

EIT

New Financing System

**PR207857**

May 2017 Release

EIP to OFSLL Migration

EIP Functional Specification

Document Rev. 0.1

Last Update: 12/20/16

This document contains proprietary information of T-Mobile. No use or disclosure of the information contained herein is permitted without the prior written consent of T-Mobile.

Document History

NOTE: This document is located on the network in the

<http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/PL2/Forms/AllItems.aspx?RootFolder=%2fsites%2fpp%2f2013%2fPR207857%2fPL2%2f04%2dDesign%2f05%5fData%5fConversion&FolderCTID=&View=%7bC7E05E60%2dF3C9%2d4B65%2dADF0%2dFFF4EC845382%7d>

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | Date of Change | Person | Notes, Comments, Reasons |
| 0.1 | 12/20/16 | Ethelind McAloon | Draft Version |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Document Review & Approvals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Approvers & Reviewers | | | | |
| **Name** | **Project Role** | **Department** | **Approver/Reviewer** | **Approval** |
| Eric Dobbs |  | TMO | Approver |  |
| Peter Samson | Lead Architect | TMO | Approver |  |
|  | Lead SA | TMO | Approver |  |
| Lakshmi Kannan | Lead EIP developer | TMO | Approver |  |
| Joe Blaszcak/Chris Li | Architects | TMO | Reviewer |  |
| Shivkumar Iyer | E2E Test Lead | TMO | Approver |  |
| Tom Grant | Migration Architects | TMO | Reviewer/Approver? |  |
| Kamlesh Chhugani | Billing Migration SA | TMO | Reviewer |  |
| Brandt Hambrick | Migration | TMO | Reviewer |  |
|  | Customer Delivery | TMO | Approver |  |
|  | TDL | TMO | Approver |  |
| Laura Haseleu | Finance Accounting Manager | TMO | Approver |  |
| James Weber | Sr. Analytics Manager | TMO | Approver |  |
|  | TDFADs SA | TMO | Approver |  |
|  | EDW Architect | TMO | Approver |  |
| Alan Abrahams? | Sr. Analyst (Security) | TMO | Reviewer |  |
| Mary Clemons? | BI Functional Analyst | TMO | Reviewer |  |
| Sai Potharaj | SAP FI BSA | TMO | Reviewer |  |
| Shirpad Rege | SAP OTC FA/SAP PI | TMO | Reviewer |  |
|  | TDFADS Architect | TMO | Reviewer |  |
| Nabirasool Shaik | SAP BW | TMO | Reviewer |  |
| Fiona Hwang | Manager, Business Applications Analysis, Finance | TMO | Reviewer |  |
| Anna Possek | Billing Architect | TMO | Reviewer |  |
| Rachna Sharma | Billing SA | TMO | Reviewer |  |

Table of Contents

[1. Overview 5](#_Toc470824715)

[1.1 Background 5](#_Toc470824716)

[1.2 Project Goal 5](#_Toc470824717)

[1.3 Document Objective 6](#_Toc470824718)

[1.4 Related Documentation 6](#_Toc470824719)

[1.5 Assumptions 6](#_Toc470824720)

[1.6 Issues 9](#_Toc470824721)

[1.7 Risks 9](#_Toc470824722)

[1.8 Dependencies 10](#_Toc470824723)

[2 Current Functional Context and Interfaces 10](#_Toc470824724)

[2.1 Scope 11](#_Toc470824725)

[2.1.1 In-Scope 11](#_Toc470824726)

[2.1.2 Out-of-Scope 11](#_Toc470824727)

[2.1.3 Migration Strategy 12](#_Toc470824728)

[3 Business Requirement Mapping 13](#_Toc470824729)

[3.1 Major Design Decisions 14](#_Toc470824730)

[4 Summary of Functional Specifications 20](#_Toc470824731)

[5 Functional Requirements Details 20](#_Toc470824732)

[5.1 Pre-Migration 20](#_Toc470824733)

[5.1.1 Data Cleansing 20](#_Toc470824734)

[5.2 Migration Requirements 23](#_Toc470824735)

[5.2.1 Automated Migration Process 23](#_Toc470824736)

[5.2.2 Migration Selection Process 24](#_Toc470824737)

[5.2.3 Extraction 27](#_Toc470824738)

[5.2.4 Lock Loan 28](#_Toc470824739)

[5.2.5 Un-Lock Loan 30](#_Toc470824740)

[5.2.6 Migration completion 32](#_Toc470824741)

[5.2.7 EIP Reporting 34](#_Toc470824742)

[5.3 Non-Functional Requirements 35](#_Toc470824743)

[6 Appendix 36](#_Toc470824744)

[7 Glossary 37](#_Toc470824745)

[8 Open Issues 38](#_Toc470824746)

# Overview

## Background

T-Mobile has emerged as an innovative leader in making devices affordable to customers through handset financing. With years of experience in this space starting with EIP4 through the Uncarrier launches, the accounts receivable financed amount has grown to $3B. These volumes place T-Mobile in the top 11 finance companies in the country (Monitor 100). There are operational, balance sheet and regulatory risks directly impacted by the financing activities and must be addressed.

## Project Goal

Project will identify and implement a solution to replace the existing EIP infrastructure and will convert existing customers into the new platform. The product offering will be broad enough to support new functionality such as leasing, loans with interest & securitization.

* The May MVP of this project will focus on loans
* Leases and Rushmore for NFS will follow in subsequent phases
* Bulk rolling conversion of loan data will be prioritized over lease data
  + Non B2B loans will be converted first
  + Non B2B leases will be converted next
  + Followed by B2B loans and leases
* Existing EIP solution will be replaced

The migration will occur by product type, account type/sub type, bill cycle, account status, etc. Initial thought is to start by migrating employees.

The EIP migration effort shall include the following:

* Support EIP to OFSLL data mapping exercises
* Create an automated process to lock and unlock the loans in EIP
* Implementation of new migration related statuses
* Prevention of EIP updates during migration
* Support closing the migrated EIP plans
  + Adjusting the EIP balance upon successful migration to OFSLL
  + Updating EIP with the closed for migration plan status
  + Rollback loans that are selected to be migrated but are not able to reach OFSLL due migration rejection
* Support read only capability for migrated plans/devices
* Coordinate Migration Strategy/volume projections to ensure throughput is consistent across platforms.

## Document Objective

This Functional Specification Document (FSD) is intended to define all functional requirements related to the EIP to Oracle Financial Loan and Lease System (OFSLL) migration scope. This document does not cover implementation or design of the system. The EIP IA/Tech Spec will cover the design specifications.

## Related Documentation

| Document | Link |
| --- | --- |
| **Requirements – Raid Log** | <http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/Lists/RAID%20Log/Open.aspx> |
| **TMO NFS HLSD v2.3** | <http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/PL2/Forms/AllItems.aspx?RootFolder=%2fsites%2fpp%2f2013%2fPR207857%2fPL2%2f04%2dDesign%2f01%5fHLSD&FolderCTID=&View=%7bC7E05E60%2dF3C9%2d4B65%2dADF0%2dFFF4EC845382%7d> |
| **Data Conversion Strategy** | <http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/PL2/Forms/AllItems.aspx?RootFolder=%2fsites%2fpp%2f2013%2fPR207857%2fPL2%2f04%2dDesign%2f05%5fData%5fConversion&FolderCTID=&View=%7bC7E05E60%2dF3C9%2d4B65%2dADF0%2dFFF4EC845382%7d>  <http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/PL2/04-Design/05_Data_Conversion/NFS%20Conversion%20Strategy%20Draft%20v.4%2011-30-2016.pptx> |
| **Data Mapping Worksheet** | <http://projects.internal.t-mobile.com/sites/pp/2013/PR207857/PL2/Forms/AllItems.aspx?RootFolder=%2fsites%2fpp%2f2013%2fPR207857%2fPL2%2f04%2dDesign%2f05%5fData%5fConversion%2fData%20Mapping&FolderCTID=&View=%7bC7E05E60%2dF3C9%2d4B65%2dADF0%2dFFF4EC845382%7d> |

## Assumptions

This functional design is based on the following assumptions:

|  |  |
| --- | --- |
| No | Assumptions. |
|  | Data Conversion Tool (Bulk Load approach) retrieves the EIP data by applying filter and validation (i.e. only data with no pending transactions ready for migration), and post them as events to digital event framework, Loan and OFSLL proxy microservice will subscribe these events and update data grid and OFSLL. |
|  | The Data conversion teamTMO CONVERSION TEAM will be running the selection/prioritization criteria for loan migration |
|  | EIP will support TMO conversion team for migrating data, however, EIP will not be writing the scripts to query data out of EIP, but EIP team will be writing the process for lock, unlock and close loans according with the migration stage. |
|  | The Data conversion team TMO CONVERSION TEAM will be handling the extraction, transformation, and loading of EIP data into OFSLL. The extraction will be done based on the loan that locked by the EIP process. |
|  | EIP will not be performing any error handling of extracted data. What do you mean here? |
|  | It is estimated that T-Mobile will be migrating around 25 million active loans into OFSLL. |
|  | The plan to migrate batch of accounts, about 2 to 3 million. Min – 50k. Max – 7 million. The current expectation is that a bulk migration batch will be run each week. The exact number can be finalized during mock runs in the actual environment. |
|  | Historical EIP transaction data will remain in EIP. (loan date prior 9/1/2013, loans that are completed, loans that are below $1 (one dollar balance) |
|  | Business has decided not to migrate any financial transaction history, ie past balance payments, scheduled payments, |
|  | EIP will need to be operational until the migration is complete.  EIP will be in read only mode for 7 years, also need to say that OFSLL will be ready and running before migration starts. |
|  | The Data Grid will hold the bridging indicator that is needed by the new API’s. Datagrid also need to be update according with loans in migration (hold, restore and release) |
|  | The Data Grid will be pre-populated with non-B2B active loans to be migrated.  EIP will publish the needed loans using the same event framework. EIP will provide a batch job/offline process to do the one time load process. |
|  | Loan balances will be migrated from EIP as is, there will be no separate effort to be payment aware as part of the migration to true up the real balance.   * The EIP loan balance for the migration will be taken from EIP, unpaid EIP charges in Samson will not be factored in. * EIP will not consider the charge payed by the customer in Samson |
|  | Deferred interest amounts will be migrated from EIP as is. Adjustments will be made in OFSLL as needed to correct differences based on EIP’s billing cycle vs OFSLL’s calendar month method of computation |
|  | Any Loans originated in EIP will have sufficient time to have any related delay-pay (DPAY) events normally happen in EIP, reduce the stated balance in EIP accordingly, and not impact the transfer balance:   * When OFSLL goes live, new Loans will originate in OFSLL and not EIP.   There will be at least 14 days between when OFSLL goes live and when the first data conversion begins from EIP to OFSLL. |
|  | There won’t be situations where the conversion team needs to exclude plans that haven’t been cancelled yet (ban cancelled, but plan hasn’t been cancelled, yet and charges have not accelerated yet), since cancelled bans will be part of the exclusion criteria. |
|  | Any charge or credit that has been approved, but has not impacted the AR Balance, must impact prior to migrating account. This should be taken care of by the exclusion criteria. |
|  | All Webbank loans will be migrated to the Agency model by the time of migration |
|  | For converted data from EIP, the primary key in OFSLL (ACCOUNT.ACC\_NBR) will be mapped to the EIP\_EQUIPMENT.ID |
|  | There is no need to update EIP with OFSLL loan information |
|  | Reconciliation/Audit & Controls will be handled by the Data Conversion team and OFSLL |
|  | OFSLL won’t be bringing any closed loans, zero balances. Also if the balance is not zero, it won’t be migrated |
|  | Migrated accounts will be read-only (including no billing, no reporting, no interfacing, post conversion transaction errors and reporting) post conversion in legacy system |
|  | TMO CONVERSION TEAMTMO conversion team and datagrid team will update the data grid upon migration status updates |
|  | All CPNI must adhere to existing TMO security procedures. Migration rules are part of the mapping document |
|  | Data correction issues will be identified and coordinated with the legacy system to correct prior to live conversion (i.e.identify, trouble ticket to production, correction, ticket closure, re-pull, retest).   * Data issues may be identified during mock migrations * Selection exclusion criteria may require modification due to data issues that pop up |
|  | Data issues won’t be corrected during live migration. |
|  | EIP will not be blocking accounts from performing activities prior to migration. Ex. EIP will not restrict customer from making balance payments prior to the migration, filters will be applied as part of the selection criteria. |
|  | Reconciliation of migrated data will be handled in the staging environment by the TMO CONVERSION TEAMTMO conversion team. Reconciliation will not be handled by EIP. Although EIP must extract their reconciliation for comparison |
|  | Failures in the migration will be addressed by unlocking the loan in EIP and restoring it in datagrid (if the case), and thereby keeping the loan within EIP. |
|  | Until migration is completed from Magenta legacy systems, the data grid shall enable front end applications to query and maintain customer and transaction information across the new OFSLL and legacy EIP systems. |
|  | The Legacy EIP system shall populate the EIP Financial Activity Table with all EIP activity using the correct Activity Descriptions, sales channel, dates, statuses, amounts, etc. until the EIP plan is closed or migrated to the new loan system |
|  | Customers with Legacy EIP plans will continue to be billed monthly installments at the plan level (i.e. summation of all devices currently active under one Plan ID until migration to the new financing system is complete. |
|  | Test requirements should be addressed in the QA test documentation. |
|  | By the time of migration most (if not all) loans will be at the device level. Selection criteria will be used to exclude any legacy plans. |
|  | There won’t be void return scenarios |
|  | There won’t be void msisdn transfer scenarios |
|  | There won’t be same day NAT return scenarios |
|  | Leases, B2B loans, and other loans excluded by the migration won’t be impacted by the migration. |

## Issues

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ISSUE** | **RESOLUTION** | **Risk Owner** |
|  | See Open Issues log in Section 7 |  |  |

## Risks

|  |  |  |  |
| --- | --- | --- | --- |
|  | **RISK** | **RESOLUTION** | **Risk Owner** |
|  | There is no rollback process, any errors will need to be managed operationally. | Once data hits Oracle’s intermediate tables, it will be too late for a rollback. |  |
|  | Do we convert any closed Loans? How far back? E.g. preceding 90 days? What is the scope of “Closed” in EIP? If an Installment Plan has a closed item and 1+ active Loans, when we convert the Installment Plan do we also convert the related closed item(s)? | Note that in OFSLL because we are not bringing over any recent financial transactions for the Loan then we cannot effectively re-open that Loan. |  |
|  | Data integrity issues in EIP | Any issues that can’t be resolved prior to migration will be addressed using exclusion selection criteria |  |
|  |  |  |  |
|  |  |  |  |

## Dependencies

|  | **Dependency** | **RESOLUTION** | **Dependency Owner** |
| --- | --- | --- | --- |
|  | OFSLL deployment |  |  |
|  | Energizing of Data grid |  |  |
|  | Payment project (National Retailer) |  |  |

# Current Functional Context and Interfaces

1. EIP is used by POS to retrieve the EIP eligibility and some ECL components; it performs EIP estimations, plan creation, returns, exchanges, void returns and to obtain the ineligible SKU list.
2. EIP is used by HSO, Telesales and Web to retrieve the EIP eligibility and some ECL components; it performs EIP estimations, plan creation, and to obtain the ineligible SKU list and per SKU down payment.
3. TMAG is calling EIP webServices for EIP eligibility and some ECL components as well as for EIP estimations.
4. The EIP UI is opened from QuikView and CSM. It allows special REPs the ability to view the customer’s ECL, ECA and ECB at BAN level, existing EIP plans, history of EIP plans as well as perform returns and set TempDouble ECL.
5. The EIP disclosure is managed by ESP – it holds the per-state templates and issues the disclosure at time of EIP plan setup.
6. The EIP system provides the minimum Down payment per SKU and returns it as the First Installment to the IHAPs.
7. EIP monthly and accelerated charges as well as EIP adjustments are sent to Samson for A/R balance impact and bill presentation purposes in batch mode via the CIG process.
8. EIP provides Samson a BAN level indication as to the longest open EIP plan.
9. EIP receives from SAP via a file interface the list of shipped orders and it updates the status of the corresponding EIP plans.
10. EIP provides SAP with the extract for the imputed interest activities.
11. EIP provides Engineering the file of blocked IMEIs.
12. EIP retrieves from Samson changes on the BANs in a nightly batch synchronization process.
13. BI picks up EIP data directly from EIP tables, as needed.
14. EIP is used by QuikView to present some EIP related info

## Scope

### In-Scope

|  |  |
| --- | --- |
| **Number** | **Description** |
|  | Loans associated to active Postpaid Account (BAN), all active and suspended subscribers will be migrated.   * Active loans associated to the subscribers will be migrated   + Active loans (Active, Active-Shipped, Active-Additional-Payment-Applied, Active-Shipped-Additional-Payment-Applied) will be migrated |
|  | Non B2B loans |
|  | Selection Criteria to be finalized by business/architects |
|  |  |
|  |  |
|  |  |

### Out-of-Scope

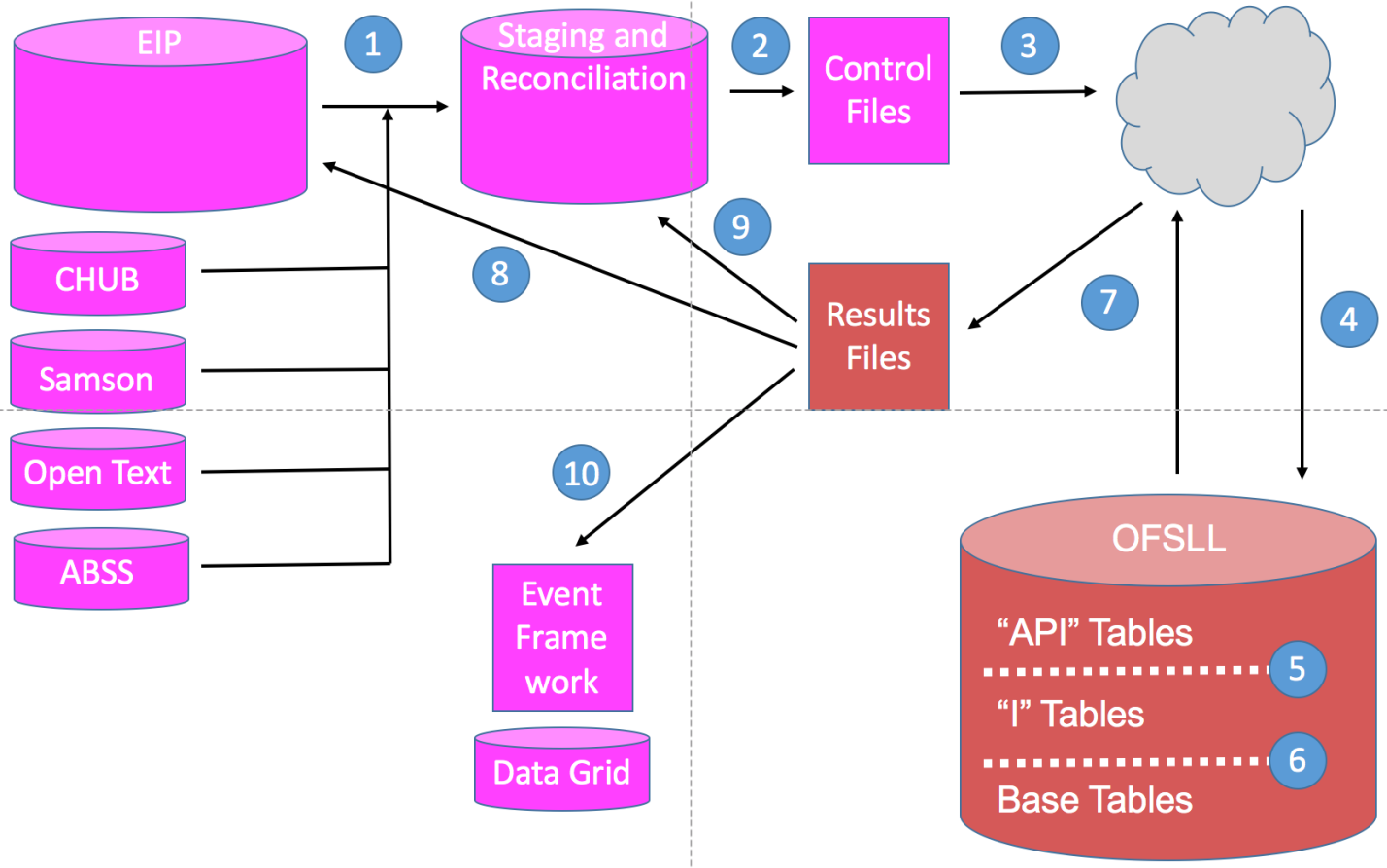
|  |  |
| --- | --- |
| **Number** | **Description** |
|  | B2B loans – to be addressed in future phase |
|  | Leases – to be addressed in future phase |
|  | Pending EIP transactions |
|  | MSISDN – MSISDN will not be migrated to OFSLL. Instead ULID will be sourced from CHUB based on the BAN/MSISDN in EIP. |
|  | Plan and financial history will not be migrated |

### Migration Strategy

* There will be a bulk rolling (phased) data conversion
  + Non B2B Loans will be migrated first
  + Leases will follow loans
* The selection criteria for this approach would also be based on combination of criteria like Product Type, Billing Cycle, and Account Status etc.
* This approach would involve running a migration batch 2-4 times every week. With a loading factor of 500K customer per run and a frequency of 4 runs every week, the elapsed time for the complete migration activity can be estimated as 3 months (Timing to be finalized after mock trials)
* The transfer balance for a Loan will be the stated balance in EIP at the time of conversion
* Billed Loan Charges will be handled BAU by Samson

The scope of migration exercise would be as follows:

* Oracle to develop and execute data migration utility.
* As a prerequisite to the execution of Migration utility, Oracle and T-Mobile conversion team to discuss and finalize Field level details and their corresponding mapping (see Related Documentation section for link to the mapping spreadsheet)
* To perform 3 mock rounds of data conversion before the actual conversion and use the results to fine tune the utility/ data record-set.
* Dedicated Environment to be used for all migration activities.



1. Data is extracted from multiple T-Mobile (TMO) applications.
   1. Prioritization and selection/filtering rules are applied when extracting data from EIP.
   2. Additional data is pulled from other applications.
   3. Data is written to a staging/reconciliation database, including summary timestamps to capture telemetry/timing metrics.
   4. Loans are locked in EIP and hold in datagrid by setting the Status from Active to Locked – Migration.
2. OFSLL-compatible control files are created from the staged data.
3. The control files are uploaded or transmitted between TMO and Oracle.
4. The control files are bulk-loaded into the OFSLL “API” tables.
5. The first stage of processing is run in OFSLL.
   1. Standard and custom business rules are applied to the data.
   2. Successful records are moved to the OFSLL “I” tables.
   3. Once complete, this is the final go/no-go point for all data submitted in that batch!
6. The second stage of processing is run in OFSLL.
   1. Standard and custom business rules are applied to the data.
   2. Successful records are moved to the OFSLL “base” tables.
7. Results files are uploaded or transmitted to a TBD solution between TMO and Oracle.
8. The results are processed for EIP.
   1. Loans that failed to process are unlocked in EIP and restore (pointing to EIP) in datagrid.
   2. Loans that were committed in OFSLL have the balance “zeroed out” by creating a financial transaction in EIP, and then the status is set to Closed in EIP and released (pointing to OFSLL) in datagrid
9. The results are written to a staging/reconciliation database, including summary timestamps to capture telemetry/timing metrics.
10. Events are published to the Event Framework to update the Data Grid.
    1. For the Loan, update the Source Indicator from “EIP” to “OFSLL”.

# Business Requirement Mapping

The migration requirements within the NFS requirements suite were outdated. It was decided by the team to address migration requirements as Raid log items.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project | Req # | Name | Requirement Description | FSD Section | Comments |
| Iteration 1 | MVP-174 | Migration | EIP to close loans to a zero balance in EIP system which are sucessfully migrated over to OFSLL. | Migration Completion |  |
| Iteration 1 | MVP-175 | Migration | EIP to lock loans which are in migrated pending status. | Source Lockdown requirements |  |
|  |  |  |  |  |  |

## Major Design Decisions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Status | RAID Item(s) | Due Date | Owner | Description and Final Design |
| Closed |  |  |  | For converted data from EIP, what to use for the primary key in OFSLL (ACCOUNT.ACC\_NBR)?  DECISION: EIP Equipment ID |
| Closed | 903, 904, 905, 906, 907 |  |  | For converted data from EIP, how to derive the transfer balance?  DECISION: We will use the stated balance in the EIP system on the night of the conversion of the Loan.  RAID decision items 903, 904, 905, 906, 907 that document approval from various business stakeholders. |
| Open |  | 11/15 | Eric Dobbs | Do we convert any closed Loans? How far back? E.g. preceding 90 days? What is the scope of “Closed” in EIP? If an Installment Plan has a closed item and 1+ active Loans, when we convert the Installment Plan do we also convert the related closed item(s)?  Note that in OFSLL because we are not bringing over any recent financial transactions for the Loan then we cannot effective re-open that Loan. |
| Closed | 908, 909, 910, 911, 912 |  |  | Do we convert any financial-transaction history? Balance Payments? Scheduled Payments?  DECISION: We are NOT converting any financial-transaction history. This includes Scheduled Payments and Balance Payments.  RAID decision items 908, 909, 910, 911, 912 that document approval from various business stakeholders. |
| Open |  | 11/15 status update | Peter Samson | How to convert and represent Imputed Interest?  Discussed on Nov 2. Agree that we need the Oracle BRD to be signed off, and that the Oracle BRD might need to be enhanced to represent how Accounting wants to handle Imputed Interest for converted Loans. For example, new Loans originated in OFSLL might have Imputed Interest derived from a series of attributes and a lookup table in OFSLL, but for converted Loans Account might instead want to have a financial amount passed to OFSLL and use that as the residual balance of Imputed Interest for the Loan.  Discussed late on Nov 4 with Steven Ketelsen. Will likely see 2 custom fields for this. One for the residual dollar amount of imputed interest, and one for the imputed interest rate for the converted loan. OFSLL will not lookup/derive the go-forward imputed interest rate when we convert a Loan, so we must provide both attributes when converting Loans.  Likely not relevant until Mock 2. Peter will add more notes…  November 15. Discussed with Alex Cook.   * The Accounting BRD has not yet been signed off with both Oracle and TMO. * We will likely get the needed customizations in OFSLL in the Lot 3 code drop (late January, 2017). * We will likely see 2 fields in the OFSLL “API” tables to convert the residual amount of Imputed Interest: the residual amount, and the go-forward “burn down” rate for Imputed Interest. We would need to derive and provide both values when converting each Loan to OFSLL. |
| Closed |  |  |  | How to derive the Maturity Date?  See comments in Data Mapping spreadsheet for OFSLL API table Application Contract and column APP\_MATURITY\_DT. |
| Open |  | 11/15 |  | Do we convert the IMEI history, or just the current IMEI? Is OFSLL capable of accepting this type of history?  Nov 14. Update notes |
| Closed |  |  |  | Do we convert any Status-change history? Is OFSLL capable of accepting this type of history?  DECISION: No. |
| Open |  | 11/15 |  | Do we convert any other type of history?  Nov 14. Update notes |
| Closed |  |  |  | Should the data-conversion process create a Confirmation Statement after converting an Installment Plan? Should this be for any Installment Plan, or only if there are 2+ active, converted Loans for the Installment Plan? How should we create the Confirmation Statement – publish an event to the Event Framework?  DECISION: The data-conversion process will NOT publish a Confirmation Statement after moving an Installment Plan to OFSLL. |
| Open |  | 11/18 | Ivan Mow | How do we derive the Loan Effective Date for OFSLL? |
| Open |  | 11/18 | Ivan Mow | How do we derive the Last Accrual Date for OFSLL? |
| Closed |  |  |  | For a successfully-converted item, should we publish a special type of event to the Event Framework such that it only updates the data in the Data Grid, and is not consumed by other applications such as Commissions and SAP OER?  November 9. We will call a new API to update the Source indicator (aka bridging indicator). |
| Open |  | 11/18 | Ruchir | How will the OFSLL Customer de-duplication process work, and when will it occur in the process? Our primary “user key” for Customer will be the CHUB Common Customer ID (CCID) and this will be kept in a custom field on the Customer table in OFSLL.  RAID item 913  November 14. Update with comments |
| Open |  | 11/18 | Eric Dobbs | Are we converting Loans for delinquent Samson accounts (BAN’s)? What does it look like in the Collections path? |
| Open |  |  |  | What is the process for Reversals? Relates to the decision on what Closed Loans should be converted to OFSLL?  November 14. update |
| Open |  | 11/15 | Peter Samson and Rachna | When closing the item in EIP as part of the data-conversion process, need to ensure that the EIP “triggering events” do not publish the change to the balance or the change to the status to the Event Framework. Need to work with EIP team to ensure we are in sync here. |
| Open |  | 11/18 | Peter Samson and Eric Dobbs | In the event of a mass number of failures during the first stage of processing in OFSLL (between the API and I tables), what data might be modified in bulk? What is the business-validation process and the EIT-validation process?  November 14. Update. Part of business-acceptance criteria? |
| Open |  | 11/17 | Ivan Mow and Steven Ketelsen | When converting Loans, how do we know which Loans should be marked for Cash-basis Accounting? ACC\_ACCOUNTING\_BASE\_TMO  How will this be vetted in each Mock run, who does it, and what are the Business Acceptance Criteria for it?  Nov 3. Steven Ketelsen confirmed that there is no indicator in EIP. Sounds like we want to pass the fields as part of the data conversion.   * Channel * Credit Class * BAN Tenure (based on the BAN Start Date). TBD if in years, months, and how rounding occurs. * SKU * Loan Start Date. Ivan/Steven to confirm that we are passing the expected value through based on the current data-conversion mappings.   Nov 15. Conversation with Alex Cook of TMO Accounting.   * For data conversion we will simply send a N/Y indicator for Cash-basis Accounting. This is at the individual Loan level. * Should we just take this indicator from TDFADS (Teradata financial data warehouse)? * Does TDFADS have a representation of all EIP Equipment, regardless of the N/Y status? Or just where Cash-basis = Y? * If all EIP Equipment is in TDFADS, how long for a new EIP Equipment record to get established in TDFADS? * If only Cash-basis = Y EIP Equipment in TDFADS, how far back to exclude new EIP Equipment from EIP such that we give the process enough time to decide about Cash-basis Accounting and effectively show it in TDFADS? * Do we ever purge Equipment out of TDFADS such that an older Equipment record might have been closed and now doesn’t exist in TDFADS with the Cash-basis indicator? Asking this question in the context of re-opening an older Equipment record in EIP, and then attempting to convert to OFSLL… |
| Open |  | 11/17 | Ivan Mow and Steven Ketelsen | How are we deriving the SAP Cost Center/Profile Center (aka the CCPC code)? How does this impact the data conversion? Steven Ketelsen indicated that it is a combination of the Channel and the Contract Type.  What is the custom field for Channel? APP\_SOURCE\_CD  APP\_CONTRACT\_TYPE\_TMO  What is the accepted domain/taxonomy of values for each field? How does this align to what Accounting is expecting?  Preliminary values for APP\_SOURCE\_CD: CARE, RETAIL, TPR, NAT, MYTMO, B2B, TSALE, GCA  Preliminary values for APP\_CONTRACT\_TYPE\_TMO: ACQ, UPGRD, ADDLINE, ACCRIES, ACQ\_PR, UPGRD\_PR, ADDLINE-PR, ACCRIES-PR  November 15. What if we re-open an older Equipment record in EIP, convert it over, and it doesn’t cleanly map/derive to a CCPC based on the newer, desired mapping?  November 15. IM/chat with Steven Ketelsen. Related RAID item 923 for the Contract Type. |
| Open |  | 11/17 | Peter Samson and Steven Ketelsen | Plan exists to create a separate new set of entries for CCPC’s.  Need to confirm that all changes are complete BEFORE Mock conversion(s)? And, certainly before Production! |
| Closed |  | 11/18 | Neha | There appears to be a gap between the current set of EIP Equipment Statuses and the OFSLL Status/Condition combinations. This impacts mapping and is a larger, end-to-end design issue.  November 14. May be no impact to conversion. Add notes. |
| Closed |  | 11/14 | Eric Dobbs | Are EIP9, EIP21, or EIP25 in scope for the data conversion?  November 14. EIP 9 is in. EIP21 is out. EIP25 is in. |
| Open |  | 11/18 | Peter Samson and Johan Ericsson | What (if any) telemetry data needs to be captured by the various major steps in the data-conversion process? How and where to capture it? |
| Open |  | 11/18 | Ruchir | Need a custom business rule (RAID item 916):   * All Loans for an Installment Plan must be committed to OFSLL at the same time. If an Installment Plan has 2+ active Loans and one fails, then all must be rejected by OFSLL.   November 15. If running this rule in Step 1 of the process, how to ensure that this rule gets run last in the set of overall business rules in Step 1? |
| Open | 11/18 | API team | Chris Li | Need the API defined for updating the data grid – both the Loan Status and the Source indicator (aka bridging indicator). |

# Summary of Functional Specifications

|  |  |  |
| --- | --- | --- |
| No. | Description | Comments |
| 5.1 | Pre-Migration | Data quality issues will be addressed prior to migration or addressed through selection criteria |
| 5.2.1 | Automated Migration Process |  |
| 5.2.2 | Migration Selection Process | Migration selection criteria to be performed by TMO CONVERSION TEAM team |
| 5.2.3 | Extraction | Extraction to be performed by TMO CONVERSION TEAM team |
| 5.2.4 | Lock Loan |  |
| 5.2.5 | Unlock Loan |  |
| 5.2.6 | Migration completion |  |
| 5.2.7 | EIP reporting |  |
| 5.3 | Non-Functional |  |

# Functional Requirements Details

## Pre-Migration

### Data Cleansing

#### **Current Functionality**

1. There are currently data quality issues within the EIP db,

#### **Business Needs**

1. Data correction issues will be identified and coordinated with the legacy system to correct prior to live conversion (i.e. identify, trouble ticket to production, correction, ticket closure, re-pull, retest). (per Migration HLSD)

The following is a list of issues that the business has noted must be resolved prior to migration

|  |  |  |
| --- | --- | --- |
| **Issue ID** | **Issue Description** | **Comments** |
| 107 | Returns in SAP not showing as returns in EIP | Investigate (some of the statuses weren’t active) |
| 109 | IMEI update inconsistencies in EIP (Null or duplicates) | These need to be excluded from the selection criteria. Not sure if there’s a systematic way to fix this issue. |
| 115 | Records exist in EIP (as Active-Shipped) that do not post to SAP | Not sure how this impacts migration, since we’re looking for active loans in EIP, not SAP for the migration. Perhaps EIP or SAP OTC needs to resend missing records to SAP OER? |
| 117 | Order shipped in SAP, but wrong status in EIP or no record at all | Investigate |
| 119 | Order ID missing in EIP | Order id = transaction id, which is always populated, so this may just be a misnomer |
| 121 | IMEI exists in POS, but not in EIP | Investigate (IMEI tracking report) |

#### **Assumption**

1. MSISDN will not be cleansed, as it is not part of migrated fields in OFSLL.
2. Not all IMEIs will get cleansed by the business team.
   1. Null and duplicate IMEIs will be excluded from the migration criteria
3. Some data issues may come from upstream applications and may not be corrected in time for migration

#### **EIT Design**

1. Business teams will identify areas with known data discrepancies.

#### **Desired EIP Functionality**

1. EIP shall assist in addressing data discrepancy issues following the Remedy ticket process
2. For data discrepancies that won’t be addressed prior to migration, filter criteria will be used to prevent erroneous data from being migrated.
   1. Ex. Negative or zero balance owed for active plans

#### **IHAPs Impact**

1. Some IHAPs may need to be involved with data cleanup.

#### **Business Responsibility**

1. Business shall provide input and guidance around known data discrepancies.

## Migration Requirements

 EIP shall:

* Lock the loans in EIP and prevent updates during migration
* Unlock the loans which fail the migration process
* Close the loans that have successfully migrated to OFSLL
  + Update the balance to zero

### Automated Migration Process

#### **Current functionality**

1. N/A

#### **Business Needs**

1. The migration process from EIP to OFSLL needs to be automated

#### **Assumption**

1. During the migration release window, App Support will prevent any batch jobs that would impact the lock from running
2. Locking of the loans on the data grid will be handled by the Conversion team

#### **EIT design**

1. EIP shall create an automated method to lock and close out the migrated loans.
2. EIP shall use this automated method to unlock loans that fail to migrate successfully.

#### **Desired EIP Functionality**

Note: Final table/fields will be covered in the EIP Tech Specification document

1. EIP shall create a temp table (ex. EIP\_NFS\_MIGRATION\_TRACKING) that will track the loans to be migrated
2. The table will contain fields that track the loan migration status requests from TMO CONVERSION TEAM, and updates processed by EIP (fields to be covered in the Tech Spec)
   1. For Ex. BAN, Installment\_plan. Id, eip\_equipment.ID, event type, processed indicator, retry attempts, error message
3. EIP shall create an automated process that performs the following functions:
   1. Processes the requests from TMO CONVERSION TEAM to update statuses of impacted loans
   2. Tracks the processing within the migration tracking table
   3. Set all affected loans to an equipment status of (based on the event type request):
      1. Locked-Migrating (lock)
      2. Closed-Migration (close)
      3. Previous status (unlock)
   4. Provides feedback (success and failures) to TMO CONVERSION TEAM when the transactions have been processed
4. No operations can be performed on these EIP plans with devices which are in “Locked-Migrating” status. (see Source Lockdown Requirements section)

#### **IHAPs Impact**

1. The Data Grid platform will expose the migration status (not migrated, migration in progress, migration complete). Interfacing applications need to recognize the “migration in progress” state to prevent or queue transactions associated with migrating customers.
2. Front end and back end systems may need to consume the new device locked-migration status to properly message the rep/customer regarding the migration.
3. Reporting systems will need to accommodate the new EIP migration tracking table.
4. App Support/Tidal teams will need to be aware of any new batch jobs.

#### **Business responsibility**

1. N/A

### Migration Selection Process

#### **Current Functionality**

1. N/A

#### **Business Needs**

1. Only non-B2B loans will be migrated to OFSLL for the first phase of migration
   1. Employee accounts may be the first set to be migrated
2. Migrate only active loans under an active/suspended BAN
3. Exclude data issues
4. Exclude loans that have transactions that can be reversed
5. Exclude leases

#### **Assumption**

1. The Conversion team will run the extraction process based on the selection criteria provided by the business
2. Loans successfully migrated won’t be part of subsequent the selection/extractions

#### **EIT Design**

1. TMO CONVERSION TEAM team will identify the loans that need to be migrated utilizing data within the EIP and other source systems

#### **Desired EIP Functionality**

1. N/A

~~Note: Final table/fields will be covered in the EIP Tech Specification document~~

**~~Selection Criteria~~**

1. ~~The following BAN criteria will be used:~~
   1. ~~Active and suspended status~~
   2. ~~Non-delinquent~~
   3. ~~Non B2B (ACCOUNT\_TYPE not in (‘B’,’G’,’N’,’R’,’S’))~~
   4. ~~First iteration may start with Employee accounts (ACCOUNT\_TYPE = ‘S’ and ACCOUNT\_SUB\_TYPE = ‘Y’~~
   5. ~~No bans that has loans with bill cycles within three (3) days of the Samson Bill Cycle Day for the BAN. EIP submits its charges to Samson two days prior to the Bill Cycle Day, so we want at least one additional day. For example, if the Bill Cycle Day is “5” (fifth day of the month), then we will not include the Loan if the calendar date is after the second day of the month, or before the 6th day of the month. Moreover, we need to also look at the stated EIP Bill Cycle Day in case there is a data-quality issue between Samson and EIP.~~
2. ~~All active loans shall be migrated to the new platform.~~ 
   1. ~~Only the loans with the following device level statuses will be migrated (No pending and closed loans will be part of the migration):~~
      1. ~~Active~~
      2. ~~Active-Shipped~~
      3. ~~Active-Additional-Payment-Applied~~
      4. ~~Active-Shipped-Additional-Payment-Applied~~
   2. ~~Only device level loans will be migrated~~
      1. ~~Charges must be at the device level (legacy plan level loans won’t be migrated)~~
      2. ~~Installment plan start date >= ‘09/01/2013’~~
      3. ~~Loans that haven’t already been migrated to OFSLL~~
      4. ~~Finance\_type in (‘LOAN’,’POIP’)~~
      5. ~~All active loans under the same installment plan should be migrated within the same migration window, there will be no partial migration~~
   3. ~~Exclusion criteria for data issues:~~
      1. ~~Balance < 1.00, regardless of Loan/Equipment Status.~~
      2. ~~ECLB <> ((Remaining Pmt Cnt - 1) \* mnthly pmt amt) + last instmnt amt~~
      3. ~~Active but no payments remaining (ie., remaining payment count <= 0)~~
      4. ~~Loan is for a Handset but there is no IMEI for the Loan.~~
      5. ~~If the Installment Plan was created that same day. Relates to same-day Post Void from POS UI.~~
   4. ~~Loan which processed actions that could be reversed within 60 days, will be part of the exclusion criteria:~~
      1. ~~Exclude loans with balance transfers made within the past 60 days~~
      2. ~~Exclude loans that had balance payments made within the past 60 days~~
   5. ~~Bans with multiple active loans will be migrated.~~
      1. ~~BANs with active installment plans, containing multiple device level loans will be extracted at the same time~~
      2. ~~Loans within the same installment plan will be migrated~~
         1. ~~If an Installment Plan has 2+ active Loans then all must be extracted at the same time.~~
      3. ~~OPEN: Do we need to migrate closed loans?~~
      4. ~~OPEN: Should all active installment plans under a ban be migrated at the same time?~~
3. ~~Leases and B2B loans will be migrated at a later date~~
4. ~~Loans that fall outside of the selection criteria will either be migrated at a later date, or stay within EIP (ex. Loans with data integrity issues)~~
5. ~~Re-opened loans associated to BANs with loans that were already migrated to OFSLL, will have higher priority.~~
6. ~~Newest loans will also have higher priority than others.~~

#### **~~IHAPs Impact~~**

1. ~~N/A~~

#### **~~Business Responsibility~~**

1. Business will provide/confirm the criteria by which plans/bans will be excluded from the migration suite.
2. Business will need to assist with queries to assess data quality within EIP

### Extraction

#### **Current functionality**

1. All EIP plan and device level information are in the legacy EIP system.
2. EIP is not payment aware.

#### **Business needs**

* 1. Active non-B2B loans need to be extracted from EIP, transformed, and loaded into OFSLL.
  2. If there are locked loans that fail in the extraction process, those loans will need to be unlocked.
  3. Loans previously excluded will be re-evaluated and re-run thru the migration process at a later date.

#### **Assumption**

1. There will be no financial transaction history extracted as part of the migration
2. Only active plans/devices will be extracted (see Migration Selection Process section)
3. EIP will not be handling the extraction, transformation, or loading processes, or any error correction.
4. EIP/TMO CONVERSION TEAM will not support partial migration. All devices under a plan must migrate at once.
5. The Data Conversion TMO CONVERSION TEAM shall extract EIP data for the locked loans identified within the new migration table, applying validation, and post them as events to the digital event framework.

#### **EIT design**

1. EIP will assist the migration team in validating queries for exclusion/extraction criteria
2. The TMO CONVERSION TEAM will extract the loan data based on the loans successfully locked in the EIP
   1. The data to be extracted is captured in the NFS-OFSLL Data Mapping spreadsheet (see Related Documentation for the link)
3. The TMO CONVERSION TEAM will create and transform the extracts for the migration as needed by OFSLL
4. The data will then be loaded into OFSLL by TMO CONVERSION TEAM.

#### **Desired EIP Functionality**

* 1. EIP shall help validate the Data Conversion team’s extract queries

#### **IHAPs Impact**

#### **Business responsibility**

1. The business will validate the fields required for migration.

### Lock Loan

#### **Current functionality**

1. Current legacy EIP system interacts with Samson, middleware, and front end and backend applications.

#### **Business Needs**

1. Non-B2B loans in EIP need to be migrated to the new OFSLL system
2. In support of migration of EIP loan data to OFSLL, loans will be locked preventing any changes during migration
   1. Migrating loans will be set to a read only state.

#### **Assumption**

1. EIP will not be blocking accounts from performing activities prior to migration. Ex. EIP will not restrict customer from making balance payments prior to the migration, filters will be applied as part of the selection criteria.
2. During the migration release window, App Support will prevent any migration impacting batch jobs from running
3. TMO CONVERSION TEAM will be running selection/prioritization criteria against EIP replication hub
4. TMO CONVERSION TEAM will have read access to the EIP NFS Migration tracking table
5. TMO CONVERSION TEAM will ensure that all active loans under an installment plan are part of the same migration window, EIP will not be performing any validation
6. Leases and non-B2B loans, and other excluded loans will not be impacted by the migration.
7. Loans and leases that aren’t part of the migration won’t be impacted by the migration
8. EIP won’t need to perform any pre-validations prior to locking the loan, assumption is that TMO CONVERSION TEAM is handling the selection criteria, however, it will verify the equipment status is active prior to locking the loan.
9. Conversion team will update the data grid upon loans in EIP being successfully locked.

#### **EIT design**

1. The conversion team will run the selection criteria when extracting data from EIP
   1. Additional fields will be gathered from other source system
2. The conversion team will provide the selection of loans to be locked in preparation of the migration
3. TMO CONVERSION TEAM will monitor the EIP migration table to verify the processing of the locked loans
   1. Upon process completion, TMO CONVERSION TEAM will update the data grid with the proper migration status
4. EIP shall prevent any loan updates for plans associated to the migration
5. Locked plans will only be in read-only mode.

#### **Desired EIP Functionality**

1. TMO CONVERSION TEAM shall insert bulk events to EIP the loans to be locked through the Tibco EMS queue.
2. EIP’s automated process will check for the loan status updates to be processed
3. Upon receiving the request to Lock a loan, EIP shall:
   1. Set all affected active loan statuses to ‘Locked-Migrating’.
      1. EIP will be only locking those loans where
         1. finance type = LOAN or POIP
         2. statuses are: Active, Active-Shipped, Active-Additional-Payment-Applied, or Active-Shipped-Additional-Payment-Applied
   2. Prevent transactions from updating these EIP plans with devices which are in “Locked-Migrating” status.
4. EIP shall create a process to update of the equipment statuses to lock the loans for migration. EIP shall track the migration status processing within a new migration table
   1. Fields include (fields to be finalized in EIP Tech Spec):
      1. Plan\_id
      2. Equipment\_id
      3. migration timestamp
      4. event type: ‘Lock’
      5. processed indicator flag
5. EIP shall have a set number of retry attempts and update the processed indicator accordingly.
   1. EIP shall log errors
6. EIP will prevent front ends from making updates to a migrating loan (no migration specific error needed).
   1. EIP shall not allow any updates to the plans that are under migration:
      1. No payments (Balance payments, trade ins, JUMP, pay off early)
      2. No IMEI updates
      3. No Returns/exchanges
      4. No Voids
      5. No balance transfers
      6. No promotion functionality
7. EIP shall only allow those plans to be in a read only state.
8. EIP UI will grey out the ability of reps to make any changes to the affected plans (ex. Reopen equipment, MSISDN Transfer buttons will be greyed out)
9. EIP will not send the EIP plan data to downstream system views/reports
10. EIP shall not send any updates to downstream systems for those plans under migration:
11. No CIG updates
12. No SCMS updates
13. No SAP OER updates
14. EIP shall not receive any updates from upstream systems for those plans under migration:
15. No SAP updates
    1. Data grid will hold files during the migration and direct to OFSLL upon migration
16. EIP will add a new column to the EIP\_EQUIPMENT table to hold the old migration status (for performance reason).

#### **IHAPs Impact**

1. The Data Grid platform will maintain the migration status. Interfacing applications need to recognize the “migration in progress” state to prevent or queue transactions associated with migrating customers.
2. Front end and back end systems will need to consume the new device statuses and properly message the rep/customer regarding the migration.

#### **Business responsibility**

1. Training

### Un-Lock Loan

#### **Current functionality**

1. N/A

#### **Business Needs**

1. In the situation where the loans failed to be extracted or migrated successfully, the loans would need to be unlocked to continue in EIP until a future iteration of migration.

#### **Assumption**

1. TMO CONVERSION TEAM will notify EIP in the case of extraction failure and of OFSLL I-table failure.
   1. If one loan fails to migrate on a multiple loan plan, Oracle will not migrate the entire installment plan
2. TMO CONVERSION TEAM will capture the reconciliation events, tracking success and failures.
3. TMO CONVERSION TEAM will update the data grid upon loans in EIP being successfully unlocked.

#### **EIT design**

1. The conversion team will run the extract data from EIP and other source systems
2. If there is a failure during the extract process, the conversion team will provide the list of loans to be un-locked due to the failure
3. If there is a failure during the migration process from the Oracle API files to the I-tables to migrate the loans, the conversion team will provide the list of loans to be un-locked due to the failure
4. EIP shall release the loans from migration, essentially unlocking them, setting the loans to the previous status.
5. TMO CONVERSION TEAM will monitor the EIP migration table to verify the processing of the unlocked loans
   1. Upon process completion, TMO CONVERSION TEAM will update the data grid with the proper migration status
6. Un-Locked plans will be allowed to be function as normal

#### **Desired EIP Functionality**

1. TMO CONVERSION TEAM shall insert bulk events to EIP the loans that failed the migration process at different stages of the migration, through the Tibco EMS queue
   1. TMO CONVERSION TEAM will send an unlock event type
2. EIP shall ‘un-lock’ the loan, setting the loan statuses to the previous equipment statuses
3. EIP shall update the EIP migration tracking table process indicator to reflect the loan status updates
4. EIP shall have a set number of retry attempts and update the processed indicator accordingly.
   1. EIP shall log the errors
5. EIP shall not send any status updates to downstream systems for those plans that reverted back to the active statuses.
6. No SCMS updates
7. No SAP OER updates
8. TMO CONVERSION TEAM shall monitor the EIP migration tracking table processed indicators to determine when to update the data grid.

#### **IHAPs Impact**

1. The data grid will maintain the migration status. Interfacing applications will need to recognize the migration states to route the requests to the proper financing system.

#### **Business responsibility**

1. N/A

### Migration completion

#### **Current functionality**

1. N/A

#### **Business needs**

1. Accounting requires the ability to:
   1. reconcile data and balances between legacy EIP and OFSLL ( Reconciliation tables in staging)
   2. identify thru FAT that a plan has migrated to the new loan system
2. Retail and Care reps shall have read-only mode access to migrated loans on the EIP UI and new EIP UI after the loans has been successfully migrated to OFSLL

#### **Assumption**

1. TMO CONVERSION TEAM will notify EIP when the loans have successfully migrated to OFSLL
2. TMO CONVERSION TEAM will capture the reconciliation events, tracking success and failures.
3. TMO CONVERSION TEAM will update the data grid upon loans in EIP being successfully closed and flip the source indicator to OFSLL.
4. Upon successful migration, all transactional requests for migrated loans will be routed to OFSLL, not EIP.

#### **EIT design**

1. TMO CONVERSION TEAM will provide the selection of loans that have successfully been migrated to OFSLL and therefore need to be closed
2. EIP will close the migrated loans in EIP
3. TMO CONVERSION TEAM will monitor the EIP migration table to verify the processing of the closed loans
   1. Upon process completion, TMO CONVERSION TEAM will update the data grid with the proper migration status, identifying OFSLL as the loan source
4. EIP shall prevent any loan updates for plans that have been migrated
5. Closed plans will only be in read-only mode.

#### **Desired EIP Functionality**

1. TMO CONVERSION TEAM shall insert bulk events through the Tibco EMS queue to EIP, the loans that have been successfully migrated to OFSLL and need to be closed
   1. TMO CONVERSION TEAM will send a close event type
2. EIP shall create a new plan/device status – ‘Closed-Migration’, to identify when the plan has been migrated to OFSLL.
3. EIP shall apply the new ‘Closed-Migration’ status to the locked plans and devices that have been migrated.
4. EIP will apply a credit to the migrated plan/device
   1. A new record will be generated in Financial\_activity table to reflect the migration adjustment of the plan/device with activity\_type= ‘migration-complete’. EIP shall treat the transaction in similar fashion to a balance payment being made



1. EIP will zero out the remaining balance and payments in the eip\_equipment and installment\_plan tables
   1. Total equipment revenue, Unearned interest, and total imputed interest in the eip\_equipment and installment\_plan tables will not change based on the migration plan closure.
2. EIP will cancel the remaining charges in the EIP\_CHARGE table
3. BA\_EIP\_REFRESH will continue to send bans that have been migrated
4. EIP shall only allow migrated plans to be in a read only state.
   1. EIP UI will grey out the ability of reps to make any changes to the migrated plans (ex. Reopen equipment, MSISDN Transfer buttons will be greyed out)
5. EIP shall not allow any updates to the plans that have completed migration:
   1. No payments (Balance payments, trade ins, JUMP, pay off early)
   2. No IMEI updates
   3. No Returns/exchanges
   4. No Voids
   5. No balance transfers
6. EIP shall not send any updates to downstream systems for plans that have been closed upon successful migration:
   1. No SAP OER updates
   2. No SCMS updates
   3. No CFAM updates
7. EIP shall not receive any updates from upstream systems for those plans that were migration:
   1. No SAP updates (data will handle directing migrated plans to OFSLL)
   2. No promotion updates
8. EIP shall ensure that no charges, ownership certificates, normal Samson memos for the migrated plans, are sent to Samson.

#### **IHAPs Impact**

1. Reporting systems will need account for the new closed migration plan status, as needed.
2. Front end and back end systems will may need to consume the new plan/device migration completion statuses (they may query EIP before the data grid has been updated).

#### **Business responsibility**

1. Business will need to define the new ‘closed due to migration’ status

### EIP Reporting

#### **Current Functionality**

1. Accounting reports are taken from SAP BW.

#### **Business Needs**

1. Accounting may have reporting requirements based on design and reconciliation
2. Migration reporting will be provided to Accounting providing reconciliation between the Legacy EIP and OFSLL.
3. Any new activity, statuses, fields will need to be factored into the existing EIP Reporting, as determined by Accounting.
4. ?

#### **Assumption**

1. Accounting does not require any additional new fields from EIP for the SAP BW reports (ex. Loan AR Roll Forward, Loan Deferred Interest Roll Forward Report, etc.)

#### **EIT Design**

1. TMO CONVERSION TEAM will provide reconciliation reports

#### **Desired EIP Functionality**

1. EIP will add pre\_migration\_status column to the EIP Equipment History ~~and Financial Activity~~ Views for SAP BW?

#### **IHAPs Impact**

1. Reporting systems will consume the additional statuses/fields added (See the Migration Completion section.)

#### **Business Responsibility**

## Non-Functional Requirements

#### **Desired Functionality**

1. Customer shall have minimal downtime and service interruption throughout the migration process.  
   a. Business and EIT shall agree Service level agreements (SLA's) and acceptable downtime window before every migration cycle.  
   b. Implementation processes, back out processes, resource requirements, reconciliation processes and downtime business processes must be within tolerance.
2. Business and EIT shall agree on Service Level Agreements (SLA’s) and Success Criteria for the migration.
   1. SLA shall be established to determine success criteria
   2. A mechanism shall be created to track, report, correct and then rerun fallout scenarios. SLA shall be established to fix failure scenarios.
   3. Business would like a SLA of 24 hours.
3. The solution shall provide permissioned users with read only availability to legacy systems and reporting for a minimum of 7 years (Required for Unclaimed Property). (To Be confirmed by Legal)
4. Care reps shall have data access in read-only mode on legacy EIP UI after EIP loan has been successfully migrated to new OFSLL system.   
   a. Legacy EIP shall maintain customer information for ‘X’ years.   
   b. After ‘X’ years customer data shall be backed up and purged from legacy system (Value of 'X' shall be 7 years).
5. EIP should ensure that performance isn’t impacted by the migration
6. EIP should also ensure that the solution be scalable to handle the number of migrating loans

# Appendix

# Glossary

List and define any business or technical acronyms, abbreviations, or terms unique to this request.

|  |  |
| --- | --- |
| Acronym | **Definition** |
| AAL | Account Activity Log |
| BAU | Business As Usual |
| CIG | Charges Injection Gateway – file based process that allows posting charges to the Samson A/R balance. |
| ECL | Equipment Credit Line - the amount a customer (BAN level) is allowed to finance via an EIP plan. |
| ECL components | ECL, ELCA, ECLB, Max ECL and MFA – an umbrella term to cover all in an easy expression. |
| ECLA | Available ECL is the remaining credit limit after the customer sets up EIP plans and starts paying them. |
| ECLB | Equipment Credit Line Balance - the outstanding EIP balance on a Customer’s ECL |
| EIP | Equipment Installment Plan |
| TMO CONVERSION TEAM | Enterprise Migration Management Tool |
| FA | Financed Amount - the portion of the device price that the Customer can finance via EIP. This is determined as Net Sales Price less EIP IDP and pay extra amount |
| FAT | Financial Activities Table |
| LLSS | Loan and Lease Servicing System |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# Open Issues

| Issue # | Description | Identified By | Date Identified | State (Open, Closed) | Resolution | Date Closed | Resolved By |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Is Operational and Financial Recon part of migration effort for EIP? | Ethie | 10/21/16 | Closed | TMO CONVERSION TEAM team will handle recon |  |  |
|  | Which OFSLL API table/field are we capturing the BAN? | Ethie | 10/21/6 | Closed | APP\_SAC\_NBR |  |  |
|  | What do we do with accounts that are in mid-transaction? | Ethie |  | Closed | We won’t migrate pending statuses |  |  |
|  | Do we need to migrate loan payments to support balance payment reversals? | Ethie |  | Closed | As part of the selection criteria, loans that have had a balance payment made in the past 60 days will have to be excluded . EIP\_PAYMENT\_LOG where PAYMENT\_TYPE=’P’ within the past 60 days |  |  |
|  | Do we need to exclude loans that performed ban to ban/COR within past 30 days? | Ethie |  | Closed | As part of the selection criteria, loans that have performed MSISDN transfer within 60 days will be excluded |  |  |
|  | Do we need to migrate history? | Ethie |  | Closed | No financial or device history will be migrated |  | team |
|  | Are closed loans in scope? | Migration team |  | Closed | Only migrate active loan |  | Team |
|  | Who is handling the data extraction/transformation/loading? |  |  | Closed | ProComm Consulting (Brandt’s team) |  |  |
|  | Imputed interest from EIP needs to migrated? What other fields are needed? |  |  | Closed | ABA\_BAL\_EARNED1 |  |  |
|  | Does EIP need to perform any pre-validations prior to lo locking |  |  | Closed | No, TMO CONVERSION TEAM will handle selection criteria/  EIP will doing some pre-validation anyway, but no sibling checks |  | Peter/Lakshmi |
|  | Will MSISDN transferred Plans have source/target bans as part of same migration window? |  |  | Closed | MSISDN transfers within the past 60 days will be part of the exclusion/selection criteria |  |  |
|  | Ethie to check if TBC/B2B/ Web platforms uses history service and if this new status values is going to cause any issues for them during the migration window.  This will happen for individual loans that are being migrated.   1. Ensure that there are no consumers for history service for both loan/leop operations at this time. We can address this by scheduling this process to happen only during off hours when there is no business/batch activity. |  |  |  |  |  |  |
|  | Is there a need to send Samson a memo regarding migration from EIP to OFSLL? |  |  | Closed | no defined requirement for that, so nope! | 12/21/16 | Peter |
|  | Are there discrepancies in imputed interest calculations? |  |  |  |  |  |  |
|  | Are there mismatches between FAT (Financial Activity table) outstanding balance due vs Plan balance owed? |  |  |  |  |  |  |
|  | What are the data grid migration related values, besides the source indicator? |  |  |  |  |  |  |
|  | Which system is handling bad dedt lock? |  |  |  |  |  |  |