure ‑: CBSS Load Annual VAMC Payment Data Status

#### Generate APPS Statement Data

Generate APPS Statement Data job will consolidate the payments by Veteran. The process begins when the Generate APPS Statement Data batch job is executed. It includes the business logic to aggregate the payments by Veteran and calculate a total in a consolidated annual payment statement and stored in the database.

CBSS will display a successful notice when the job is complete. CBSS will display an error notification if unable to generate the APPS statement data files. Upon completion of the job an email notification will be sent to the email distribution group along with a success or failure specific subject. The email will contain a count of statements processed and their status.

The information about the job is shown in the following email example. The information in the email will also be available through the CBSS GUI.

**To:**

**From:**

**Subject:** CBSS - Generate APPS Data - <Status>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Batch Process Name: Generate APPS Data

Start: 1/9/2017 23:00

End: 1/10/2017 2:00

Status: Complete

Total APPS Statements Available: 1,888,900

Total APPS Statements Generated: 1,888,898

Unprocessed Records:

<ICN> <Site Number> <Last Name>

<ICN> <Site Number> <Last Name>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Please don't reply directly to this automatically generated email message.

Figure ‑: CBSS Generate APPS Data Status

#### Send APPS Statement Data File(s) to AITC/CCPC

After all VistA payment files have been received and loaded, and the processing of all APPS data is completed, the Send APPS Data to AITC-CCPC job can be executed. This job will process all the payment data by Veteran to create the APPS statement data files and copy them to the SFTP server for AITC. The number of files created by this job is determined by the number of the Veteran statements that should be included in each file.

CBSS will display a successful notice when the job is complete. CBSS will display an error notification if unable to copy the APPS statement data files to the SFTP server. Upon completion of the job an email notification will be sent to the email distribution group along with a success or failure specific subject. The email will contain a count of the files sent to AITC and the number of APPS statements within those files.

The information about the job is shown in the following email example. The information in the email will also be available through the CBSS GUI.

**To:**

**From:**

**Subject:** CBSS - Send APPS to AITC-CCPC - <Status>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Batch Process Name: Send APPS to AITC-CCPC

Start: 1/12/2017 23:00

End: 1/14/2017 2:00

Status: Complete

Total APPS Files Sent: 12

Total APPS Statements Sent: 1,888,898

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Please don't reply directly to this automatically generated email message.

Figure ‑: CBSS Send APPS to AITC-CCPC Status

#### Update APPS Print Acknowledgement

AITC-CCPC will send print acknowledgements back to CBSS when the APPS statements have been processed. The Update APPS Print Acknowledgement job will update the APPS status to indicate that it is complete.

CBSS will display a successful notice when the job is complete. CBSS will display an error notification if the APPS statements were unable to be processed. Upon completion of the job an email notification will be sent to the email distribution group along with a success or failure specific subject. The email will contain a count of the APPS statement acknowledgements that were received and processed.

The information about the job is shown in the following email example. The information in the email will also be available through the CBSS GUI.

**To:**

**From:**

**Subject:** CBSS – Update APPS Print Acknowledgement - <Status>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Batch Process Name: Update APPS Print Ack

Start: 1/14/2017 23:00

End: 1/15/2017 2:00

Status: Complete

Total APPS Statement Acknowledgements Received: 1,888,898

Total APPS Statement Acknowledgements Processed: 1,888,898

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Please don't reply directly to this automatically generated email message

Figure ‑: CBSS Update APPS Print Acknowledgement Status

#### Manage APPS Batch Processing Jobs

The APPS batch jobs will be managed through the CBSS GUI, following the established procedures the CBSS User would follow in order to manage the monthly consolidated billing statement jobs. The CBSS User will be able to view, configure, and manually run the APPS Batch Jobs. A new area will be added to the CBSS GUI for the APPS jobs. The sections below depict and elaborate on these functions. The CBSS User Manual will also be updated to provide detail information about the APPS jobs.

##### View APPS Batch Jobs

The user must first successfully log in to the CBSS GUI and click the new Annual Processes link in order to view the APPS batch jobs. The four annual jobs are listed, including key processing information such as the scheduled date/time, the actual start and end dates/times, and the status of the job.

The following mockup displays the new Annual Batch Process screen and lists the CBSS jobs involved in the generation of the annual statement.



Figure ‑: View CBSS Annual Batch Processes Screen

##### Configure APPS Batch Jobs

The APPS batch jobs can be configured to run either manually or automatically on a scheduled date or recurring within a specified timeframe. The configuration parameters for each job vary slightly and can be updated by clicking the name of the job to open the configuration window.

To schedule the job to run automatically, the user will select the Scheduled option and enter the Start Date and Time that the job will run. Some jobs should run only once, while others may be run over several days and will have an end date as well. If Manual is selected, a CBSS user must manually initiate the job in order for the job to execute.

The following mockups provide a visual of what the configuration window for each of the APPS jobs may look like and include the parameters appropriate for each job.

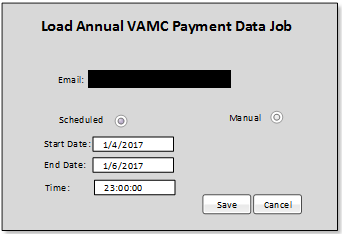
****

Figure ‑: Configuration Screen for the Load Annual VAMC Payment Job

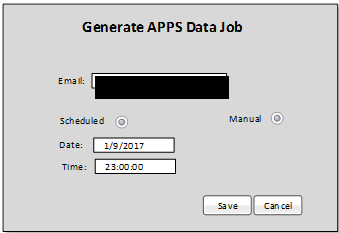
****

Figure ‑: Configuration Screen for the Generate APPS Data Job

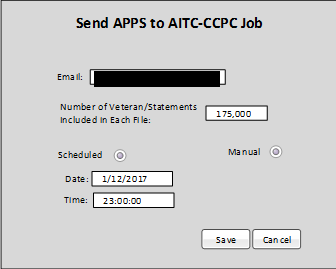
****

Figure ‑: Configuration Screen for the Send APPS to AITC-CCPC Job

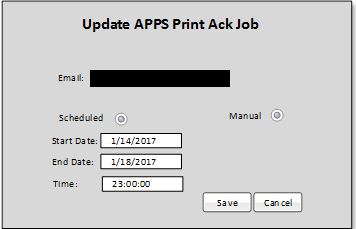
****

Figure ‑: Configuration Screen for the Update APPS Print Acknowledgement Job

##### Manually Run APPS Batch Jobs

The CBSS User can manually run the APPS batch jobs by clicking the Run hyperlink (refer to Figure 2‑7). The CBSS GUI will display a Confirmation message to verify the run. The Confirmation will provide the ability to continue and run the job or to cancel. Selecting Continue will start the job and the Run hyperlink (on the main CBSS screen) will become unavailable for selection. Selecting Cancel will not execute the job and the Run hyperlink will remain available for selection.



Figure ‑: Run Confirmation for the APPS Batch Jobs

##### View Status of APPS Batch Jobs

The CBSS User can view the status of the completed APPS batch jobs by selecting the Completed hyperlink in the Status column. The CBSS GUI will display information about the completion of that APPS job and will include errors if any occurred. The Status screens will contain the same information as is included in the email notifications shown in Section 2.6 of this RSD.

### Enhance VistA AR Reports

Three existing VistA AR reports have been identified that require modification to accommodate the new processing schedule for the generation of the patient statement data files. The three reports include the following:

* CCPC Statement Errors Report
* CCPC Totals Report
* Reprint Patient Statements

All three of these reports are found by navigating to the Clerk’s AR Menu and then the Follow-up Letter Menu.

Enhancements to the Auto-Correction report implemented in PSE Phase 1 (Patch PRCA\*4.5\*307) have been identified as follows:

* A new sort order version of the report is being added to sort by “Auto-Correction Reason”.
* The Auto-Correction Report titles for all current sort versions are being revised to more “user-friendly/plain language” titles.
* The selection option order for the report versions need to be rearranged to accommodate both expected usage and the new Auto-Correction Reason version.
* When running the Auto-Correction report, the user selection criteria will default to the Auto-Correct Reason option. The user will only need to hit <ENTER> to select the default, but may change the selection.

#### CCPC Statement Errors Report

The CCPC Statement Errors report will be updated to report on statement errors based on the new 16-day cycle, which starts the first of the month rather than the current full-month monthly cycle. The VistA AR user will be presented with a new option to run the report for any date on which there are error codes, or run the report for all dates on which error codes exist.

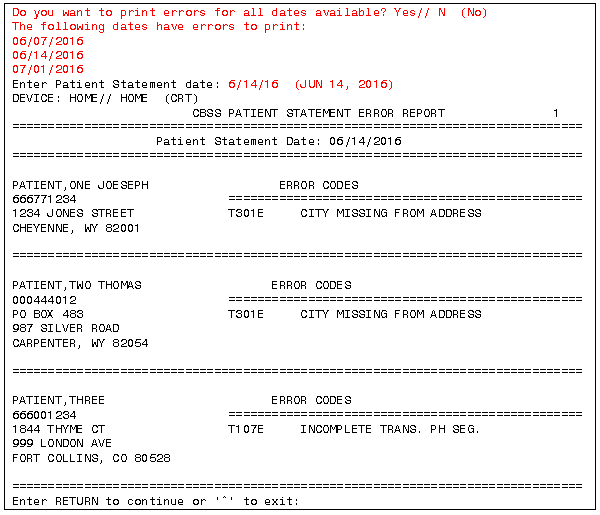


Figure ‑: CCPC Patient Statement Errors report – ran for one statement date

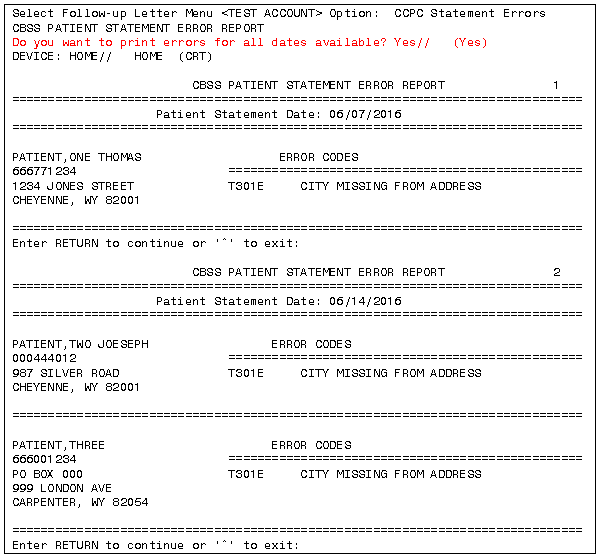


Figure ‑: CCPC Patient Statement Errors report – ran for all statement error dates

#### CCPC Totals Report

The CCPC Totals report will be updated to report on statement totals based on the newly modified 16-day cycle which starts the first day of the month rather than the current full-month monthly cycle. The report can be ran for a single summary total, subtotals by date, or a single user selected date.

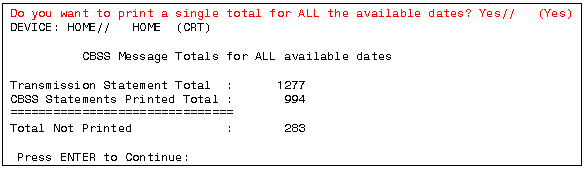


Figure ‑: CBSS Totals report – ran for a single summary total

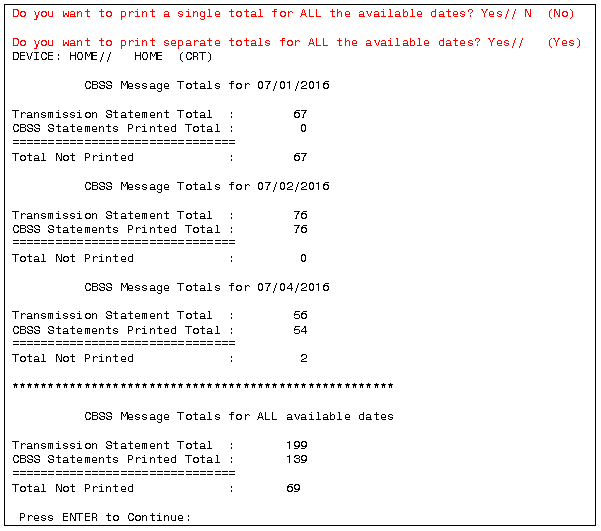


Figure ‑: CBSS - Totals report – ran for subtotals by date, and grand summary total

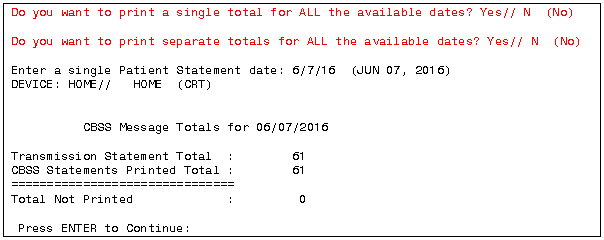


Figure ‑: CBSS Message Totals report – ran for a user selected date

#### Reprint Patient Statements

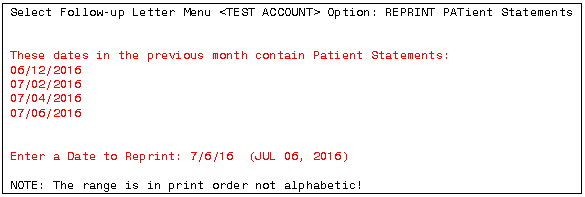
The Reprint Patient Statement menu option will allow all statements to be reprinted based on the newly modified 16-day cycle which starts the first day of the month rather than the current full-month monthly cycle.

Figure ‑: Reprint Patient Statements menu option

#### Auto-Correction Report – Sort by Auto-Correct Reason

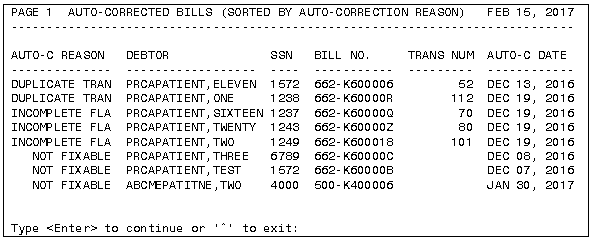


Figure ‑: Auto-Correction Report - sort by Auto-Correct Reason version

#### Updated titles For all Auto-Correct Report versions

The follow are plain language titles for different sort versions of the Auto-Correct Report. The new titles remove all abbreviations to make each more user-friendly.

**Current Title:** BILLS THAT HAVE BEEN AUTO-CORRECTED (SORTED BY BILL #)

**New Title:** AUTO-CORRECTED BILLS (SORTED BY BILL #)

**Current Title:** BILLS THAT HAVE BEEN AUTO-CORRECTED (SORTED BY DEBTOR)

**New Title:** AUTO-CORRECTED BILLS (SORTED BY DEBTOR)

**Current Title:** BILLS THAT HAVE BEEN AUTO-CORRECTED (SORTED BY AUTO-C DT)

**New Title:** AUTO-CORRECTED BILLS (SORTED BY AUTO-CORRECTION DATE)

**Current Title:** BILLS THAT HAVE BEEN AUTO-CORRECTED (SORTED BY TRANS #)

**New Title:** AUTO-CORRECTED BILLS (SORTED BY TRANSACTION NUMBER)

**Current Title:** BILLS THAT HAVE BEEN AUTO-CORRECTED (SORTED BY AUTO-C RN)

**New Title:** AUTO-CORRECTED BILLS (SORTED BY AUTO-CORRECTION REASON)

#### Auto-Correct Report Sort Version Selection Option Order

The user sort options by which the report can be ran will be re-arranged in the order selection to accommodate the anticipated most used versions at the top. The new Auto-Correct Reason sort version will be listed first.

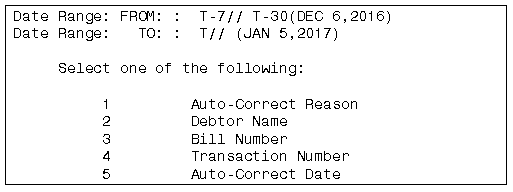


Figure ‑: Auto-Correct Report Sort Selection Order

#### Default of the Auto-Correct Report Use Selection

The Auto-Correct Report will default to the Auto-Correct Reason sort version. The user may accept the default or make another selection prior to continuing.

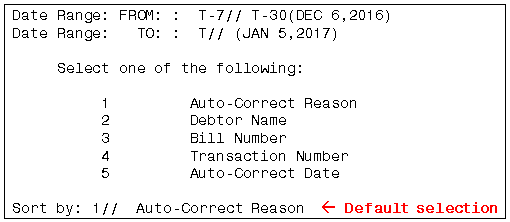


Figure ‑: Default Selection for Auto-Correct Report Sort Versions

### Functional and Non-Functional Requirements

Phase 2 development culminates with the development of processes, features and data necessary to generate a single monthly consolidated patient statement and the annual payment statement. This section includes the functional requirements necessary to implement the capabilities identified in Section 2.6 to generate consolidated patient statements, annual payment summary statement, and distribution of payments. In order to provide traceability across project artifacts, the following section is organized by the Business Need identified in the PSE PWS and the capabilities identified in Section 2.

#### Functional Requirements

Table ‑: CBS Functional Requirements

| **BN** | **Item** | **Type** | **Business Need** | **RDNG #** |
| --- | --- | --- | --- | --- |
| BN 2 |  |  | Create the foundation of a consolidated patient statement. |  |
| BN 2.1 |  |  | Analyze and design the foundation software and processes for the creation of a consolidated patient statement. |  |
| BN 2.2 |  |  | Create the preliminary features of an initial system containing a monthly consolidated patient statement that reflects activity throughout the VA system. |  |
| BN 3 |  |  | Consolidate patient statement(s) within a single billing cycle. |  |
| BN 3.3 |  |  | The system shall generate a consolidated statement combining all active outstanding account charges (regardless of the VA facility) based on the Veteran's billing cycle. |  |
| BN 7 |  |  | The system shall employ PIV 2 Factor Authentication for application access and security. |  |
|  | 1.0.0 | Epic | Generate and Load FPS Data |  |
| BN 2.2, 4 | 1.1.0 | User Story | As a VistA user, I want FPS data sent to CBSS so that facility patient statement transactions can be consolidated into a single patient statement. | 880275 |
| BN 2.1, 4 | 1.1.1 | Req | Each VAMC shall send FPS data to CBSS 16 times a month. Each transmission will contain a set of Veterans based on last name. (See [Table 2-7](#_Modify_the_FPS))  Note: It is assumed that duplicate patient statement data is not sent per site. | 880307 |
| BN 2.2, 4 | 1.1.2 | Req | The FPS data file shall be enhanced to include new data elements. (CBS file layout can be found in the Phase 2 SDD.) (The new data elements are identified in the [Table 2-6](#_Enhance_the_FPS) in this RSD.) | 880605 |
| BN 2.2, 4 | 1.1.8 | Req | The “Build CCPC file for transmission” menu option shall be enhanced with a statement date prompt to accommodate the 16-day per month FPS file transmission cycle. | 880607 |
| BN 2.2, 4 | 1.1.9 | Req | The user must enter a valid date format at the statement date prompt in the “Build CCPC file for transmission” menu option. | 880608 |
| BN 2.2, 4 | 1.1.10 | Req | The user must enter a date for which billing statement data should be generated, per the 16-day schedule in the “Build CCPC file for transmission” menu option’s statement date prompt. When an incorrect date is entered, the user is presented with the following message “INVALID STATEMENT DATE”. | 880609 |
| BN 2.2, 4 | 1.1.11 | Req | The “Transmit CCPC messages” menu option shall be enhanced with a statement date prompt to accommodate the 16-day per month FPS file transmission cycle. | 880611 |
| BN 2.2, 4 | 1.1.12 | Req | The user must enter a date for which a CCPC file exists at the statement date prompt in the “Transmit CCPC messages” menu option.  When an incorrect (i.e., non-existent file) date is entered, the user is presented with the following message “There is not a CCPC file for this date”. | 881136 |
| BN 2.2, 4 | 1.1.13 | Req | The user must enter a valid date format in the statement date prompt in the “Transmit CCPC messages” menu option. (See [Figure 2-10](#Figuer_2_10)) | 881137 |
| BN 2.2, 4 | 1.1.14 | Req | When a user enters “??” at the statement date prompt within the “Build CCPC file for transmission” and “Transmit CCPC messages” menu options, the VistA system displays help on the acceptable date formats that may be entered. (See [Figure 2-7](#Figuer_2_7)) | 881138 |
| BN 2.2,4 | 1.1.15 | Req | When the VistA AR user attempts to build or re-transmit the APPS file but it has not yet been generated for the previous calendar year, the system presents the following error message “The Build and Transmit of the Annual Payment File for <previous-calendar-year> has not completed. You may not use this option until it completes”. | 881139 |
| BN 2.2, 4 | 1.1.3 | Req | If the ICN is null in the FPS file, a Mailman message will be sent in order to identify the records containing the null ICN. | 881140 |
| BN 2.4, 4 | 1.2.0 | User Story | As a CBSS user, I want FPS data files processed by CBSS so that facility patient statement transactions can be consolidated into a single patient statement. | 881141 |
| BN 2.2, 4 | 1.1.5 | Req | CBSS will perform validations on the FPS data file.  Note: Refer to Appendix A.2 for specific validations performed against the FPS file. | 881142 |
| BN 2.2, 4 | 1.1.6 | Req | If any validation fails in the FPS file, the entire file is rejected and will need to be corrected and re-transmitted. | 881143 |
| BN 2.2, 4 | 1.2.1 | Req | CBSS shall have an automated batch job to load and store FPS data files from each VAMC sites. | 881144 |
| BN 2.2, 4 | 1.2.2 | Req | CBSS shall create a unique patient account number for each Veteran. | 881555 |
| BN 2.1, 4 | 1.2.3 | Req | CBSS shall capture and store the status of the batch job. | 881556 |
| BN 2.2, 4 | 1.2.4 | Req | CBSS shall capture the date and time each file is loaded. | 881557 |
| BN 2.2, 4 | 1.2.5 | Req | CBSS shall capture the processing status and/or error reason of failure for each FPS file. | 881558 |
| BN 2.2, 4 | 1.2.6 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group. | 881559 |
|  | 2.0.0 | Epic | Generate CBS | 881560 |
| BN 2.1, 3.3 | 2.1.0 | User Story | As a CBSS user, I want the ability to aggregate and calculate FPS so that a CBS can be generated. | 881561 |
| BN 2.1, 3.3 | 2.1.1 | Req | CBSS shall aggregate and calculate patient account balances for transactions that occurred across VAMCs during the patient’s billing cycle. Patient account balance includes: Previous Balance (unpaid transactions from previous statements), Current Balance (charges minus payments received during the current statement cycle), and Total Balance (combines Previous Balance and Current Charge amounts). | 881562 |
| BN 2.1, 3.3 | 2.1.2 | Req | CBSS shall prefix the Veteran’s primary site DFN followed by the first 5 characters of the Veteran last name as the account number on the CBS. | 881563 |
| BN 2.1, 3.3 | 2.1.3 | Req | CBSS shall use the Person Traits from the FPS data with the most recent visit date. | 881564 |
| BN 2.1, 3.3 | 2.1.4 | Req | CBSS shall use the Veteran address from the FPS data with the most recent visit date. | 881565 |
| BN 2.1, 3.3 | 2.1.5 | Req | CBSS shall use the Site Id and Address from the FPS data with the most recent visit date. | 881566 |
| BN 2.1, 3.3 | 2.1.6 | Req | CBSS shall use the Statement Cycle Date from the FPS data with the most recent visit date. | 881567 |
| BN 2.2, 3.3 | 2.1.7 | Req | CBSS shall capture and store the status of the Generate CBS batch job. | 881568 |
| BN 2.2, 3.3 | 2.1.8 | Req | CBSS shall capture the processing status and/or error reason of failure for each CBS. | 881569 |
| BN 2.2, 3.3 | 2.1.9 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSS User group email distribution list. | 881570 |
|  | 3.0.0 | Epic | Send CBS | 881571 |
| BN 2.2, 3.3 | 3.1.0 | User Story | As a CBSS user, I want the ability to create and send CBS files to AITC/CCPC so that the CBS can be formatted and mailed to Veterans. | 881572 |
| BN 2.2, 3.3 | 3.1.1 | Req | CBSS shall have configurable batch jobs to generate and send CBS file(s) to AITC/CCPC. | 881573 |
| BN 2.2, 3.3 | 3.1.2 | Req | CBSS shall have the ability to send daily CBS files to AITC/CCPC.  For each CBS transmission to AITC, two files are sent:   1. The “P1” file includes Veterans who have statement data from only one site within the statement date range. 2. The “Multi-Site” file includes Veterans who have statement data from two or more sites within the statement date range.   For the Multi-Site file, the data is sorted so that the primary site data is first to allow printing of the primary site transaction data at the top of Billing Statement’s transaction detail section. The file is sorted further alphabetically by site name for all other site data. | 881574 |
| BN 2.2, 3.3 | 3.1.3 | Req | AITC/CCPC shall send CBSS print acknowledgement of the CBS. | 881575 |
| BN 2.2, 3.3 | 3.1.4 | Req | CBSS shall have the ability to receive consolidated print acknowledgements from AITC. | 881576 |
| BN 2.2, 3.3 | 3.1.5 | Req | CBSS shall have the ability to translate consolidated acknowledgements into individual VAMC acknowledgements. | 881577 |
| BN 2.2, 3.3 | 3.1.6 | Req | AITC/CCPC shall have the ability to receive and distribute site acknowledgements to each VAMC. | 881578 |
| BN 2.2, 3.3 | 3.1.7 | Req | VistA AR shall have the ability to receive site acknowledgements from AITC/CCPC. | 881579 |
| BN 2.2, 4 | 3.1.8 | Req | CBSS shall capture and store the status of the batch job. | 881580 |
| BN 2.2 | 3.1.9 | Req | CBSS shall capture the processing status and/or error reason of failure. | 881581 |
| BN 2.2 | 3.1.10 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSS User group email distribution list. | 881582 |
| BN 2.2 | 3.1.11 | Req | CBSS shall identify when a second CBS has been created (for a Veteran for the month) so that AITC/CCPC can add an explanation message to the statement. | 881584 |
| BN 2.2 | 3.1.12 | Req | CBSS shall send an email notification when an error occurs in the print acknowledgement files. | 881583 |
| BN 2.2 | 3.1.13 | Req | VistA AR shall have the ability to update the statement run date for sites that run at the end of the month so that Veterans will not receive multiple statements. | 881585 |
| BN2.2 | 3.1.14 | Req | Whenever the Send CBS job is started, CBSS shall perform a check to see if the Generate CBS job is already actively running. If the Generate CBS process is running, the Send CBS batch job will not be started. | 881586 |
| BN2.2 | 3.1.15 | Req | When the Send CBS job does not initially start because the Generate CBS job is actively running, CBSS shall retry a start every 15 minutes and will stop retrying after 2 hours. If the Send CBS stops due to the 2 hour retry timeout, CBSS will send an email notification to the CBSS distribution group that the job did not run and needs to be manually started. | 881588 |
|  | 4.0.0 | Epic | Manage Bill | 881589 |
| BN 3.3, 4 | 4.1.0 | User Story | As a CBSS user, I want ICN, oldest bill balance and date sent from each VAMC to CBSS so that CBSS can determine payment allocation. | 881590 |
| BN 3.3, 4 | 4.1.6 | Req | CBSS will perform validations on the bill data file.  Note: Refer to Appendix A.2 for specific validations performed against the bill data file. | 881591 |
| BN 3.3, 4 | 4.1.7 | Req | If a validation check of the bill data files’ PD record fails, only the specific record that fails will be rejected. | 881592 |
| BN 3.3, 4 | 4.1.8 | Req | If the bill data file itself is corrupt or any validation of the files’ “PU” record, the entire file will be rejected and no data records contained in the file will be processed. | 881593 |
| BN 3.3, 4 | 4.1.1 | Req | CBSS shall have an automated batch job to load and store bill data from each VAMC. | 881594 |
| BN 3.3, 4 | 4.1.2 | Req | CBSS shall capture and store the status of the file processed by the Process Bill Data batch job. | 881595 |
| BN 3.3, 4 | 4.1.3 | Req | CBSS shall capture and store the status of the batch job. | 881596 |
| BN 3.3, 4 | 4.1.4 | Req | CBSS shall capture the processing status and/or error reason of failure. | 881597 |
| BN 3.3, 4 | 4.1.5 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSS User group email distribution list. | 881598 |
| BN 3.3, 4 | 4.2.0 | User Story | As a Vista user, I want to send a nightly file of ICN, oldest bill balance and date so that CBSS can correctly determine payment allocation. | 881599 |
| BN 3.3, 4 | 4.2.1 | Req | Each VAMC shall send bill data to CBSS. (See the section in the RSD “Send Nightly Bill Information”.) | 881600 |
| BN 3.3, 4 | 4.2.2 | Req | CBSS shall send AITC/Lockbox a nightly file of payment allocation for all Veterans who have a bill balance greater than zero. | 881601 |
|  | 5.0.0 | Epic | Manage Batch Jobs | 881602 |
| BN 2.2 | 5.1.0 | User Story | As a CBSS user, I need the ability to view batch job information so that CBS files can be effectively managed. | 881603 |
| BN 2.2 | 5.1.1 | Req | CBSS shall provide the ability to view the status of each batch job. | 881604 |
| BN 2.2 | 5.1.2 | Req | CBSS shall provide the ability to view the batch job start and end date/time. | 881605 |
| BN 2.2 | 5.1.4 | Req | CBSS shall provide the ability to view the status of a completed job. | 881606 |
| BN 2.2 | 5.2.0 | User Story | As a CBSS user, I need the ability to configure a batch job so that CBS files are processed correctly. | 881607 |
| BN 2.2 | 5.2.1 | Req | CBSS shall provide the ability to configure a job to be run manually or automatically daily on a specific time. | 881608 |
| BN 2.2 | 5.2.2 | Req | CBSS shall store the date/time and user modifying the batch job. | 881609 |
| BN 2.2 | 5.3.0 | User Story | As a CBSS user, I need the ability manually run a batch job so that CBS files are processed correctly. | 881821 |
| BN 2.2 | 5.3.1 | Req | CBSS shall provide the ability to manually run a batch job. | 881823 |
| BN 7 | 5.4.0 | User Story | As a CBSS User, I want the system to require two factor authentication (i.e., PIV card and PIN) and authorization through the IAM Provisioning services so that only authorized users are successfully logged in and granted access to CBSS. | 881824 |
|  | 6.0.0 | Epic | Manage ICN | 881825 |
| BN 2.1, 4 | 6.1.0 | User Story | As a CBSS user, I want to update an ICN for a Veteran when it is changed by MVI so that Veterans are uniquely identified by the correct ICN in CBSS. | 881826 |
| BN 2.1, 4 | 6.1.1 | Req | CBSS shall register all new site and DFN combinations with MVI. | 881827 |
| BN 2.1, 4 | 6.1.2 | Req | CBSS shall receive and update ICN changes based on broadcast ICN updates from MVI. | 881828 |
| BN 2.2 | 6.1.3 | Req | CBSS shall capture and store the status of the batch job. | 881830 |
| BN 2.2 | 6.1.4 | Req | CBSS shall capture the processing status and/or error reason of failure. | 881831 |
| BN 2.2 | 6.1.5 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSS User group email distribution list. | 881832 |
| BN 2.2 | 6.1.6 | Req | CBSS shall retransmit a register request every 24 hours until a response is received. | 881833 |
| BN 2.2 | 6.1.7 | Req | CBSS shall inform the CBSS User when no response is received back from MVI to the registration request. | 881834 |
|  | 7.0.0 | Epic | View CBS | 881835 |
| BN 2.2 | 7.1.0 | User Story | As a CRM user, I want to view the consolidated patient statement so that I can respond to patient inquiries regarding their bill. | 881838 |
| BN 2.1 | 7.1.1 | Req | CRM shall call CCPC to get the Veteran CBS PDF using the DFN. | 881836 |
| BN 2.2 | 7.1.2 | Req | CCPC shall translate the CBS data to a PDF and send to CRM. | 881837 |
|  | 9.0.0 | Epic | Manage Print Acknowledgement | 881839 |
| BN 2.4, 4 | 9.1.0 | User Story | As a CBSS user, I want print vendor data files processed by CBSS so that CBSS has confirmation that a Veteran’s CBS is printed and mailed. | 881840 |
| BN 2.2, 4 | 9.1.1 | Req | CBSS shall have an automated batch job to validate, load, and process print acknowledgement data files received from AITC/CCPC. | 881841 |
| BN 2.2, 4 | 9.1.2 | Req | CBSS shall capture the processing status and/or error reason of failure for each print acknowledgement file. | 881842 |
| BN 2.2, 4 | 9.1.3 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group. | 881843 |
| BN 2.2, 4 | 9.1.4 | Req | CBSS shall reject the entire CBS Print Acknowledgement file if any validation error occurs.  Note: Refer to Appendix A.2 for specific validations performed against the CBS Print Acknowledgement file. | 881844 |

Table ‑: VistA AR Reports Enhancements Functional Requirements

| **BN** | **Item** | **Type** | **Business Need** | **RDNG #** |
| --- | --- | --- | --- | --- |
| BN2 | 8.0.0 | Epic | Enhance VistA AR Report Processes | 882247 |
| BN 2.2, 4 | 8.1.0 | User Story | As a VistA AR user, I want the reports to reflect the new 16-day transm8.0.0ission cycle so that I can accurately view statement data errors and reprint statements based on the modified billing statement schedule. | 881845 |
| BN 2.1 | 8.1.1 | Req | The CCPC Statement Errors report in VistA shall be updated to reflect the new 16-day processing cycle. | 881846 |
| BN 2.1 | 8.1.1.1 | Req | VistA AR shall allow the CCPC Patient Statement Errors report to run for all dates or for only one calendar date on which statement errors exist. | 881848 |
| BN 2.1 | 8.1.1.2 | Req | When the VistA AR user runs the CCPC Patient Statement Errors report for multiple days, the VistA AR system shall allow the user to continue or exit the report display after each reported date is displayed on the screen. | 882248 |
| BN 2.1 | 8.1.1.3 | Req | When the VistA AR user selects to run the CCPC Statement Errors report for a day on which no statement errors exist, the system will display the message “There are no error files for that date.” | 882249 |
| BN 2.1 | 8.1.2 | Req | The CCPC Totals report in VistA shall be updated to reflect the new 16-day processing cycle. | 881250 |
| BN 2.1 | 8.1.2.1 | Req | VistA AR shall allow the CBSS Message Totals report to be run by three criteria:   1. A single summary total of all available statement message dates 2. Subtotals for each available statement message date, with a grand total of all dates at the end of the report. 3. A single total for a user selected statement message date. | 882251 |
| BN 2.1 | 8.1.2.2 | Req | When the VistA AR user selects to run the CBSS Message Totals report for a day on which no statement messages exist, the system will display the message “There are no records for that date.” | 882252 |
| BN 2.1 | 8.1.3 | Req | The Reprint Patient Statement report in VistA shall be updated to reflect the selection of the reprint dates based on the modified 16-day processing cycle. | 882253 |
| BN 2.1 | 8.1.3.1 | Req | VistA AR shall allow the Reprint Patient Statements menu option to run for any date in which re-printable patient statements exist for the VistA site.  NOTE: Patient Statements will be available for reprint after a print acknowledgement has been processed at the VistA site. | 882254 |
| BN 2.1 | 8.1.3.2 | Req | When the VistA AR user selects to run the Reprint Patient Statements menu option for a day on which no re-printable statements exist, the system will display the message “No notifications sent on that date”, then the system redisplays the list of dates available for reprint. | 882255 |
| BN 2.1 | 8.1.4 | Req | The CCPC Statement Errors report, CCPC Total report and the Reprint Patient Statement report shall not exceed 78 characters in width so that if queued to MailMan or printed in hard copy the report will render without wrapping lines. | 882256 |
| BN 2.1 | 8.2.1 | User Story | As a VistA AR user I want to view the Auto-Correct Report sorted primarily by the Auto-Correction Reason so that I can quickly determine those transaction discrepancies that were fixed by the Auto-Correction process and those that were not. | 882257 |
| BN 2.1 | 8.2.1.1 | Req | The Auto-Correction Reason sort version of the Auto-Correct report displays the following columns in the order shown and sorts by the column values in the same order (i.e., the report is primarily sorted by the Auto-Correction Reasons, then secondarily sorted by the additional columns)   1. Auto-Correction Reason 2. Debtor (SSN last 4 digits\*) 3. Bill Number 4. Transaction Number 5. Auto-Correction Date   \*SSN displays directly after Debtor, but is not part of the secondary sort order. | 882258 |
| BN 2.1 | 8.2.2 | User Story | As a VistA AR user of the Auto-Correct report, I want the titles of the report versions to be in plain language with no abbreviations so that I can quickly determine which version of the report I am viewing. | 882259 |
| BN 2.1 | 8.2.2.1 | Req | The title of the Auto-Corrected Reason sort version of the Auto-Correct report shall be “AUTO-CORRECTED BILLS (SORTED BY AUTO-CORRECTION REASON)”. | 882260 |
| BN 2.1 | 8.2.2.2 | Req | The title of the Auto-Corrected Bills sort version of the Auto-Correct report shall be “AUTO-CORRECTED BILLS (SORTED BY BILL #)”. | 882261 |
| BN 2.1 | 8.2.2.3 | Req | The title of the Auto-Corrected Debtor sort version of the Auto-Correct report shall be “AUTO-CORRECTED BILLS (SORTED BY DEBTOR)”. | 882262 |
| BN 2.1 | 8.2.2.4 | Req | The title of the Auto-Corrected Date sort version of the Auto-Correct report shall be “AUTO-CORRECTED BILLS (SORTED BY AUTO-CORRECTION DATE)”. | 882263 |
| BN 2.1 | 8.2.2.5 | Req | The title of the Auto-Corrected Transaction Number sort version of the Auto-Correct report shall be “AUTO-CORRECTED BILLS (SORTED BY TRANSACTION NUMBER)”. | 882264 |
| BN 2.1 | 8.2.3 | User Story | As a VistA AR User of the Auto-Correct Report, I want the selection criteria for the sort order versions of the report to display in a specific order and default to the Auto-Correct Reason sort version so that I can quickly run the most commonly used versions of the report. | 882265 |
| BN 2.1 | 8.2.3.1 | Req | The selection order of the Auto-Correction reason will be displayed in the following order:   1. Auto-Correct Reason 2. Debtor Name 3. Bill Number 4. Transaction Number 5. Auto-Correct Date | 882266 |
| BN 2.1 | 8.2.3.2 | Req | The user prompt selection for the Auto-Correct Report will default to the Auto-Correct Reason sort version. The user may accept the default or change the sort order selection to any of the other 4 report versions prior to running the report. | 882267 |

Table ‑: APPS Functional Requirements

| **BN** | **Item** | **Type** | **Business Need** | **RDNG #** |
| --- | --- | --- | --- | --- |
| BN 6 |  |  | The system shall consolidate an annual summary of all patient payments. i.e. requirement for Affordable Care Act. | 851810 |
| 6.1 |  |  | Provide functionality to provide annual patient payment summaries to the Veteran, i.e., requirement for the Affordable Care Act. | 851812 |
| 6.1 | 12.0.0 | Epic | Create an Annual Patient Payment Summary Statement. | 851831 |
| 6.1 | US012 | User Story | As a Veteran, I need to see a list of all payments that I’ve made to the VA for the year so that I can include the amount for tax reporting purposes. | 851814 |
| 6.1 | AC12.1 | Req | The APPS statement shall display all payments made to VA by the Veteran within the previous calendar year, from January 1 to December 31. | 851827 |
| 6.1 | AC12.2 | Req | The APPS statement will be created for the Veteran if the Veteran has had account activity in the previous calendar year. | 851833 |
| 6.1 | AC12.3 | Req | The APPS statement will reflect the Patient Name and Account number from the VistA annual payment file with the most recent bill preparation date. | 851836 |
| 6.1 | AC12.4 | Req | The APPS statement will reflect the mailing address from the VistA annual payment file with the most recent bill preparation date. | 851837 |
| 6.1 | AC12.5 | Req | The APPS statement will display the return mailing address from the VistA annual payment file with the most recent bill preparation date. | 851838 |
| 6.1 | US022 | User Story | As a VistA AR User, I want the system to run a consistency check on the data that are to be included in the annual patient payment files (i.e., APPS files) so that I can get a list of any data consistency errors on patient, debtor, and AR transaction data and address any anomalies prior to building and transmitting the annual files to AITC. |  |
| 6.1 | AC22.1 | Req | A scheduled data consistency check batch process will be ran automatically by the system on the 15th day of the months of March, June, September, and December of each calendar year. The data consistency checks to be run are defined in Table A-4-8. |  |
| 6.1 | AC22.2 | Req | A new VistA AR menu sub-option shall be created and available to authorized users in the ‘Follow-Up Letter Menu’ to allow the user the ability to run a data consistency check on the data to be included in the annual payment data files. The new menu option will be named “Annual Payment File Consistency Check”. |  |
| 6.1 | AC22.3 | Req | The Annual Payment File Data Consistency Check menu option will invoke a batch process to run the data consistency checks defined in Table A-4-8. |  |
| 6.1 | AC22.4 | Req | The output of the annual payment data consistency check batch process will be a MailMan message that lists data inconsistencies found. Or, if no data inconsistencies found, the MailMan message body will contain the text “No annual patient payment data inconsistencies found.”  The title of the Mailman Message: ANNUAL PAYMENT ERROR REPORT <year> TO CURRENT DATE Refer to Section 2.6.4.1 for the content and layout of the mailman message. |  |
| 6.1 | AC22.5 | Req | Help text is available in the ‘Annual Payment File Data Consistency Check’ menu option. Refer to Section 2.6.4.1 for the content of the help text. |  |
| 6.1 | 13.0.0 | Epic | Load Annual VAMC Payment Data | 851840 |
| 6.1 | US013 | User Story | As a VistA AR user, I want payment data sent to CBSS so that facility patient payments can be consolidated into an annual payment summary statement. | 851841 |
| 6.1 | AC13.1 | Req | Each VAMC shall run a scheduled job to build payment data files containing all payments that have posted to VistA by all Veterans within the previous calendar year (January 1 to December 31). The scheduled job to build the file will run on January 2nd of each year.  Each file created will be transmitted to AITC on a specific scheduled date assigned according to the each station ID.  **NOTE:** Refer to section 2.6.4.1 for the schedule of station ID transmission dates.  **NOTE:** The APPS transmission start date and schedule may be adjusted based on multi-site performance testing. | 852035 |
| 6.1 | AC13.2 | Req | The Posting Date of the payment will be used to determine its inclusion in the payment data file. (This is the same payment Posting Date that is displayed on the monthly billing statement.) | 852036 |
| 6.1 | AC13.3 | Req | Any Payment record with a zero or NULL dollar amount is excluded from the annual payment data file. | 882268 |
| 6.1 | US019 | User Story | As a VistA AR user, I need to ability to manually run the annual payment data file build and transmit jobs so that when there is an issue with the jobs when originally run automatically the files can be rebuilt and retransmitted as needed after corrective action has been taken to address the issue. | 882269 |
| 6.1 | AC19.1 | Req | A new VistA AR menu sub-option shall be created and available to authorized users in the ‘Follow-Up Letter Menu’ to allow the user the ability to manually build and transmit the annual payment data files.  The new menu option will be named “Build and Transmit Annual Payment File”. | 882271 |
| 6.1 | AC19.2 | Req | A new VistA AR menu sub-option shall be created and available to authorized users in the ‘Follow-Up Letter Menu’ to allow the user the ability retransmit the annual payment data files.  The new menu option will be named “Retransmit Current Annual Payment File”. | 882272 |
| 6.1 | AC19.3 | Req | The ‘Build and Transmit Annual Payment File’ menu option will prompt the user to enter a start date and time. | 882273 |
| 6.1 | AC19.4 | Req | The ‘Retransmit Current Annual Payment File’ menu option will prompt the user to enter a start date and time. | 882274 |
| 6.1 | AC19.5 | Req | In the ‘Build and Transmit Annual Payment File’ and ‘Retransmit Current Annual Payment File’ menu options a valid VistA date format must be entered. | 882275 |
| 6.1 | AC19.6 | Req | Help text is available in the ‘Build and Transmit Annual Payment File’ and ‘Retransmit Current Annual Payment File’ menu options. Refer to Section 2.6.4.1. | 882276 |
| 6.1 | US014 | User Story | As a CBSS user, I want the VAMC payment data files to be processed by CBSS so that facility patient payments can be consolidated into an annual payment summary statement. | 852037 |
| 6.1 | AC14.1 | Req | CBSS shall have an automated batch job to load and store the payment data files from each VAMC site (Load Annual VAMC Payment Data job). | 852037 |
| 6.1 | AC14.2 | Req | CBSS shall capture and store the status of the batch job (Load Annual VAMC Payment Data job). | 852040 |
| 6.1 | AC14.3 | Req | CBSS shall capture the date and time the batch job is run (Start and End Date/Time) (Load Annual VAMC Payment Data job). | 852041 |
| 6.1 | AC14.4 | Req | CBSS shall capture the processing status and/or any errors for each VAMC payment file (Load Annual VAMC Payment Data job).  NOTE: Note: Refer to Appendix A.2 for specific validations performed against the annual payment file. | 852042 |
| 6.1 | AC14.5 | Req | CBSS shall capture the total number of VistA (VAMC) payment files that were available and processed (Load Annual VAMC Payment Data job). | 852043 |
| 6.1 | AC14.6 | Req | CBSS shall identify the VAMC payments files that were unable to be processed (Load Annual VAMC Payment Data job). | 852044 |
| 6.1 | AC14.7 | Req | CBSS shall capture the total number of VistA payment files that have been received and processed to date (Load Annual VAMC Payment Data job). | 853058 |
| 6.1 | AC14.8 | Req | CBSS shall identify the total number of VistA payment files that have not been sent to CBSS (Load Annual VAMC Payment Data job). | 853059 |
| 6.1 | AC14.9 | Req | CBSS shall identify the VAMC sites that have not sent a payment data file to CBSS (Load Annual VAMC Payment Data Annual VAMC Payment Data job). | 853060 |
| 6.1 | AC14.10 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group (Load Annual VAMC Payment Data Annual VAMC Payment Data job). | 853061 |
| 6.1 | 20.0.0 | Epic | Generate APPS Data | 853062 |
| 6.1 | US020 | User Story | As a CBSS user, I want the ability to consolidate and calculate payment totals by Veteran so that an annual patient payment summary statement can be generated. | 853063 |
| 6.1 | AC20.1 | Req | CBSS shall have an automated batch job that will process the VAMC payment data and consolidate, sort, and calculate totals by Veteran and store the processed data (Generate APPS Data job). | 853064 |
| 6.1 | AC20.2 | Req | CBSS shall capture and store the status of the batch job (Generate APPS Data job). | 853065 |
| 6.1 | AC20.3 | Req | CBSS shall capture the date and time the batch job is run (Start and End Date/Time). (Generate APPS Data job). | 853067 |
| 6.1 | AC20.4 | Req | CBSS shall capture the processing status and/or any errors (Generate APPS Data job). | 853068 |
| 6.1 | AC20.5 | Req | CBSS shall capture the total number of APPS statements available and generated (Generate APPS Data job). | 853069 |
| 6.1 | AC20.6 | Req | CBSS shall identify any unprocessed APPS statement records and display the ICN, Site Number, and Veteran’s Last Name for those records unable to be processed (Generate APPS Data job). | 853070 |
| 6.1 | AC20.7 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group (Generate APPS Data job). | 853071 |
|  | 15.0.0 | Epic | Send APPS Data File to AITC-CCPC | 857153 |
| 6.1 | US015 | User Story | As a CBSS User, I want to create and send the APPS statement data files to AITC-CCPC so that AITC-CCPC can format, print, and mail the APPS statement to Veterans. | 857154 |
| 6.1 | AC15.1 | Req | CBSS shall create and send the APPS data files to AITC-CCPC in batches not to exceed 175,000 statements per file. | 857156 |
| 6.1 | AC15.2 | Req | CBSS shall capture and store the status of the batch job (Send APPS Data to AITC-CCPC job). | 857158 |
| 6.1 | AC15.3 | Req | CBSS shall capture the date and time the batch job is run. (Start and End Date/Time). (Send APPS Data to AITC-CCPC job) | 857159 |
| 6.1 | AC15.4 | Req | CBSS shall capture the processing status and/or any errors. (Send APPS Data to AITC-CCPC job) | 857160 |
| 6.1 | AC15.5 | Req | CBSS shall capture the total number of APPS files sent to AITC-CCPC (Send APPS Data to AITC-CCPC job). | 857161 |
| 6.1 | AC15.6 | Req | CBSS shall capture the total number of APPS statements (within the APPS files) sent to AITC-CCPC (Send APPS Data to AITC-CCPC job). | 857165 |
| 6.1 | AC15.7 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group (Send APPS Data to AITC-CCPC job). | 857168 |
| 6.1 | US016 | User Story | As a CBSS User, I want to receive APPS print acknowledgments from AITC-CCPC so that CBSS can track successful generation of the APPS statements. | 857169 |
| 6.1 | AC16.1 | Req | AITC-CCPC shall send print acknowledgements for the APPS statements to CBSS. | 857170 |
| 6.1 | AC16.2 | Req | CBSS shall receive and display the APPS print acknowledgement from AITC. | 857171 |
| 6.1 | AC16.3 | Req | CBSS shall capture and store the status of the batch job (Update APPS Print Ack job). | 857172 |
| 6.1 | AC16.4 | Req | CBSS shall capture the date and time the batch job is run. (Start and End Date/Time) (Update APPS Print Ack job). | 857174 |
| 6.1 | AC16.5 | Req | CBSS shall capture the processing status and/or any errors. (Update APPS Print Ack job) | 857175 |
| 6.1 | AC16.6 | Req | CBSS shall capture the total number of APPS Statement Acknowledgements received from AITC. (Update APPS Print Ack job) | 857176 |
| 6.1 | AC16.7 | Req | CBSS shall capture the total number of APPS Statement Acknowledgements processed. (Update APPS Print Ack job) | 861754 |
| 6.1 | AC16.8 | Req | CBSS shall send an email notification upon completion of the batch job to the CBSSMonitoring email distribution group. (Update APPS Print Ack job) | 861755 |
| 6.1 | 17.0.0 | Epic | Manage APPS Batch Jobs  Provide administrative functions for VA staff to maintain the batch processing of the APPS data. | 861756 |
| 6.1 | US017 | User Story | As a CBSS User, I need to view batch job information so that I can manage the APPS data process. | 861757 |
| 6.1 | AC17.1 | Req | The APPS batch jobs will be added to the CBSS interface. | 861758 |
| 6.1 | AC17.2 | Req | CBSS shall provide the Date and Time that the APPS batch jobs are scheduled to run. | 861760 |
| 6.1 | AC17.3 | Req | CBSS shall provide the Start and End Dates/Times when the APPS batch jobs have been executed. | 861762 |
| 6.1 | AC17.4 | Req | CBSS shall provide the status of the APPS batch jobs. | 861763 |
| 6.1 | AC17.5 | Req | CBSS shall provide the following additional status information for the Load Payment Data job: Total VistA Payment Files that were available and that were processed, the filenames of any unprocessed VistA files, Total VistA Payment Files that CBSS has received, number of VistA Payment Files that have not yet been received, and the Site Id and Site Name of the VAMC sites that have not yet sent a payment file. | 861764 |
| 6.1 | AC17.6 | Req | CBSS shall provide the following additional status information for the Generate APPS Data job: Total APPS Statements Available, the total that were generated, and the Integrated Control Number (ICN), Site Number, and Veteran Last Name for and APPS statements that were not processed. | 861765 |
| 6.1 | AC17.7 | Req | CBSS shall provide the following additional status information for the Send APPS to AITC-CCPC job: Total APPS files sent and the total number of APPS Statements (as contained within the APPS files). | 861766 |
| 6.1 | AC17.8 | Req | CBSS shall provide the following additional status information for the Update APPS Print Acknowledgement job: Total APPS statement acknowledgements received from AITC-CCPC and the Total APPS Statement Acknowledgements Processed. | 861767 |
| 6.1 | AC17.9 | Req | CBSS shall provide any errors that may have occurred during the execution of the APPS batch jobs. | 861768 |
| 6.1 | AC17.0 | User Story | As a CBSS User, I need to configure the APPS batch jobs so that the APPS data files are processed correctly. | 861769 |
| 6.1 | AC17.1 | Req | CBSS shall provide the ability to enter the email address that should receive automatic email notifications when the APPS batch jobs have completed. | 861776 |
| 6.1 | AC17.2 | Req | CBSS shall provide the ability to configure the APPS batch jobs to be run either manually or scheduled for a specific date and time. | 861777 |
| 6.1 | AC17.3 | Req | CBSS shall provide the ability to configure the Start Date, End Date, and Run Time for the Load Payment Data job. | 861779 |
| 6.1 | AC17.4 | Req | CBSS shall provide the ability to configure the Date and Run Time for the Generate APPS Data job. | 861780 |
| 6.1 | AC17.5 | Req | CBSS shall provide the ability to configure the Date and Run Time for the Send APPS to AITC-CCPC job. | 861782 |
| 6.1 | AC17.6 | Req | CBSS shall provide the ability to configure the Number of Veteran Statements to be included in each data file for the Send APPS to AITC-CCPC job. | 861784 |
| 6.1 | AC17.7 | Req | CBSS shall provide the ability to configure the Start Date, End Date, and Run Time for the Update APPS Print Acknowledgement job. | 861785 |
| 6.1 | AC17.8 | Req | CBSS shall store the date/time and the user modifying the APPS batch job. | 861786 |
| 6.1 | US018 | User Story | As a CBSS User, I need to manually run the APPS batch job so that the APPS data files are processed correctly. | 861787 |
| 6.1 | AC18.1 | Req | CBSS shall provide the ability to manually run the APPS batch jobs. | 861799 |
| 6.1 | AC18.2 | Req | CBSS shall provide the ability to regenerate the APPS data file. | 861800 |

#### Non-Functional Requirements

Table ‑: PSE Phase 2 Non-Functional Requirements

| **BN** | **Item** | **Type** | **Business Need** | **RDNG #** |
| --- | --- | --- | --- | --- |
| 6.1 | US010 | User Story | As a CBSS System Administrator, I want the CBSS system to archive off billing data on a 16-month rolling cycle so that the volume of CBS data in the database and on the server does not become a performance issue. | 882277 |
| 6.1 | AC10.1 | Req | Billing data that is older than 16 months is not available in the CBSS production system. | 882279 |
| 6.1 | US021 | User Story | As a CBSS System Administrator, I want the CBSS system to archive off annual payment patient data on a 16-month rolling cycle so that the volume of payment data in the database and on the server does not become a performance issue. | 862926 |
| 6.1 | AC21.1 | Req | Annual Payment data that is older than 16 months is not available in the CBSS production system. | 882280 |
| N/A | US011 | User Story | As a VistA FileMan user I want to see accurate field descriptions in File #349 so that I have access to usable descriptions about the file’s data. | 882278 |
| N/A | AC11.1 | Req | The correct spelling of the words “recipients” and “acknowledgement” shall be updated in the FileMan descriptions of the fields in node 349.11,.01 and 349.151,.01 respectively. | 882281 |

#### Additional PWS Requirements

The following table provides PWS requirements that were identified for Phase 3. These requirements were reviewed with PSE Stakeholders during the Requirement Elaboration Meeting held 10/26/2015, during which it was determined to move these requirements to Phase 2, as interface requirements are part of Phase 2 development.

Existing interfaces and processes between AITC/CCPC, AITC/Lockbox, VAMC, FMS, TOP, DMC, and CCPC will not be impacted during Phase 2 development so they are out of scope for development. However, these requirements are still part of the overall end-to-end statement process and therefore left in scope from a testing perspective to ensure no impact from the changes to existing functionality.

Table ‑: Additional Requirements

| **Req. ID** | **Primary Text** | **Requirement Status** |
| --- | --- | --- |
| 5.5 | Provide functionality to allow and ensure that payments can be made by Veterans by using an online feature (Pay.gov). | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |
| 5.13 | The system shall maintain existing interfaces with Pay.gov. | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |
| 5.14 | The system shall maintain existing interfaces with Treasury Offset Program (TOP). | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |
| 5.15 | The system shall maintain existing interfaces with 90-day Debt Management Center (DMC). | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |
| 5.16 | The system shall maintain existing interfaces with CCPC Print Contractor. | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |
| 5.17 | The system shall maintain existing interfaces with Lockbox Bank of America. | Existing functionality and out of scope for development activities however will need to be tested to ensure there are no impacts from the new system. |

## Graphical User Interface (GUI) Specifications

Features and functionality within the new CBSS shall adhere to accessibility, security and 508 compliance standards.

Enhancements made to VistA and CBSS user interfaces shall adhere to current accessibility, security and 508 compliance standards.

## Multi-divisional Specifications

There are no new multi-divisional capability requirements of VistA AR. Changes in support of CBSS must be seamless to all VistA users and non-disruptive to existing VistA AR functionality.

## Performance Specifications

This section identifies the dynamic numeric specifications required for CBSS, AR package and the number of users who interact with the AR package.

* CBSS will support the current volume of two million statements printed and sent to Veterans. CBSS architecture is designed to support an increase in number of Veteran statements to the monthly cycle (with addition to CBSS infrastructure, this capability will be benchmarked during the Performance Testing phase of CBSS).
* The CBSS will support processing of at least 150 FPS sites in a 12-hour period.
* CBSS architecture is flexible to accommodate a 10% future growth in CBSS Application usage.
* CBSS will support the processing of data for all APPS statements that will be sent to AITC.

## Quality Attributes Specification

Quality attribute specifications will enhance the supportability, maintainability, portability, testability, and reusability of the VistA AR and CBSS. The enhancements to VistA AR and development of the CBSS will include applicable coding standards, naming conventions, class libraries, maintenance access, and maintenance utilities. The quality attributes specifications are achieved by the accepted design for VistA AR enhancements, CBSS and the APPS Statement.

## Reliability Specifications

CBSS shall be available 24 hours per day, 365 days per year, except during periods of scheduled maintenance. This project will not change or impact the existing VistA AR package availability.

## Scope Integration

Vista AR is an existing package of VistA. The PSE project will be making enhancements to the VistA AR package. The enhancements will include changes to the statement run process and a new interface to the CBSS system. VistA AR will send oldest bill information to CBSS. Existing architecture will be utilized for sending FPS data to CBSS, as well as receiving acknowledgements from CBSS.

CBSS is a new system with interfaces to AITC/CCPC, AITC/Lockbox, and MVI. The AITC interfaces will use existing infrastructure used by VistA today sending and receiving statement and payment information. There will be one new type of interface between CBSS and MVI which will be implemented using MLLP protocol or SOAP (as appropriate for CBSS architecture in concurrence with MVI SME’s). Please reference the below CBSS Interface Diagram for more details on the flow.

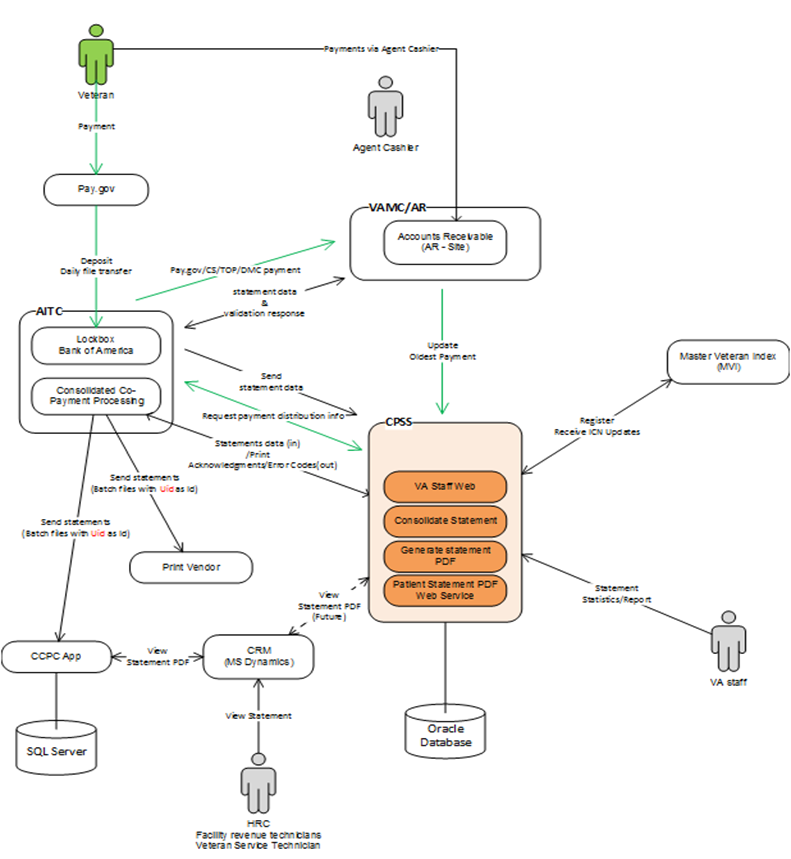


Figure ‑: CBSS Interface

Legend



## Security Specifications

The enhancement to VistA AR and development of the CBSS will include necessary standards, procedures, and technical aspects of the solution required for achieving system certification and accreditation. The design will address controls listed in Federal Information Processing Standards (FIPS) PUB 200, Minimum Security Requirements for Federal Information and Information Systems. Additional security specifications included in the design will address:

* Compliance with standards and regulatory requirements published in VA Handbook and Directive 6500: Veterans Affairs Directives > VA Handbook and Directive 6500.
* Compliance with FIPS PUB 140-2, Security Requirements for Cryptographic Modules, and for all voice and data traffic encryption: Computer Security Division > Publications > Federal Information Processing Standards > FIPS PUB 140-2.
* Additionally, due to patient safety considerations, data protection measures such as backup intervals and redundancy shall be consistent with systems categorized as critical.

## System Features

CBSS features are defined in Section 2.6 of this document.

## Usability Specifications

There are no changes to usability specifications for VistA AR enhancements. PSE shall conform to the current usability standards within the AR package.

The CBSS user interface design will be reviewed by the business owners early in design and development to ensure a high level of usability.

# Purchased Components

The CBSS system will run on the VA cloud-based environment.

CBSS hardware architecture design will be composed of Virtual Machines (VM) based and deployed on hardware at AITC data centers in a Virtual farm following VA’s Cloud First directive. The deployment will have VM servers for sFTP, Proxy server for Load Balancing, VM WebLogic Application servers for the Application Cluster, and Oracle Database servers.

The CBSS application server and Oracle Database servers will run on an RHEL Enterprise Edition platform. The RHEL version will conform to VA TRM.

**CBSS-Web Application**: will be hosted by WebLogic Application Server and Oracle Database Server (with RHEL as operating system).

**Internal System Interfaces:**

**CBSS-Web Application:** Local VAMC (AR package), AITC (Lockbox etc.).

CBSS application is in the early design phase of its lifecycle. The RSD will be signed off prior to MS1 and the SDD is ready for MS1 but will be updated throughout the development phase.

Table 3‑1 outlines the Detail VM Requirements for deploying CBSS application.

Table ‑: CBSS VM Requirements

| **S.N0** | **VM** | **Ram(GB)** | **OS Storage (GB)** | **Disk Storage (GB)** | **OS** | **CPUs** | **VM Description** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 4 | 32 for each VM  Total=32x4 | 60x4 | 80x4 | RHEL- Linux | 4x4 | WebLogic Application Server Cluster (2 clusters) to Host CBSS application |
| 2 | 2 | 64x2 | 60x2 | 700x2 | RHEL- Linux | 4x2 | Oracle Database Server Cluster to Host CBSS application Database |
| 3 | 2 | 32x2 | 60 | 500x2 | RHEL-Linux | 4x2 | Red Hat Linux (sFTP) Server. |
| 4 | 1 | 16 | 60 | 80 | RHEL- Linux | 4 | Load Balancer and Reverse Proxy |

Note: The above requirements will be further refined during SEDR process and working with AITC architects. CPU, RAM and disk space requirements will be based on performance testing results required to attain the SLA-directed throughput for number of concurrent users and transaction response time. Changes may be made to these estimates as functionality is added to the application and performance testing continues.

# Approval Signatures

REVIEW DATE:

SCRIBE:

Signed:

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Integrated Project Team (IPT) Chair Date

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

Business Sponsor Date

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

IT Program Manager Date

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

Project Manager Date

1. **Appendix** 
   1. CBSS User

The CBSS User Role must be fully defined through collaboration between OIT and the Business. The following definition was provided to OIT and the Business 12/3/2015 Requirement Elaboration Meeting.

CBSS User Role: this role shall have a global view of the generation of statements. This person is logging in and managing the process of statements. This person does not need to be technical, but will log in to make sure scheduled processes are executing correctly, reviewing batch schedule failures, and re-generating scheduled events that fail.

* Will communicate with HPC when files fail from VAMCs (not received or cannot be processed)
* Will communicate with AITC when file transmission errors occur
* Identify issues or enhancements that need to be made to the CBSS system to correct or improve processes
* Open change requests for issues and/or enhancements
* Work directly with CBSS application owner to resolve issues, or development process improvements
  1. Data Validations

**Facility Patient Statement (FPS) File**

Table A‑‑: FPS - Patient Statement ‘PS’ Record Validations

| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PS” | 2 (A) | Y | Record identifier - Patient Statement | Must be the value “PS” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| SEQ-NUM | [0001, 0002....9999] | 4 (N) | Y | 0001 to 9999 - Indicates number of message from station’s transmission | Not Null  Max Length 4  Must be numbers only |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-SEQ-NUM | [0001,0002,....9999] | 4 (N) | Y | Indicates total number of messages created for the Stations’ transmission | Not Null  Max Length 4  Must be numbers only |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| FACILITY-NUM | AR Station # | 5 (A) | Y | Submitting station number | Not Null  Max Length 5 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| FAC-PHONE-NUM | Station Phone Number | 20(A) | N | Phone number of submitting station if one different than that on the Station file is desired | Max Length 20  Must be numbers only |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-STATEMENT | # Statements | 4 (N) | Y | Total number of statements included in message | Not Null  Max Length 4  Must be numbers only |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATEMENT-VAL | 99999999999+ cents dec implied | 12 (N) | Y | Total dollar value of statements in message, after unstring conversion S9(9)V99. (sum of CURRENT-BALANCE fields) | No Null  Max Length 12 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATEMENT-DATE | MMDDYYYY | 8 (N) | Y | Statement Date to be used on Statement print date | Not Null  Max Length 8  Must be MMDDYYY format. |
| Field Delimiter | | “^” | 1 (A) | Y |  |  |
| PROCESS-DATE | MMDDYYYY | 8 (N) | Y | Processing date of statements submitted - cut-off date for transactions at the station | Not Null  Max Length 8  Must be MMDDYYY format. |
| Field Delimiter | | “^” | 1 (A) | Y |  |  |
| Record Delimiter | | “|” | 1 (A) | Y | End of Record type “PS” |  |

Table A‑‑: FPS - Patient Header ‘PH’ Record Validations

| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PH” | 2 (A) | Y | Record identifier - Patient Header (not valid without a Patient Statement record within the message) | Must be the value “PH” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PATIENT-ACCT | Account Number | 19 (A) | Y | Patient account number of statement | Not Null  Max Length 19 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PATIENT-LST-NME | Patient’s Last Name | 20 (A) | Y | Patient’s last name on statement | Not Null  Max Length 20 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PATIENT-FST-NME | Patient’s First Name | 10 (A) | Y | Patient’s first name on statement | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PATIENT-MID-NME | Patient’s Middle Name | 10 (A) | N | Patient’s middle name or initial on statement | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ADDRESS-1 | First Address Line | 40 (A) | Y | Address line 1 on statement | Not Null  Max Length 40 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ADDRESS-2 | Second Address Line | 40 (A) | N | Address line 2 on statement | Max Length 40 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ADDRESS-3 | Third Address Line | 40 (A) | N | Address line 3 on statement | Max Length 40 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| CITY | City | 40 (A) | Y | City of statement address - for foreign addresses this field will not be required | Not Null  Max Length 40 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATE | State | 2 (A) | Y/N | State of statement address - for foreign addresses this field will be ‘FX’ | Not Null  Max Length 2 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ZIP-CDE | Zip Code | 11 (N) | Y/N | ZIP code of statement address - for foreign addresses this field will not be required | Max Length 11  Must be a numeric  Not Null if state is Not “FX”;  NULL if state is “FX” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| CTRY-NME | Country NAME | 20 (A) | N | Country Name | Max Length 20 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| AMT-DUE | 999999999+ cents decimal implied | 10 (N) | Y | Amount due for statement (from AR), after unstring conversion S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PREV-BAL | 999999999+ cents decimal implied | 10 (N) | Y | Previous balance amount for statement (from AR), after unstring conv. S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-CHARGES | 999999999+ cents decimal implied | 10 (N) | Y | Total charge amount for statement , after unstring conversion S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-CREDITS | 999999999+ cents decmial implied | 10 (N) | Y | Total credit amount for statement, after unstring conversion S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| CURRENT-BALANCE | 999999999+ cents decimal implied | 10 (N) | Y | New balance amount for statement, after unstring conversion S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| SPECIAL-NOTICES | Special Notice Text | 160 (A) | N | Special notices from the station to the patient for the statement | Max Length 160 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| R-O-PARA-CDES | Rights and Obligation para. numbers | 40 (A) | Y | 20 sets of 2 digit paragraph numbers to be included on reverse of statement | Not Null  Max Length 40 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| NUM-OF-LINES | 999 | 3 (N) | Y | Number of itemized (print) lines | Not Null  Max Length 9 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| DFN-Number |  | 16(N) | Y | First 3 numbers of this field is the station number | Not Null  Max Length 16 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ICN-Number |  | 17 (A) | Y | The ICN appears as 10 digits followed by the delimiter character (“V”) followed by the 6 checksum digits. | Not Null  Max Length 17 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| AR-Address-Flag | “Y” or “N” | 1 (A) | Y | Ture/False flag, indicate the address is from AR or not. The logic is used to select address from multiple sites. | Not Null  Max Length 1  Must be the value of “Y” or “N” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| LST-BILL-PREP-DATE | MMDDYYYY | 8 (N) | Y | The Latest Prepared Date for bills in the statement | Not Null  Max Length 8  Must be MMDDYYY format. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” | 1 (A) | Y | End of Record type “PH” |  |

Table A‑‑: FPS - Patient Detail ‘PD’ Record Validations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| RECORD-TYPE | “PD” | 2 (A) | Y | Record identifier - Patient Detail (not valid without a Patient Statement record and a Patient Header within the message) | Must be the value “PD” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| DATE-POSTED | MMDDYYYY | 8 (N) | N | Date activity posted to AR system | Max Length 8  Must be MMDDYYY format. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TRANS-DESC | Transaction Description | 50 (A) | N | Transaction description | Max Length 50 |
| Field Delimiter | “^” | 1(A) | Y |  |  |
| TRANS-AMT | 999999999+ cents decimal implied | 10 (N) | N | Amount of transaction, after unstring conversion S9(7)V99 | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| REF-NO | Reference Number | 13 (A) | N | Reference number of transaction | Max Length 13 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” | 1 (A) | Y | End of record type “PD” |  |
| Message Delimiter | “~” | 1 (A) | N | End of transmitted Patient Statement message |  |

**Billing Statement Print Acknowledgement Validations**

Table A-‑: Billing Statement Print Acknowledgement Header Record Validations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| RECORD-TYPE | “PA” | 2 (A) | Y | Record identifier - Print Acknowledgment | Value must be ‘PA’ |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| SEQ-NUM | [001, 002....999] | 3 (N) | Y | 001 to 999 - sequential numbers assigned to subsequent messages. | Must be a 3-digit number |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-SEQ-NUM | [001,002 .... 999] | 3 (N) | Y | Indicates total number of Patient Acknowledge messages created for transmission to the station, this field will be blank if not the last PA in a sequence | Must be a 3-digit number |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| FACILITY-NUM | AR Station # | 5 (A) | Y | Destination station number | Must be an alphanumeric no longer than 5 characters. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-STATEMENT | # Statements | 4 (N) | Y | Total number of statements included in message | Must be a number of up to 4-digits |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATEMENT-VALUE | 9999999999999+ cents dec. implied | 14 (N) | Y | Total value of statements included in message, before string conversion S9(11)V99 | Must be alphanumeric no more than 14 characters. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATEMENT-DATE | MMDDYYYY | 8 (N) | Y | Statement Date used on Statement PR-STAT-DATE from Code 1 File | Must be MMDDYYY format. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PRINT-DATE | MMDDYYYY | 8 (N) | Y | Calendar date statements were printed | Must be MMDDYYY format. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” | 1 (A) | Y | End of record type “PA” |  |
| End Of Mailman Msg | X ‘0D’ X ‘25’ | 2 (A) | Y | End of mailman message, carriage return and line feed hex values |  |

Table A-‑: Billing Statement Print Acknowledgment Detail Record Validations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| RECORD-TYPE | “AD” | 2 (A) | Y | Record identifier - Print Acknowledgment Detail (not valid without a Print Acknowledgment, PA, within the message) | Must be the value ‘AD’. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PATIENT-ACCT | Account Number | 19 (A) | Y | Patient account number of statement printed | Must be alphanumeric no more than 19 characters. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” | 1 (A) | Y | End of record type “AD” |  |
| End Of Mailman Msg | X ‘0D’ X ‘25’ | 2 (A) | Y | End of mailman message, carriage return and line feed hex values |  |
| Message Delimiter | “~” | 1 (A) | Y | End of transmitted message “PA” |  |

**Bill Data File Validations**

Table A-‑: Bill Data File Header Record Validations

| **Field Name** | **Values** | **Length** | **Req** | **Description** | **Validation** |
| --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PU” | 2 (A) | Y | Record identifier – Payment Update | Must be the value “PU” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-NUM |  | 10 (N) | Y | Total number of the patient records - PDs | Not Null  Max Length 10 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| FACILITY-NUM | AR Station # | 5 (A) | Y | Destination station number | Not Null  Max Length 5 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PROCESS-DATE | MMDDYYYY | 8 (N) | Y | Calendar date the file is created | Not Null  Must be in MMDDYYYY format |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” | 1 (A) | Y | End of Record type “PU” |  |

Table A-‑: Bill Data File Detail Record Validations

| **Field Name** | **Values** | **Max** | **Req.** | **Description** | **Validation** |
| --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PD” | 2 (A) | Y | Record identifier – Payment Detail | Must be the value “PD” |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ICN |  | 18 (A) | Y | ICN number | Not Null Max Length 18 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ACCT-NUM | Account Number | 19 (A) | Y | Patient account number of statement from facility,  STATION+SSN+5LASTN | Not Null Max Length 19 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| SUB-TOTAL | Subtotal | 10 (N) | Y | The sub-total for the payment of the patient | Not Null |
| Field Delimiter | “^” | 1(A) | Y |  |  |
| DATE-OLDEST-BILL | MMDDYYYY | 8 (A) | Y | Date of the oldest bill for this patient in this facility | Not Null Must be in MMDDYYYY format |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “|” in VistA | 1 (A) | Y | End of record type “PD” |  |
| Message Delimiter | “~” | 1 (A) | N | End of message |  |

**VistA Patient, Debtor, and AR Transaction Consistency Checks**

Table A-‑: Consistency Check on Patient, Debtor, and AR Transactions

| **Field Name** | **Values** | **Max** | **Req.** | **Description** | **Consistency Check** | **Short Description** |
| --- | --- | --- | --- | --- | --- | --- |
| PATIENT-ACCT | Account Number | 19 (A) | Y | 9-Digit SSN of Patient | Not Null  All numbers Max Length 9 | Missing or invalid SSN. |
| PATIENT-LST-NME | Patient’s Last Name | 20 (A) | Y | Patient’s last name on statement | Not Null Max Length 20 | Missing or Invalid Last Name |
| PATIENT-FST-NME | Patient’s First Name | 10 (A) | Y | Patient’s first name on statement | Not Null Max Length 10 | Missing or Invalid First Name |
| PATIENT-MID-NME | Patient’s Middle Name | 10 (A) | N | Patient’s middle name or initial on statement | Max Length 10 | Invalid Middle Name |
| ADDRESS-1 | First Address Line | 40 (A) | Y | Address line 1 on statement | Not Null Max Length 40 | Missing or Invalid Address Line 1 |
| ADDRESS-2 | Second Address Line | 40 (A) | N | Address line 2 on statement | Max Length 40 | Invalid Address Line 2 |
| ADDRESS-3 | Third Address Line | 40 (A) | N | Address line 3 on statement | Max Length 40 | Invalid Address Line 2 |
| CITY | City | 40 (A) | Y | City of statement address - for foreign addresses this field will not be required | Not Null Max Length 40 | Missing or Invalid City |
| STATE | State | 2 (A) | Y | State of statement address - for foreign addresses this field will be ‘FX’ | Not Null Max Length 2 | Missing or Invalid State |
| ZIP-CDE | Zip Code | 11 (N) | N | ZIP code of statement address - for foreign addresses this field will not be required | Max Length 11 Must be a numeric Not Null if state is Not “FX”; NULL if state is “FX” | Missing or Invalid Zip Code |
| CTRY-NME | Country NAME | 20 (A) | N | Country Name | Max Length 11 |  |
| DFN-Number |  | 16(N) | Y | First 3 numbers of this field is the station number | Not Null Must be a numeric Max Length 11 | Missing or Invalid DFN |
| ICN-Number |  | 17 (A) | Y | The ICN appears as 10 digits followed by the delimiter character (“V”) followed by the 6 checksum digits. | Not Null Max Length 17 | Missing or Invalid ICN |
| AR-Address-Flag | “Y” or “N” | 1 (A) | Y | Ture/False flag, indicate the address is from AR or not. The logic is used to select address from multiple sites. | Not Null Max Length 1 Must be the value of “Y” or “N” | Missing or Invalid Address Flag |
| LST-BILL-PREP-DATE | MMDDYYYY | 8 (N) | Y | The Latest Prepared Date for bills in the statement | Not Null Max Length 8 Must be MMDDYYY format. | Missing or Invalid Last Bill Prep Date |
| DATE-POSTED | MMDDYYYY | 8 (N) | Y | Date activity posted to AR system | Not Null Max Length 8 Must be MMDDYYY format  (if it is not null) | Date for Transaction <TRANS #> Invalid  Invalid Date Posted |
| TRANS-AMT | 9999999999 | 10 (N) | Y | Amount of transaction. “Cents” decimal is implied Example:  $55.00 = 5500 $132.69 = 13269 | Not Null Max Length 10 | Amount in Transaction <TRANS #> Invalid  Invalid Transaction Amount |

**Annual Patient Payment Summary (APPS) File validations performed by CBSS**

Table A-‑: APPS - Patient Statement ‘PS’ Record Validations

| **Field Name** | **Values** | **Max** | **Req.** | **Description** | **Validation** | **Error Code** | **Short Description** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PS” | 2 (A) | Y | Record identifier - Patient Statement | Must be the value “PS” | PS001 | Invalid PS Record Type |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| MSG-NUM | [1,2,..9999999999] | 10 (N) | Y | 1 to 9999999999 - Indicates number of message from station’s transmission | Not Null Max Length 10 Must be numbers only Number cannot be larger than value in TOT-MSG-NUM | PS002 | Incomplete Site Data - missing messages |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| TOT-MSG-NUM | [1,2,..9999999999] | 10 (N) | Y | Indicates total number of messages created for the Stations’ transmission | Not Null Max Length 10 Must be numbers only | PS003 | Missing or invalid TOT-MSG-NUM Field |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| FACILITY-NUM | AR Station # | 5 (A) | Y | Submitting station number | Not Null Max Length 5 Must be a valid Station Number in the Station Table | PS004 | Invalid Station |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| FAC-PHONE-NUM | Station Phone Number | 20(A) | N | Phone number of submitting station if one different than that on the Station file is desired | Max Length 20 Must be numbers only | PS005 | Invalid Facility Phone Number |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| TOT-PATIENT | [1,2,..9999] | 4 (N) | Y | Total number of patients included in message Example: 1 | Not Null Max Length 4 Must be numbers only Compare this number to the count of PH records, these two numbers must be equal. | PS006 | Invalid number of PH for PS Total Patients. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| STATEMENT-YEAR | YYYY | 4 (N) | Y | Statement Year to be used on Statement print date | Not Null Max Length 4 Must be numbers only Must be previous calendar year. | PS007 | Missing or Invalid Statement Year |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| PROCESS-DATE | MMDDYYYY | 8 (N) | Y | Processing date of statements submitted - cut-off date for transactions at the station | Not Null Max Length 8 Must be MMDDYYY format. | PS008 | Missing or Invalid Process Date |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| Record Delimiter | “}” | 1 (A) | Y | End of Record type “PS” | Must be the value “}” | PS009 | Invalid End of PS Record Type |

Table A-‑: APPS - Patient Header ‘PH’ Record Validations

| **Field Name** | **Values** | **Max** | **Req.** | **Description** | **Validation** | **Error Code** | **Short Description** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PH” | 2 (A) | Y | Record identifier - Patient Header (not valid without a Patient Statement record within the message) | Must be the value “PH” | PH001 | Invalid PH Record Type |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| PATIENT-ACCT | Account Number | 19 (A) | Y | Patient account number of statement: <3-Digit Station Number> <9-Digit SSN> <First 5 Characters of Last Name> | Not Null Max Length 19 | PH002 | Missing or Invalid Account Number |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| PATIENT-LST-NME | Patient’s Last Name | 20 (A) | Y | Patient’s last name on statement | Not Null Max Length 20 | PH003 | Missing or Invalid Last Name |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| PATIENT-FST-NME | Patient’s First Name | 10 (A) | Y | Patient’s first name on statement | Not Null Max Length 10 | PH004 | Missing or Invalid First Name |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| PATIENT-MID-NME | Patient’s Middle Name | 10 (A) | N | Patient’s middle name or initial on statement | Max Length 10 | PH005 | Invalid Middle Name |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| ADDRESS-1 | First Address Line | 40 (A) | Y | Address line 1 on statement | Not Null Max Length 40 | PH006 | Missing or Invalid Address Line 1 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| ADDRESS-2 | Second Address Line | 40 (A) | N | Address line 2 on statement | Max Length 40 | PH007 | Invalid Address Line 2 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| ADDRESS-3 | Third Address Line | 40 (A) | N | Address line 3 on statement | Max Length 40 | PH008 | Invalid Address Line 2 |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| CITY | City | 40 (A) | Y | City of statement address - for foreign addresses this field will not be required | Not Null Max Length 40 | PH009 | Missing or Invalid City |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| STATE | State | 2 (A) | Y | State of statement address - for foreign addresses this field will be ‘FX’ | Not Null Max Length 2 | PH010 | Missing or Invalid State |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| ZIP-CDE | Zip Code | 11 (N) | N | ZIP code of statement address - for foreign addresses this field will not be required | Max Length 11 Must be a numeric Not Null is state is Not “FX”; NULL if state is “FX” | PH011 | Missing or Invalid Zip Code |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| CTRY-NME | Country NAME | 20 (A) | N | Country Name | Max Length 11 |  |  |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| TOT-AMT-RCV | 9999999999 | 10 (N) | Y | Total payment amount received in the specified year. “Cents” decimal is implied Example:  $55.00 = 5500 $132.69 = 13269 | Not Null Max Length 11 Must be numbers only Compare this number to the sum of PD TRANS-AMT records , these two numbers must be equal. | PH012 | Total statement amount does not match amount received. |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| DFN-Number |  | 16(N) | Y | First 3 numbers of this field is the station number | Not Null Must be a numeric Max Length 11 | PH013 | Missing or Invalid DFN |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| ICN-Number |  | 17 (A) | Y | The ICN appears as 10 digits followed by the delimiter character (“V”) followed by the 6 checksum digits. | Not Null Max Length 17 | PH014 | Missing or Invalid ICN |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| AR-Address-Flag | “Y” or “N” | 1 (A) | Y | Ture/False flag, indicate the address is from AR or not. The logic is used to select address from multiple sites. | Not Null Max Length 1 Must be the value of “Y” or “N” | PH015 | Missing or Invalid Address Flag |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| LST-BILL-PREP-DATE | MMDDYYYY | 8 (N) | Y | The Latest Prepared Date for bills in the statement | Not Null Max Length 8 Must be MMDDYYY format. | PH016 | Missing or Invalid Last Bill Prep Date |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| NUM-OF-PD | [1,2,..9999] | 4 (N) | Y | Number of payment detail transactions (i.e., PD records) for the Veteran. | Not Null Max Length 4 Numeric Compare this number to the count of PD records, these two numbers must be equal. | PH017 | Count of PD records does not match count in PH |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| Record Delimiter | “}” | 1 (A) | Y | End of Record type “PH” | Must be the value “}” | PS009 | Invalid End of PH Record Type |

Table A-‑: APPS - Patient Detail ‘PD’ Record Validations

| **Field Name** | **Values** | **Max** | **Req.** | **Description** | **Validation** | **Error Code** | **Short Description** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | “PD” | 2 (A) | Y | Record identifier - Patient Detail (not valid without a Patient Statement record and a Patient Header within the message) | Must be the value “PD” | PD001 | Missing or Invalid Record Type |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| DATE-POSTED | MMDDYYYY | 8 (N) | Y | Date activity posted to AR system | Not Null Max Length 8 Must be MMDDYYY format  (if it is not null) | PD002 | Invalid Date Posted |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| TRANS-AMT | 9999999999 | 10 (N) | Y | Amount of transaction. “Cents” decimal is implied Example:  $55.00 = 5500 $132.69 = 13269 | Not Null Max Length 10 | PD003 | Invalid Transaction Amount |
| Field Delimiter | “^” | 1 (A) | Y |  |  |  |  |
| Record Delimiter | “}” | 1 (A) | Y | End of record type “PD” | Must be the value “}” | PD004 | Invalid End of PD Record Type |
| Message Delimiter | “~” | 1 (A) | N | End of transmitted Patient Statement message | Must be the value “~” | PD005 | Invalid End of Message |

**APPS Print Acknowledgement**

Table A-‑: APPS Print Acknowledgment Message Header Record

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Name** | **Values** | **Max Length** | **Req** | **Description** | **Validations** |
| RECORD-TYPE | “PA” | 2 (A) | Y | Record identifier - Print Acknowledgment | Not null  Must be the value ‘PA’ |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| SEQ-NUM | [001, 002....999] | 3 (N) | Y | 001 to 999 - sequential numbers assigned to subsequent messages; | Not null  Max length 3  Must be numeric |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-SEQ-NUM | [001,002 .... 999] | 3 (N) | Y | Indicates total number of Patient Acknowledge messages created for transmission to the station, this field will be blank if not the last PA in a sequence | Not null  Max length 3  Must be numeric |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| TOT-STATEMENT | # Statements | 4 (N) | Y | Total number of statements included in message | Not null  Max length 4  Must be numeric |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| STATEMENT-YEAR | YYYY | 8 (N) | Y | Statement Year used on Statement | Must be a valid 4 digit year |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| PRINT-DATE | MMDDYYYY | 8 (N) | Y | Calendar date statements were printed | Must be a valid date format MMDDYYY |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “}” | 1 (A) | Y | End of record type “PA” | Not null.  Must be the value ‘}’ |

Table ‑: APPS Print Acknowledgment Detail Record

| **Field Name** | **Values** | **Max Length** | **Req** | **Description** | **Validations** |
| --- | --- | --- | --- | --- | --- |
| RECORD-TYPE | **“AD”** | 2 (A) | Y | Record identifier - Print Acknowledgment Detail (not valid without a Print Acknowledgment, PA, within the message) | Not null  Must be the value ‘AD’ |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| ~~PATIENT-ACCT~~ | ~~Account Number~~ | 19 (A) | ~~Y~~ | ~~Patient account number of statement printed~~ | TBD if this field is needed. |
| ~~PATIENT-ICN~~  CBSS-ACNT-Number | ~~ICN Number~~ | ~~17 (A)~~ | ~~Y~~ | ~~Patient unique identifier~~  CBSS patient account number | TBD |
| Field Delimiter | “^” | 1 (A) | Y |  |  |
| Record Delimiter | “}” | 1 (A) | Y | End of record type “AD” | Not null.  Must be the value ‘}’ |
| Message Delimiter | “~” | 1 (A) | Y | End of transmitted message “PA” | Not null.  Must be the value ‘~’ |

1. http://www.ehealth.va.gov/508/resources\_508.html [↑](#footnote-ref-1)