OUM

DS.140 Design Specification

Cigna Corporation

BI-RPD-0009\_Control\_Tables

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# 1 Document Control

## 1.1 Change Record

5

| **Date** | **Author** | **Version** | **Change Reference** |
| --- | --- | --- | --- |
| September 12, 2016 | P.S.Keerthi Reddy | 1.0 | No Previous Document |

## 1.2 Reviewers

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# 2 Business Overview

As part of the Building Financial Foundations project, Oracle Enterprise Business Suite (EBS) R12 was implemented / upgraded in an effort to modernize the overall accounting and financial reporting process. Reporting for the General Ledger (GL), Accounts Payable (AP), Fixed Assets (FA) and Accounts Receivable (AR) were developed in Discoverer.

To build upon the current reporting, the Expense Redesign projects plans to implement Business Intelligence (BI) to:

* Integrated systems and reporting tools to automate business processes and better insight into data resulting in time and cost savings
* Self-Service Business Intelligence to aid timely and intelligent business decisions by providing trustworthy and relevant and timely access to data
* Build a solid foundation for future reporting needs, including management reporting and analytics. Replace older reporting tools with modern and more effective integrated reporting technologies
* Provide a platform for analytical and operational reporting
* Adhoc, reporting with drilldown and dashboard capabilities
* Extend the current operational reporting capabilities
* Enhance analytical, real time, metadata reporting capabilities

Business Intelligence reporting will be standardized on the Oracle Business Intelligence Enterprise Edition (OBIEE) platform. Oracle Business Intelligence Application (OBIA) will be implemented to support GAAP, STAT, MLR reporting, extend analysis capabilities, and provide operating expense reporting to various areas in the Finance community.

The control table purpose is to validate and reconcile data loads to ensure loads are completed correctly. Need to build Control table subject area in RPD for end users for adhoc reporting.

## 2.1 Assumptions

|  |  |
| --- | --- |
| **Number** | **Assumption** |
| 1 | Custom ETL (BI-ETL-0001) should have been successfully executed and should have brought the pre-allocated expenses fact and dimensional data should have successfully loaded into BI DW prior. |
| 2 | Out of the box load plans full load and incremental load must have been successfully executed and data should have been loaded successfully in standard BI DW tables. |
| 3 | Data will not be available in real time. Latency of data will directly depend on when the last data refresh (standard and custom) happened. Normal schedule of data refresh is daily / nightly |
| 4 | No analysis or dashboard will be built as part of this requirement. Only subject area structure will be available for end users to perform adhoc reporting. |

## 2.2 Risks & Issues

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Risk/Issue** | **Probability**  **(H/M/L)** | **Mitigation** |
|  |  |  |  |

## 2.3 Referential Documents

The following documents serve as references for the content within this technical design document.

|  |  |
| --- | --- |
| **Name** | **Locations/Attachments** |
| FD | [BI-RPD-0009\_FS\_RD-140\_Control\_Tables\_RPD.docx](https://centralhub.cigna.com/project/epms13058/Expense%20Reporting/Design/Reporting/Functional%20Specs/RPD/BI-RPD-0009_FS_RD-140_Control_Tables_RPD.docx) |

## 2.4 Definitions and Acronyms

|  |  |
| --- | --- |
| **Key Word** | **Meaning** |
| OBIEE | Oracle Business Intelligence Enterprise Edition |
| OOB | Out Of The Box |
| RPD | Repository File |
| ETL | Extract, Transform and Load |
| BI | Business Intelligence |

## 2.5 Block Diagram

NA

# 3 Technical Overview

Control table is used to validate and reconcile data loads to ensure loads are completed correctly between EBS and DWH. Control table subject area is available in RPD for end user to perform adhoc reporting.

Data is populated into **WC\_CONTROL\_TABLE\_F** table which is used to validate the row counts,debits and credits metrics between source system EBS and target system DWH.

Created the subject area ‘Cigna - BI Data Reconciliation’ in presentation layer in RPD

## 3.1 Data Lineage/Mapping

The data mapping for all the columns are shown in below attachment:



The ETL Lineage document is handled in ETL Technical Design Document BI-ETL-0008

<https://centralhub.cigna.com/project/epms13058/Expense%20Reporting/Release%202/TCS-Development/05-DS-140%20Technical%20Design%20TD/TD_DS-140_ETL-0008_ODI_Control_Table.docx>

# 4 Custom Components list

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S.No** | **Area** | **Type** | **New /Change?** | **Name** | **Description** | **Purpose** | **Schema** |
| 1 | RPD | Alias | New | Fact\_WC\_CONTROL\_TABLE\_F |  | Control table for data reconciliation | DCGIT3\_DW |
| 2 | RPD | Logical Table | New | Dim - BI Reconciliation Details |  |  | DCGIT3\_DW |
| 3 | RPD | Logical Table | New | Fact - BI Reconciliation |  |  | DCGIT3\_DW |
| 4 | RPD | Subject Area | New | Cigna - BI Data Reconciliation |  |  | DCGIT3\_DW |
| 5 | RPD | Presentation Table | New | BI Reconciliation Details |  |  | DCGIT3\_DW |
| 6 | RPD | Presentation Table | New | Facts - BI Reconciliation |  |  | DCGIT3\_DW |

# 5 ELT Overview

All the information related to the ELT flow of this component is covered in the Technical document

## 5.1 Data Flow Model

NA

## 5.2 Source System

NA

## 5.3 Target System

NA

## 5.4 Indexes

N/A

## 5.5 Load plans

NA

# 6 RPD Design

This section explains the technical implementation in the RPD

## 6.1 Physical Layer

**Connection Pool**

The existing connection pool for DW is used to connect to the OOB as well as custom tables, since they reside on the same schema.

|  |  |
| --- | --- |
| **Item** | **Specification** |
| Call Interface | *OCI 10G/11G* |
| Maximum Connections | *100* |
| Fully Qualified Table Names | *YES* |
| Data Source Name | *(DESCRIPTION=(ADDRESS\_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=vmsodcgit001.oracleoutsourcing.com)(PORT=30711)))(CONNECT\_DATA=(SERVICE\_NAME=DCGIT3))) (Connection string for the relevant instance)* |
| Shared Login | *Yes* |
| User Name | *DCGIT3\_DW (Data warehouse Schema for the relevant instance)* |
| Enable Connection Pooling | *Yes* |
| Timeout | *5 min* |
| Asynchronous Queries | *No* |
| Execute on Connect | *no* |
| Parameters Supported | *yes* |
| Isolation Level | *Dirty read* |

## 6.2 Physical diagram

Imported the table **“WC\_CONTROL\_TABLE\_F”** in to physical layer .Created the aliastable **“Fact\_WC\_CONTROL\_TABLE\_F”**

## 6.3 Database Objects

## 6.3.1 Database Objects

|  |  |  |
| --- | --- | --- |
| **RPD Object Name** | **WH Object Name** | **Description** |
| Fact\_WC\_CONTROL\_TABLE\_F | WC\_CONTROL\_TABLE\_F |  |

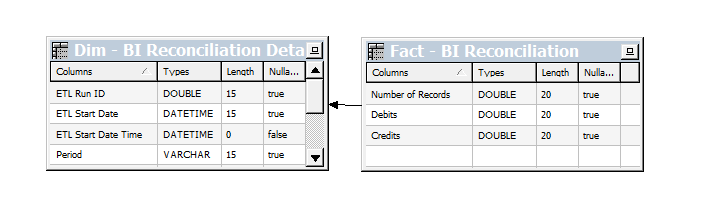
# 7 BMM Layer

## 7.1 Logical Layer

In BMM layer logical tables are created.

|  |
| --- |
| **Logical Table 2** |
| Dim - BI Reconciliation Details |
| Fact - BI Reconciliation |

## 7.2 Logical Diagram



# 8 Presentation layer

In the presentation layer a new subject area **Cigna - BI Data Reconciliation** has been added.



|  |  |  |
| --- | --- | --- |
| Subject Area | Presentation Table | Presentation Column |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | ETL Run ID |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | ETL Start Date |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | ETL Start Date Time |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | Period |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | Type |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | System |
| Cigna - BI Data Reconciliation | BI Reconciliation Details | Source |
| Cigna - BI Data Reconciliation | Facts - BI Reconciliation | Number of Records |
| Cigna - BI Data Reconciliation | Facts - BI Reconciliation | Debits |
| Cigna - BI Data Reconciliation | Facts - BI Reconciliation | Credits |

# 9 Report Design

## 9.1 Report Details

NA

## 9.2 User Prompts

NA

## 9.3 Header

NA

## 9.4 Data Fields

NA

## 9.5 Report Filters

NA

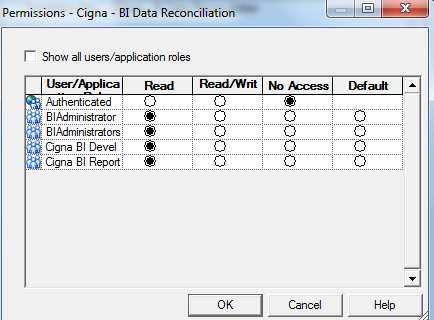
## 9.6 Interfaces- External

NA

## 9.7 Security

Role based security is implemented in the RPD i.e. only the below provided roles are allowed to perform adhoc reporting.

BI Administrators, Developers, and Cigna Business Development users



# 10 Performance

## 10.1 Performance Considerations/Requirements

NA

## 10.2 Stress Test

NA

## 10.3 Loading Timing/Benchmarking

NA

# 11 Open and Closed Issues

1. Add open issues that you identify while writing or reviewing this document to the open issues section. As you resolve issues, move them to the closed issues section and keep the issue ID the same. Include an explanation of the resolution.  
     
   When this work product is complete, any open issues should be transferred to the project- or process-level Issue Log (Manage focus area) and managed using a project level Issue Form (Manage focus area). In addition, the open items should remain in the open issues section of this work product, but flagged in the resolution column as being transferred.

## 11.1 Open Issues

| **ID** | **Issue** | **Resolution** | **Responsibility** | **Target Date** | **Impact Date** |
| --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |

## 11.2 Closed Issues

N/A

| **ID** | **Issue** | **Resolution** | **Responsibility** | **Target Date** | **Impact Date** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
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