O2\_GENAI\_INT3817

Lean Specification

O2\_GENAI\_INT3817\_Alternate Bar Codes (Cloud to Logfire)

Document Control Information

Document Information

|  |  |
| --- | --- |
| Document Identification | O2\_GENAI\_INT3817\_Alternate Bar Codes (Cloud to Logfire) |
| Document Name | O2\_GENAI\_INT3817\_Alternate Bar Codes (Cloud to Logfire) |
| Project Name | O2\_GENAI\_INT3817 |
| Client | <Client ID> |
| Document Author | <author> |
| Document Version | V1.0 |
| Document Status | Draft |
| Date Released | XX-XX-XXXX |

Document Edit History

| Version | Date | Additions/Modifications | Prepared/Revised by |
| --- | --- | --- | --- |
| 1 |  | Initial version | <Name> |
|  |  |  |  |
|  |  |  |  |

Document Review/Approval History

| Date | Document Version | Name | Organization/Title | Comments |
| --- | --- | --- | --- | --- |
| < dd-mmm-yyyy > | <Name> | <Organization/Title> | <Comments> | < dd-mmm-yyyy > |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Distribution of Final Document

The following people are designated recipients of the final version of this document:

| Name | Organization/Title |
| --- | --- |
| <Name> | <Organization/Title> |
|  |  |
|  |  |
|  |  |

Table of Contents

[1. Summary 13](#_Toc866632679)

[1.1 Purpose/Justification 14](#_Toc1382905738)

[1.2 Integration Description and Overview 14](#_Toc1876114247)

[1.3 Business Rules 14](#_Toc1866413719)

[1.4 Sample Output / Screen Layout 14](#_Toc2060063258)

[1.5 Definitions and Acronyms 14](#_Toc566082287)

[2. Functional Design 14](#_Toc440398116)

[2.1 Integration Details 15](#_Toc189969195)

[2.2 Launch Parameters 15](#_Toc1378242482)

[2.3 Data Selection and Sorting 15](#_Toc1172118489)

[2.4 Key Logic 15](#_Toc2032949060)

[2.5 Data Mapping 15](#_Toc105506811)

[2.6 Interface Trigger Details 15](#_Toc1365153148)

[2.7 Security & Control Requirements 15](#_Toc371559651)

[2.8 Encryption Requirements 16](#_Toc812540554)

[2.9 Error Handling Logic 16](#_Toc1462912309)

[2.10 Assumptions 16](#_Toc1303940392)

[2.11 Dependencies 16](#_Toc129102156)

[2.12 Application Setup Requirements 16](#_Toc917691316)

[2.13 User/Job Role Assignments 16](#_Toc2101699195)

[2.14 Test Scenarios 16](#_Toc1566117669)

[3. Oracle Cloud Technical Design 16](#_Toc1953789299)

[3.1 Overview 17](#_Toc781321440)

[3.2 Detailed Integration Design 17](#_Toc768435576)

[3.3 High Level Flow Diagram 17](#_Toc57309300)

[3.4 Integration Process 17](#_Toc768640841)

[3.5 Integration Details 17](#_Toc115656962)

[3.5.1 Integration\_Name Integration Design 17](#_Toc1344282672)

[3.5.2 HCM Extracts <Needed in case of HCM Extracts> 19](#_Toc1619614873)

[3.5.3 BI Reports <Needed in case of BI Reports> 19](#_Toc739419329)

[3.6 Data File Format 20](#_Toc667317225)

[3.7 Custom Database Objects 20](#_Toc340634541)

[3.8 Custom Stored Procedures 20](#_Toc1836597976)

[3.9 BI Publisher Report Details 20](#_Toc1353093867)

[3.10 FBDI Processing 21](#_Toc1504927407)

[3.11 Web Services 21](#_Toc1547794045)

[3.12 UCM Upload (for FBDI Processing) 21](#_Toc205538677)

[3.13 Enterprise Scheduler Services (ESS) 21](#_Toc1465009598)

[3.13.1 ESS Job details 21](#_Toc1704875866)

[3.13.2 ESS Parameters 21](#_Toc1915727569)

[3.14 Conditions and Filters 22](#_Toc632883229)

[3.15 Environment Configurations 22](#_Toc898345400)

[3.16 Validation & Error Handling 22](#_Toc1602415336)

[3.17 Rollback & Recovery 22](#_Toc2067572864)

[3.18 Purging 22](#_Toc927975499)

[3.19 Notification Requirements 22](#_Toc616507572)

[3.20 Security Requirement 23](#_Toc1975330197)

[3.21 File and Directory Locations 23](#_Toc298774356)

[3.22 Miscellaneous 23](#_Toc1411176600)

[3.23 Components List 24](#_Toc2114206547)

[3.24 Data Selection Criteria 24](#_Toc298936264)

[3.25 SQLs for Data Extraction/Selection/Filtration 24](#_Toc331783871)

[3.26 Data Transmission Mechanism (Required for Interfaces) 24](#_Toc234593792)

[3.27 File Layout / Report Output 24](#_Toc1179598161)

[4. Technical Unit Test 24](#_Toc1596904067)

[5. Application Setup and Technical Requirements 25](#_Toc1471559029)

[5.1 Programs/Report and Parameters 26](#_Toc1145784606)

[5.2 ESS Program, Scheduling and Executables 26](#_Toc1193442402)

[5.3 Security and Controls Requirements 26](#_Toc764184642)

[5.4 Archiving & Purging 26](#_Toc1816168)

[6. Interface Reporting Requirements 26](#_Toc1646827805)

[6.1 Data Validation & Error Reporting 27](#_Toc1155288357)

[6.1.1 Data Processing / Derivation / Validation / Transformation Rules 27](#_Toc394673461)

[6.1.2 Error handling and Retry Mechanism 27](#_Toc601011980)

[6.2 Data Reconciliation 27](#_Toc1220050506)

[7. Open and Closed Issues 27](#_Toc1316227578)

[7.1 Open Issues 28](#_Toc209362499)

[7.2 Closed Issues 28](#_Toc563639713)

[8. Appendix 28](#_Toc1981760444)

# Summary

## Purpose/Justification

This document forms a basis for the detailed technical design for Alternate Bar Codes (Oracle to Logfire). It captures all technical details to address the business requirements given in the functional specification “XXXX - Alternate Bar Codes (Oracle to Logfire)” for developing the “ClientX Alternate Bar Codes From Oracle To Logfire”. This document is intended to provide the developer with necessary information to implement effective and accurate “Alternate Bar Codes (Oracle to Logfire)” design and build.

## Integration Description and Overviews

NA

## Sample Output / Screen Layout

NA

## Definitions and Acronyms

| Acronym | Meaning | Description |
| --- | --- | --- |
| API | Application Programming Interface | The interface that a computer system, library or application provides in order to allow requests for services to be made of it by other computer programs, and/or to allow data to be exchanged between them. |
| FBDI | File Based Data Import | FBDI template for loading records through cloud application |
| ICS | Integration Cloud Service | Oracle cloud platform which supports end to end integration processes between multiple systems |
| DBCS | Database Cloud Service | Oracle Database deployed in Cloud platform which supports data definition and data manipulation language |

# Functional Design

## Integration Details

|  |  |
| --- | --- |
| Integration System Name | O2\_GENAI\_INT3817\_Alternate Bar Codes (Cloud to Logfire) |
| Integration Source |  |
| Integration Target |  |
| Delivery or Retrieval Method |  |
| Full Extract / Changes Only |  |
| Expected Volume | Normal: TBD  Peak: |
| Run Frequency/Schedule |  |
| Integration Notifications | Notifications will be sent to technical or functional resources depending upon the nature of the error. |

## Launch Parameters

NA

## Data Selection and Sorting

NA

## Data Mapping

ICS Lookup Mapping:

| Lookup Name | Attribute | Value | Description |
| --- | --- | --- | --- |
| CLIENTX\_LogFire\_Common\_Lookup | CompanyCode | CLIENTX | Company Code |

## Interface Trigger Details

NA

## Security & Control Requirements

NA

## Encryption Requirements

NA

## Error Handling Logic

NA

## Assumptions

NA

## Application Setup Requirements

NA

## Test Scenarios

NA

# Oracle Cloud Technical Design

## Overview

This document forms a basis for the detailed technical design for **Alternate Bar Codes (Oracle to Logfire)**.It captures all technical details to address the business requirements given in the functional specification “**XXXX - Alternate Bar Codes (Oracle to Logfire)**” for developing the “**ClientX Alternate Bar Codes From Oracle To Logfire**”. This document is intended to provide the developer with necessary information to implement effective and accurate “Alternate Bar Codes (Oracle to Logfire)” design and build.

.

## Detailed Integration Design

NA

## High Level Flow Diagram

NA

## Integration Process

|  |  |
| --- | --- |
| **Process Step** | **Description** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Integration Details

### Integration\_Name Integration Design

NA

|  |  |
| --- | --- |
| **Integration Design** | |
| **Integration System Name** | O2\_GENAI\_INT3817\_Alternate Bar Codes (Cloud to Logfire) |
| **Integration Type** | Inbound  Outbound |
| **Integration Tool** | HCM Extract  BIP  HDL  PBL  REST Services |
| **Data Source** (check all that apply) | Custom Report <insert report name>  Cloud Connect Template Type <specify CCW/PICOF/Other>  Web Service <insert WWS name or external web service>  File Inbound into Oracle <insert file name> |
|  |  |
| **Transformation** | Doc Transformation <name of file>  XSLT <name of XSLT file(s)>  None |
| **Delivery / Retrieval Service** | <insert delivery/retrieval details such as UCM/SFTP/PAAS> |
| **Output/Inbound Filename** | <filename or Not Applicable> |
| **File Format** | <csv, pipe delimited, Not Applicable> |
| **Sequence Generators** | <list> |
| **Document Retention** | <number of days> |
| **Integration System User** | <document the ISU or user ID of custom report owner> |
| **Integration System Security Group** | <document the ISSG or Not Applicable> |
| Additional Information | <Document any details not described above.> |

**<Needed in case of HCM Extracts>**

|  |  |
| --- | --- |
| **HCM Extract Details** | |
| **Entity Names** | * <list if applicable> |
| **Parameters** | * <list if applicable> |
| **Links** | * <document the logic, if applicable> |
| **Filters** | * <list if applicable> |

### HCM Extracts <Needed in case of HCM Extracts>

NA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **HCM Extract Attribute Details** | | | | | |
| **Column** | **Entity Name** | **Attribute Name** | **Conditional Action** | **Conditional Replacement** | **Comments** |

### BI Reports <Needed in case of BI Reports>

NA

**<Needed in Case on Inbound Integrations>**

|  |  |
| --- | --- |
| **Integration Details** | |
| **Entity Names** | * Provide the HDL or PBL entity/entities which are getting loaded |
| **Integration Attributes** | * List of attributes |
| **Integration Maps** | * <list if applicable> |
| **Validation** | * <list if applicable> |
| **Defaulting Logic** | <List of any attributes whose values are defaulted > |
| **Additional Logic** | Add any additional logic specific to the interface |
| **Deployment Details** | Details of Deployment (PaaS or Client Network) |
| **Database Details** | Database connection details for the program |

## Data File Format

NA

|  |  |
| --- | --- |
| Property Name | Value |
| File Format | csv/xml/Oracle FBDI etc |
| Sample Data File | <embed sample file> |

## Custom Database Objects

NA

|  |  |  |  |
| --- | --- | --- | --- |
| Schema | Object Name | Object Type | Purpose |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Custom Stored Procedures

NA

|  |  |  |  |
| --- | --- | --- | --- |
| Schema | Object Name | Object Type | Purpose |
|  |  | Procedure/Function/Package |  |
| Pseudocode |  | | |

## BI Publisher Report Details

|  |  |
| --- | --- |
| BI Publisher Details | |
| Data Model Name |  |
| Report SQL | <SQL Query> |

## FBDI Processing

NA

## Web Services

NA

## UCM Upload (for FBDI Processing)

NA

## Enterprise Scheduler Services (ESS)

NA

### ESS Job details

NA

| Program | Short Name | Application | Description | Executable Name | Output Format |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

### ESS Parameters

NA

| Program Name | Parameter Name | Value | Comment |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |

## Conditions and Filters

NA

| Sr. No | Data Condition | Business Rule |
| --- | --- | --- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

## Environment Configurations

NA

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Parameter Name | Environment | Value |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |

## Validation & Error Handling

**Validations**

* Based on the Last successful run date of CLIENTX\_INTERFACE\_RUN\_DETAILS, ERP query service is invoked to validate any records present. Notification is sent out to users for no data found.

**Error Handling**

1. This interface supports partial processing of data records in the DBCS staging table.
2. If invocation of LogFire REST- Processor service fails, an email notification is sent and Interface status is updated to "Error" in CLIENTX\_ALT\_BARCODE\_STG\_T.
3. Mentioned below are a few sample Error Code/Notification and messages encountered and the recommendations to resolve them

|  |  |  |  |
| --- | --- | --- | --- |
| Notification | ERROR MESSAGE | CAUSE | RECOMMENDATIONS |
| No Data to be processed | There are no data to be processed for the interface. | There are no data in ERP Cloud for processing or DBCS staging table does not have data or the data records do not have the Interface status column set to ‘New’. | Create a Valid data or correct the Interface status column by setting it to ‘New’ for records to be picked up by the interface. |
| Unexpected Error | Some unexpected error happened while processing a batch for the interface. | This notification can be sent out if any of the process fails abruptly which can be either due to the ICS/ DBCS services being down/unresponsive or can also be due to incorrect package being called or any unhandled exception etc. | Check ICS Dashboard for details. |

|  |  |  |  |
| --- | --- | --- | --- |
| ERROR CODE | ERROR MESSAGE | CAUSE | RECOMMENDATIONS |
| Data Validation Error | Data Validation Error | One of the required fields for the entity is missing. | Pass all the required fields. |

The possible Oracle standard error list is exhaustive; hence we have listed a few errors out of the many errors which might be possible.

## Rollback & Recovery

NA

## Purging

NA

## Notification Requirements

NA

| Sr. No. | Error Scenario | Description | Action |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |

## Security Requirement

Below are the security and control requirements for this interface:

|  |  |  |
| --- | --- | --- |
| **Security/Control ID** | **Description** | **Comments** |
|  |  |  |
|  |  |  |
|  |  |  |

## File and Directory Locations

NA

|  |
| --- |
| **ENVIRONMENT: Development** |

|  |  |
| --- | --- |
| SFTP Link |  |
| Folder Location for Output Data File |  |
| File Name for Output Data File |  |
| Output Data File Format | TXT  CSV  XML  Other |
| Folder Location for Error File (if any) |  |
| File Name for Error File (if any) |  |
| Error File Format (if any) | TXT  CSV  XML  Other |

## Miscellaneous

NA

## Components List

NA

## Data Selection Criteria

NA

## SQLs for Data Extraction/Selection/Filtration

|  |  |
| --- | --- |
| SQL StatementsSQL1 | SELECT etpi.tp\_item\_id asl\_id,  null vendor\_id,  esib.inventory\_item\_id item\_id,  esib.item\_number supplier\_item,  etpi.tp\_item\_number item\_number,  'CLIENTX' company\_code,  etpi.tp\_item\_number vendor\_barcode,  esib.item\_number item\_barcode,  (CASE  when to\_date(to\_char(etpi.creation\_date,'YYYY-MM-DD HH24:MI:SS'), 'YYYY-MM-DD HH24:MI:SS') >  to\_date(substr('  $var\_last\_run\_date  ',1,10) || ' ' || substr('  $var\_last\_run\_date  ',12,8)  , 'YYYY-MM-DD HH24:MI:SS')  then 'CREATE'  else  'UPDATE'  end  ) action\_code,  null Uom,  null qty\_per\_uom  FROM egp\_item\_relationships\_b eir,  egp\_trading\_partner\_items etpi,  egp\_system\_items\_b esib  WHERE eir.tp\_item\_id = etpi.tp\_item\_id  AND eir.inventory\_item\_id = esib.inventory\_item\_id  AND eir.master\_organization\_id = esib.organization\_id  AND esib.item\_number != etpi.tp\_item\_number  AND esib.stock\_enabled\_flag = 'Y'  AND esib.inventory\_item\_flag = 'Y'  AND esib.inventory\_item\_status\_code = 'Active'  AND tp\_type in ('MANUFACTURER', 'SUPPLIER')  AND ( (to\_date(to\_char(etpi.last\_update\_date,'YYYY-MM-DD HH24:MI:SS'), 'YYYY-MM-DD HH24:MI:SS') >= to\_date(substr('  $var\_last\_run\_date  ',1,10) || ' ' || substr('  $var\_last\_run\_date  ',12,8)  , 'YYYY-MM-DD HH24:MI:SS'))  ); |

## Data Transmission Mechanism (Required for Interfaces)

NA

## File Layout / Report Output

NA

Technical Unit Test

| Sr. No | Conditions to be tested | Expected Result | Executed? |
| --- | --- | --- | --- |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

# Application Setup and Technical Requirements

## Programs/Report and Parameters

NA

## ESS Program, Scheduling and Executables

NA

## Security and Controls Requirements

NA

## Archiving & Purging

NA

# Interface Reporting Requirements

## Data Validation & Error Reporting

NA

### Data Processing / Derivation / Validation / Transformation Rules

NA

### Error handling and Retry Mechanism

NA

## Data Reconciliation

NA

# Open and Closed Issues

## Open Issues

| Issue Id | Description | Opened By | Responsible | Due Date |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

## Closed Issues

| Issue Id | Description | Resolution | Signoff | Closed Date |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |

# Appendix

NA