Common Reporting Platform for General Ledger Actuals, Anaplan Budget Data and Hyperion Financial Management System

Thejas Prasad

Staff Analyst, Seagate Technology

Abstract: *In the modern financial landscape, integrating diverse data sources into a unified reporting system is crucial for accurate and comprehensive financial analysis. In the pursuit of comprehensive and accurate financial reporting, many organizations face the challenge of integrating data from various specialized platforms. This article explores the deployment of a centralized enterprise data warehouse (EDW) that consolidates data from Oracle General Ledger for actuals, Anaplan for budget data, Oracle Data Relationship Management (DRM) for chart of accounts segments and Hyperion Financial Management (HFM) for consolidated financial statements. By leveraging this EDW, organizations can streamline their financial reporting processes, ensuring consistency, accuracy, and real - time insights. The integration of these distinct data sources into a single repository enables enhanced data governance, improved analytical capabilities, and more informed decision - making. The article also examines the technical and operational challenges associated with such integration and offers strategies for successful implementation and maintenance of the EDW. Through practical examples and expert insights, it highlights the transformative potential of a common enterprise data warehouse in driving financial excellence and operational efficiency.*

Keywords: General Ledger, Anaplan, Oracle E - Business Suite, Enterprise Resource Planning, Financials, Enterprise Data Warehouse, DRM, HFM

1. Introduction

In today's dynamic business environment, the need for robust and comprehensive financial reporting systems is more critical than ever. Organizations often rely on a variety of platforms to manage different aspects of their financial data. For instance, Oracle General Ledger provides detailed actuals, Anaplan serves as a powerful tool for budgeting, Oracle Data Relationship Management (DRM) maintains the integrity of chart of accounts segments, and Hyperion Financial Management (HFM) offers consolidated financial reporting.

Despite the advantages each platform offers individually, the siloed nature of these systems can pose significant challenges for generating cohesive and insightful financial reports. This is where the concept of a centralized Enterprise Data Warehouse (EDW) comes into play. By integrating data from Oracle General Ledger, Anaplan, DRM, and HFM into a unified EDW, organizations can achieve a consolidated view of their financial data, enabling more accurate and timely reporting.

The centralization of data in an EDW facilitates seamless data integration, ensuring that financial information from different sources is consistent and aligned. This not only enhances data governance and accuracy but also empowers financial analysts with real - time insights and comprehensive analytical capabilities. The integration process, however, is not without its challenges. Organizations must address various technical and operational hurdles to successfully implement and maintain an EDW.

This article delves into the architecture and benefits of establishing a common EDW for financial reporting. It explores how data from Oracle General Ledger, Anaplan, DRM, and HFM can be effectively integrated to provide a single source of truth for financial analysis. Through detailed discussions on the strategies for overcoming integration challenges, this article aims to provide a roadmap for organizations looking to enhance their financial reporting systems. Ultimately, it underscores the transformative impact of a unified data warehouse in driving financial excellence and operational efficiency.

1.1 Reporting Challenges for Large Organizations with Multiple Data Systems

Large organizations will have multiple data systems like Oracle General Ledger, Anaplan, DRM, and HFM and the reporting will be scattered as shown in the Fig.1. Manually combining the reports from each of the these data systems to get a holistic view and insights for informed decision making gets very difficult. This in turn adversely impacts the growth and performance of the organization. Following sections will discuss some of the major challenges of having scattered reporting in their eco system.

a) Data Integration and Consistency
Each system operates in isolation, creating data silos that make it difficult to achieve a holistic view of the organization's financial health. Different systems may use varying data formats and structures, complicating the integration process and increasing the risk of errors. Ensuring that data from various sources align correctly requires extensive reconciliation efforts, which are time - consuming and prone to errors.

b) Data Accuracy and Reliability
Inconsistent data quality and reporting across systems can lead to unreliable financial information, affecting decision - making and strategic planning

c) Timeliness and Efficiency

The manual aggregation of data from multiple sources can lead to delays in financial reporting, hindering timely decision - making. The need for extensive manual data handling and reconciliation increases the workload on finance teams, reducing overall efficiency.

d) Compliance and Audit Readiness

Ensuring compliance with financial regulations and standards is more challenging when data is spread across multiple systems. Maintaining comprehensive and accessible audit trails is difficult when data is not centralized, complicating the audit process.

e) Scalability and Flexibility

As organizations grow, the complexity of managing multiple systems increases, making it harder to scale financial reporting processes. Adapting to new reporting requirements or changes in financial regulations is more difficult when data is fragmented across various platforms. The need for specialized skills to manage and integrate different systems can lead to higher operational costs.

f) Data Security and Integrity

Managing multiple systems increases the risk of data breaches and security vulnerabilities. Ensuring the integrity of data across various platforms requires robust data governance practices, which can be challenging to implement.
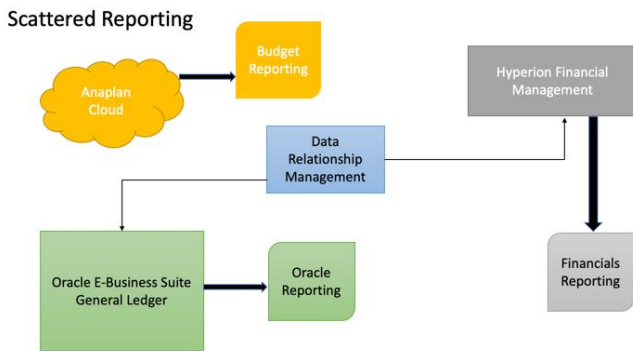

Figure 1: Current scattered reporting in different data systems.

1.2 Solution design for common reporting from multiple data systems and proposed approach

To address the complexities and challenges faced by organizations using multiple data sources for financial reporting, a streamlined data flow process into a centralized Enterprise Data Warehouse (EDW) is essential. This solution integrates data from Anaplan, Oracle ERP, HFM, and DRM, ensuring a cohesive, accurate, and timely financial reporting system. Fig.2 represents the architecture for centralized reporting process design.

Enterprise Data Warehouse (EDW) will have star schema and is designed with Facts and Dimension tables for each sources, there will be a staging area for each of the sources. In the EDW staging area, following staging tables are created,

- DRM_GL_HIERARCHY_STAGE
- ERP_GL_ACTUAL_BALANCES_ STAGE
- HFM_GL_BALANCES_STAGE
- ANA_GL_BUDGET_STAGE

Informatica workflow extracts, transforms and loads data into EDW staging tables and then push to the tables in the EDW star schema,

- DRM_GL_HIERARCHY
- ERP_GL_ACTUAL_BALANCES
- HFM_GL_BALANCES
- ANA_GL_BUDGET

On top of Fact and Dimension tables multiple materialized views are created and these views will serve as the data model for Tableau reporting. Here's an in - depth look at how data flows from each of these systems into the EDW.

a) Anaplan Cloud – Budget and Forecast Data

Anaplan serves as an excellent platform for managing and forecasting budget data. The process of integrating Anaplan's working forecast budget data into the EDW involves:

- Automated extraction of forecast budget data from Anaplan's cloud environment.
- Standardize and transform the budget data to ensure consistency with other financial data sources.
- Load the transformed budget data into the EDW staging area table ANA_GL_BUDGET_STAGE, and then pushed to the base table ANA_GL_BUDGET where it can be accessed alongside actuals and other financial metrics.

b) Oracle E - Business Suite General Ledger – GL Actual Balances

Oracle ERP is a critical source for actual financial transactions, providing detailed General Ledger (GL) balances, account combinations, and ledger information. The data flow process includes:

- Utilizing Informatica ETL (Extract, Transform, Load) tools to extract GL balances, account combinations, and ledger details.
- Ensure that the extracted data is cleansed and transformed to align with the EDW's schema. This includes mapping GL accounts to the standardized chart of accounts.
- Load the transformed GL data into the EDW staging table ERP_GL_ACTUAL_BALANCES_ STAGE and pushed to ERP_GL_ACTUAL_BALANCES, facilitating real - time reporting and analysis.

c) Hyperion Financial Management – Consolidated GL Balances

Hyperion Financial Management (HFM) provides consolidated financial statements, essential for a comprehensive view of organizational finances. The integration process involves:

- Extract the consolidated GL balances from HFM through scheduled Informatica workflow.
- Convert the consolidated data into a format compatible with the EDW, ensuring that consolidation hierarchies and intercompany eliminations are accurately represented.
- Import the transformed consolidated data into the EDW staging table HFM_GL_BALANCES_STAGE and then to base table HFM_GL_BALANCES to enable detailed financial analysis and reporting.

d) Data Relationship Management (DRM) – GL Chart of Accounts Hierarchies

Oracle Data Relationship Management (DRM) maintains the integrity of the chart of accounts and GL hierarchies. The data flow process includes:

- Extract the GL hierarchies and chart of accounts data from DRM.
- Transform the hierarchical data to ensure it fits the EDW's structure, facilitate seamless integration with GL balances and budget data.
- Load the hierarchical data into the EDW staging table DRM_GL_HIERARCHY_STAGE and then synced to the base table DRM_GL_HIERARCHY, supporting accurate and consistent financial reporting. In conjunction with the data from other source systems.
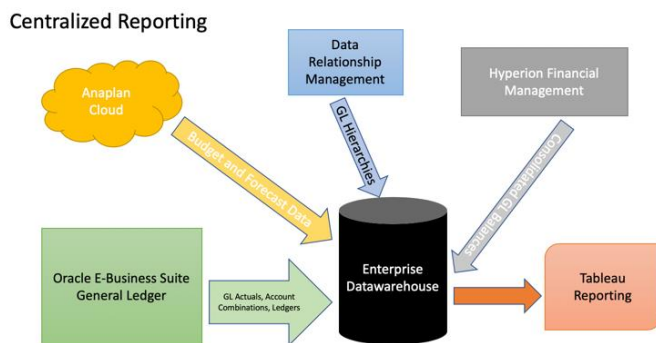

Figure 2: This figure shows the dataflow from multiple data systems to EDW and its reporting

e) Overall Data Flow and Reporting

Automated ETL tools pull data from Anaplan, Oracle ERP, HFM, and DRM at scheduled intervals. Data transformation rules are applied to standardize formats, cleanse data, and ensure consistency across all sources. GL account mappings and hierarchies are aligned to the EDW's schema. Transformed data is loaded into the EDW staging tables and then inserted to final critical tables, ensuring it is immediately available for reporting and analysis. Data validation checks are performed to maintain data integrity and accuracy.

2. Impact

The implementation of common platform for reporting has significant impacts on financial management and operational efficiency. By centralizing data, organizations can maintain comprehensive audit trails, enhancing transparency and accountability. The EDW architecture is scalable, accommodating increasing volumes of data and evolving business needs. This scalability ensures that the reporting infrastructure can grow alongside the organization.

3. Scope

The use case explored in this article involves Oracle E - Business Suite Enterprise Resource Planning (ERP) application and its satellite systems Anaplan Cloud, Data Relationship Management and Hyperion Financial Management system. Informatica is used as the ETL tool and Tableau is used for robust reporting.

4. Conclusion

Implementing a common Enterprise Data Warehouse (EDW) that consolidates data from Oracle General Ledger, Anaplan, Oracle Data Relationship Management (DRM), and Hyperion Financial Management (HFM) significantly transforms the reporting capabilities within an organization. When coupled with powerful visualization tools like Tableau, the benefits and impacts are substantial across various dimensions of financial management and decision - making.

1) **Enhanced Data Integration and Consistency**: By aggregating actuals from Oracle General Ledger, budget data from Anaplan, account segments from DRM, and consolidated figures from HFM, organizations can maintain consistent and accurate financial records. The EDW eliminates the inefficiencies associated with siloed data, providing a cohesive dataset that is accessible to all relevant stakeholders.

2) **Improved Reporting Accuracy Reliability and Efficiency**: With all financial data standardized and housed in one repository, the accuracy of financial reports improves significantly. This reduces the risk of errors and inconsistencies, leading to more reliable financial analysis. Automated data extraction and transformation processes ensure high data quality, minimizing manual intervention and associated errors. The EDW simplifies the process of generating financial reports. By centralizing data, financial analysts can quickly access and compile reports without the need for extensive manual data reconciliation. Leveraging Tableau's robust visualization capabilities, users can create complex reports and dashboards rapidly, providing timely insights to decision - makers.

3) **Real - Time Insights and Decision - Making**: The EDW enables real - time access to financial data, allowing organizations to monitor financial performance continuously and respond swiftly to emerging trends and issues. Tableau's interactive dashboards and real - time data integration provide dynamic reporting capabilities, empowering users to drill down into data and gain deeper insights.

4) **Enhanced Strategic Planning and Forecasting**: By integrating budget data from Anaplan with actuals from Oracle General Ledger and consolidated figures from HFM, the EDW provides a holistic view of financial performance, supporting more informed strategic planning and forecasting. Tableau's advanced analytical tools allow organizations to perform detailed scenario analysis, helping to predict future financial outcomes and make strategic adjustments proactively.

5) **Operational Efficiency and Cost Savings**: Automating data integration and reporting processes, organizations can reduce the time and resources spent on manual data handling, leading to significant cost savings. Financial analysts and other stakeholders can focus on higher - value activities, such as strategic analysis and decision - making, rather than data reconciliation and report preparation.

The implementation of a common Enterprise Data Warehouse, integrated with Oracle General Ledger, Anaplan, DRM, and HFM, and leveraged through Tableau for reporting, brings transformative impacts to an organization. It

enhances data accuracy, reporting efficiency, and real - time decision - making capabilities while ensuring compliance and scalability. By centralizing financial data and harnessing advanced visualization tools, organizations can achieve superior financial management and maintain a competitive edge in today's dynamic business environment.

References

[1] Paul Lane. (December, 2005). Oracle Corporation, CA. Oracle Data Warehouse Guide, 10g Release 2 (10.2) B14223 [Online]. Available: https: //docs. oracle. com/cd/B19306_01/server.102/b14223. pdf

[2] Cindy. (June, 2016). Mint Jutras, LLC, US. Anaplan's Smart Business Platform [Online]. Available: https: //www.anaplan. com/content/dam/anaplan/wp - content/uploads/2016/06/Mint_Jutras_2016 - 1. pdf

[3] Oracle Applications., CA. Oracle E - Business Suite [Online]. Available: https: //www.oracle. com/applications/ebusiness/

[4] Codec - dss. (November, 2016). CODEC. DSS, UK. Hyperion Financial Management [Online]. Available: https: //www.slideshare. net/slideshow/hyperion - financial - management - 69449383/69449383

[5] Kate Helmer. (June, 2016). Oracle Barbie. DRM & FDMEE – Getting Better Together with Features [Online]. Available: https: //oraclebarbie. com/2016/06/23/drm - fdmee - getting - better - together - with - features/