Software Requirements Specification

For

ACH Case Tracking Phase I

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1.0.1

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Revision History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Description** |
| 1.0.0 | 2/19/2016 | Deft Developers | Initial draft |
| 1.0.1 | 2/20/2016 | Steven Evans | Filled in gaps and edited. |
|  |  |  |  |

# Introduction

## Overview

This document defines the requirement for the ACH Case Tracking system that is being developed for Commerce Bank. The purpose of this document is to represent the system requirements in a readable way so that clients and stakeholders can understand and verify them for correctness, but with enough detail that developers can design and implement a software system from them.This document doesn’t address *project* issues such as schedule, cost, development methods, development phases, deliverables and testing procedures. Those are addressed in a separate project document and quality assurance test plan.

The purpose of ACH Case Tracking Phase I will be to enhance visibility into various types of Government Reclamation requests received. This will allow the ACH Department to limit their risk of missing a request, resulting in a loss to the bank. This will also allow greater efficiency for the DNE process to be able to import the DNEs instead of logging each one individually in excel. The team would use this functionality to keep track of open requests, make appropriate comments in relation to action taken on requests, and be able to research past requests easily. This phase should also include reporting abilities, specifically month end type reporting, to allow us (at a minimum) to see how many cases were worked in a given month. These counts should be able to be broken down by sub-type. In order to ensure data integrity and provide traceability, the system will keep a detailed audit trail of user action on cases.

## Goals and Objectives

The main goals of the ACH Cash Tracking Phase I are:

1. Allow qualified users to create cases by manually entering the information on web forms or import data from NACHA files.
2. Provide audit log to keep track of the actions taken by different users.
3. Allow qualified users to edit cases, close cases, and re-open cases.
4. Track SLA deadlines of cases and open case time.
5. Use case statistics to generate month end reporting.
6. Allow qualified users to research cases and update them accordingly.

## Scope

The product will allow ACH Ops and call-center users to manually create cases or have them auto-generated from data files. All users can search through existing cases and view information. ACH Ops will have the ability to update the status of existing cases as well as close cases. Admin users have the ability to configure and adjust SLA for cases. The product will not provide any user authentication as this will be left to Commerce Bank to incorporate.

## Definitions

***ACH Ops -*** *ACH Operators who have the permission to create cases, edit cases, and view cases. These users are the primary case workers.*

***Call Center -*** *Answer phone calls and then create cases in the system. People from Call Center also have permission to view cases.*

***Management******-*** *Refers to supervisors of employees working on cases. Management will be able to view cases as well as the audit trail*

***Admin -*** *Refers to employees which have complete access to cases, the ability to assign users to user groups and the ability to configure and adjust Service Level Agreements.*

***Government Reclamations -*** *A type of case.*

***DNE (Death notification entry) -*** *A subtype of Government Reclamations. Used for government municipalities looking to recover funds dispersed to parties that have deceased.*

***DCN (Document Control Number?) -*** *A type of case.*

***CRF (Credit Research Foundation?) -*** *A type of case.*

***POA (Proof of Authorization) -*** *A type of case.*

***Reversals/Deletions -*** *A type of case.*

***Returns -*** *A type of case.*

***Unresolved/Dishonored Returns -*** *A type of case.*

***DDA (Direct Deposit Account) -*** *Bank account which accepts ACH payments directly as opposed to a payment going through a thrid party (e.g. writing a check).*

***SLA (Service Level Agreement)******-***  *Provides a way to ensure cases are being handled in a timely manner by defining the number of business days that may pass before the case must be updated (e.g. A new note is added). The SLA is reset each time a case is updated. SLAs are set and changed by the Admin.*

***NACHA (National Automated Clearing House Association) -*** *The organization which sets the format for the files Commerce Bank receives containing DNE case information. These files will be referred to throughout this text as NACHA files.*

***Shall –*** *Adverb used to indicate importance; indicates the requirement is mandatory. “Must” and “will” are synonyms for “shall”.*

***Should –*** *Adverb used to indicate importance; indicates the requirement is desired but*

*not mandatory.*

***May –*** *Adverb used to indicate an option. For example, “The system may be taken offline*

*or up to one hour every evening for maintenance.” Not used to express a requirement,*

*but rather to specifically allow an option.*

***Controls –*** *The individual elements of a user interface such as buttons and check boxes.*

***Cost -*** *Estimation used in determining the priority of a feature. Measured by the amount of hours necessary to develop a feature.*

## Document Conventions

Portions of this document that are incomplete will be marked with TBD. Each TBD item will have an owner and estimated date for resolving the issue.

## Assumptions

It is assumed that users have certain roles assigned to them prior to their initial use of the product.

# General Design Constraints

## Product Environment

The ACH Case Tracking Phase I will interact with Commerce Bank’s existing authentication system. The system will be hosted on a dedicated Commerce Bank server and be accessed only from the local network.

## User Characteristics

There will be four user groups, each with their own set of allowable actions:

**ACH Operators**: Create, edit, view and close cases, and view audit log .

**Call Center**: Create and view cases.

**Manager**: View cases and audit log.

**Admin**: Create, edit, view and close cases, adjust SLA deadlines, view audit log, and create and edit user groups.

## Mandated Constraints

Product must be accessible over local network using Internet Explorer 9 and up. Only open source, non-hosted libraries/frameworks are to be used.

## Potential System Evolution

ACH Case Tracking Phase I may be updated in the following ways:

1. More constraints may be added during the process of editing cases by different users concurrently.
2. The feature to allow ACH Operators to import NACHA files from a remote drive.
3. The ability to detect duplicate cases when creating new cases.
4. The ability of users to request changes to be made my other users.

# Nonfunctional Requirements

## Operational Requirements

The application must allow different users to view and modify its data concurrently, while preserving the integrity of the data.

## Performance Requirements

Memory requirements will be nominal because the system will hold only a relatively small (order of 100) subset of records from the database in memory at any time. Queries on the database should take no more than a few seconds in the worst case (searching every record in a large table) and less than 1 second in the average case. Processing time for NACHA files will depend on the number of entries they contain, but on average should take no longer than a few seconds. The user must be able to perform unrelated tasks within the system while the file is being processed.

## Security Requirements

Commerce Bank will be responsible for authorizing users prior to accessing the system.

Sensitive information such as social security numbers will be stored in the database in encrypted format to prevent malicious users (external or internal) from obtaining them.

## Safety Requirements

There are no safety requirements at this time.

## Legal Requirements

There are no safety requirements at this time.

## Other Quality Attributes

**Usability -** The full functionality of the product can be used without requiring the end-user to consult written documentation. It shall take the user 3 clicks or less to get from one use case to any other use case. For example, if an ACH Ops finishes editing a case and decides to import a NACHA file, it must take a maximum of 3 clicks to get there.

**Traceability** – In order to ensure the integrity of case data, all modifications to cases must be recorded and saved for future reference. These entries will contain, at a minimum, ***date modification occurred, type of modification, the user who performed the modification, the before and after values, and a case identifier***.

## Documentation and Training

A user guide will be provided to help new users navigate the system and use it effectively. However, our intention is to provide a user interface which is simple and self-explanatory so that users can use it effectively without referring to documentation. System documentation will be delivered with the product and instruct how to install and setup the system so that it is accessible and ready for end users. Structured training will not be offered but a short presentation will be given showing how to install and use the product. Also, Deft Developers will be available through email correspondence to answer any questions that might arise after the product is delivered.

## External Interface

### User Interface

There are four distinct user types and while there is overlap between the different user types (e.g. all users can view all cases), each has their own focus when using the system. Because of these differing goals between user types, each type will be presented with a slightly different user interface to match their focus.

**ACH Ops** -- Focus will be viewing assigned cases, viewing cases approaching or past their SLA deadline and creating new cases (manually and by NACHA files).

**Call Center** -- Focus will be creating new cases (manually only).

**Manager** -- Focus will be viewing the audit history.

**Administrator** -- Focus will be configuring SLAs and assigning user groups.

### Software Interface

# System Features

## Feature: Manual Case Creation

### Description and Priority

ACH Ops and Call Center employees receive requests from multiple sources (e.g. phone, email, fax, etc.) and must create cases based on these requests in order to track their progress and ensure they are handled in a timely manner. This is an essential function of the product.

Cost: Medium/High

Risk: Low

Value: High

### Use Case: *Manual Case Creation*

|  |
| --- |
| **Title:** Manual Case Creation |
| **Description:** Qualified users need the ability to create a new case by manually entering available information. |
| **Actors:** ACH Ops / Call-Center |
| **Trigger:** Actor obtains case information by phone, fax, email, etc. |
| **Basic Flow:**  1. Actor selects option to enter new case information.  2. System presents choices for different case types.  3. Actor selects the appropriate case type for the information they have.  4. System presents actor with empty fields corresponding to case type.  5. Actor fills in as many fields as they wish and submits the form when finished.  6. System saves the case to the database and notifies actor that the save  completed successfully. |
| **Extensions:**  5a. Actor does not fill in any fields before submitting the case.   1. System alerts actor that they are attempting to save a case with no information entered and gives actor option to cancel or continue.    1. Actor selects to continue.       1. System saves a new case with minimal auto-generated data (e.g. date stamp, case id, etc.).    2. Actor selects to cancel their submission.       1. System aborts new case and returns actor to the main view.   5b. The system encounters an error before submitting a case.   1. The data entered is lost and the actor must create a new case.   6a. The system encounters an error while saving the case data.   1. The system detects the error and presents the actor with an error message specifying what caused the error and possible solutions. |

### Additional Requirements

## Feature: Edit Existing Case

### Description and Priority

ACH Ops and Call Center employees receive requests from multiple sources (e.g. phone, email, fax, etc.) and must create cases based on these requests in order to track their progress and ensure they are handled in a timely manner.

Cost: High

Risk: Low

Value: High

### Use Case: *Edit Existing Case*

|  |
| --- |
| Title: Edit Existing Case |
| **Actors:** ACH Op |
| **Trigger:** New information about a case has become available or current information has been changed. |
| **Basic Flow:**  **1.** ACH Op searches for the case that needs to be updated by typing in a keyword that will match one or more fields from the case.  **2.** System responds with a subset of cases with values which match the keyword.  **3.**  ACH Op selects the correct case to edit.  **4.** System displays all case fields as editable.  **5.** ACH Op makes necessary changes and submits changes.  **6.** System updates the case by saving changes to the database.  **7.**  System notifies the ACH Op that the changes were saved successfully. |
| **Extensions:**  **3a.** The selected case has not been assigned to an ACH Op.  **1.** The system prompts the ACH Op to assign themselves to the case before they  will be allowed to edit the case.  **3b.** The selected case is already assigned to another ACH Op.  **1.** The system alerts the ACH Op that the case is already assigned to another ACH  Op and editing is only allowed by that ACH Op.  **7a.** The system encounters an error while saving the case data.  **1.**  The system detects the error and presents actor with an error message  specifying what caused the error and possible solutions. |

### Additional Requirements

If user fails to save their file then the system encounters an error before submitting a case.

The data entered is lost and the actor must create a new case. And the system detects the error and presents the actor with an error message specifying what caused the error and possible solutions.

## Feature: Import NACHA File

### Description and Priority

NACHA files containing information to create many DNE cases are delivered to Commerce Bank and hand processed by ACH Ops. To increase the efficiency of creating cases, ACH Ops should have the ability to select a NACHA file and have the system automatically generate cases based on the information contained within the file.

Cost: Medium

Risk: Low

Value: High

### Use Case: *Import NACHA File*

|  |
| --- |
| **Title:** Import NACHA File |
| **Actor:** ACH Op |
| **Trigger:** One or more NACHA files are received and ready to be processed by an ACH Operator. |
| **Basic Flow:**   1. ACH Op selects to import a NACHA file and auto-generate cases. 2. System allows ACH Op to navigate the file system to the location of stored NACHA files. 3. ACH Op selects the NACHA file to be imported. 4. System parses the specified NACHA files and creates and saves new cases from the input. 5. ACH Op is able to perform unrelated actions while system generates cases. 6. System presents the newly created cases to ACH Op for editing. 7. ACH Op edits or adds necessary information and submits the cases. 8. System saves the cases in the database. 9. System notifies ACH Op that the cases were updated successfully. |
| **Extensions:**  4a. System encounters an error while processing NACHA file.  1. System detects the error, halts processing and presents ACH Op with an error  message specifying the cause of error and possible solutions.  9a. System encounters an error while saving case data.   1. System detects the error and presents ACH Op with an error message specifying the cause of error and possible solutions. |

### Additional Requirements

If the system encounters an error before the cases can be submitted, the data entered thus far will be lost and the file must be imported again to create the cases. Functionality to recover from processing errors would be a valuable enhancement once basic functionality is finished.

## Feature: Working a Case

### Description and Priority

Cost:

Risk:

Value:

### Use Case: *Working a Case*

|  |
| --- |
| **Title:** Working a Case |
| **Actors:** ACH Op |
| **Trigger:** A case has been created but is not yet assigned. |
| **Basic Flow:**  1. System begins tracking case SLA as soon as it is created.  2. ACH Op logs on to system and sees cases they are assigned to.  3. System alerts ACH Op if any case SLAs expire today.  4. ACH Op selects a case to assign themselves to a new case.  5. System modifies the database to give case SLA a new value and assign ACH Op  to the case.  6. System updates list of cases assigned to ACH Op to include the selected case.  7. ACH Op logs off System to research the case and returns before the SLA  deadline has been reached.  8. ACH Op selects to edit the case from the list of assigned cases.  9. System presents ACH Op with all available fields for the case as editable.  10. ACH Op adds a new note and submits the case.  11. System saves the case to the database and resets the SLA deadline.  12. System notifies ACH Op that the case was saved successfully. |
| **Extensions:**  4a. The case is type *Government Reclamations* and subtype is *Treasury*  *Referral or Treasury Refund.*  1. System modifies the database to assign ACH Op to the case but SLA  remains the same.  10a. ACH Op edits a case field other than the notes field.  1. System saves the case to the database and resets the SLA deadline.  2. System notifies ACH Op that the case was saved successfully.  10b. ACH Op does not edit the case in any way prior to the SLA deadline.  1. System alerts ACH Op that an SLA has expired and that the case needs to  be reviewed immediately.  11a. System encounters an error while saving case data.  1. System detects the error and presents ACH Op with an error message  specifying the cause of error and possible solutions. |

### Additional Requirements

## Feature: Searching Cases

### Description and Priority

Cost: Medium

Risk: Low

Value: High

### Use Case: *Searching Cases*

|  |
| --- |
| **Title:** Searching Cases |
| **Actors:** ACH Op / Manager / Call Center / Admin |
| **Trigger:** Details of an existing case (open or closed) need to be reviewed. |
| **Basic Flow:**  1. Actor selects which case field(s) they would like to search.  2. Actor types partial or complete information regarding an existing case.  3. System scans specified field(s) of all cases for a partial or compete match.  4. System displays matching cases to actor, sorted by field(s) searched, with option  to export in Excel format.  5. Actor selects correct result.  6. System displays all fields for that case as read only with option to edit. |
| **Extensions:**  4a. System is unable to find any matching cases.  1. System notifies actor that no cases match the search criteria given.  4b. Actor chooses to export results in Excel format.  1. System converts results to CSV file.  2. System opens CSV file for actor to review and save.  6a. Case is closed.  1. System alerts actor that case is closed and gives option to reopen the case. |

### Additional Requirements

## Feature: Generate Report

### Description and Priority

Cost: High

Risk: Medium

Value: High

### Use Case: *Generate Report*

|  |
| --- |
| **Title:** Generate Report |
| **Actors:** ACH Op |
| **Trigger:** Month-end reporting is being done and custom case statistics are needed. |
| **Basic Flow:** |
| **Extensions:** |

### Additional Requirements

## Feature: Close/Reopen Case

### Description and Priority

Cost: Medium

Risk: High

Value: High

### Use Case: *Close/Reopen Case*

|  |
| --- |
| **Title:** Close/Reopen Case |
| **Actors:** ACH Op |
| **Trigger:** A case has been resolved and needs to be closed. |
| **Basic Flow:** |
| **Extensions:** |

### Additional Requirements

## Feature: Main View

### Description and Priority

Cost: Medium

Risk: Low

Value: High

### Use Case: *Main View*

|  |
| --- |
| **Title:** |
| **Actors:** |
| **Trigger:** |
| **Basic Flow:** |
| **Extensions:** |

### Additional Requirements

## Feature:

### Description and Priority

### Use Case:

### Additional Requirements