

# De-Mystifying Oracle Business Intelligence Applications

By

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Selecting the right Business Intelligence solution can be a challenging task as often large scale Data Warehousing (DW) and Business Intelligence (BI) projects are often prone to failure. In this paper we will explore the DW & BI solutions for companies who are mainly using Oracle applications such as E Business Suite (eBS), PeopleSoft (PSFT), J D Edwards (JDE) or Siebel Applications. We will discuss different scenarios where packaged BI Solutions such as Oracle Business Intelligence Applications (OBIA) are available as well as scenarios where OBIA is not available or suitable for the company's specific needs.

## Why De-Mystify OBIEE?

The Gartner Magic Quadrant for Business Intelligence Platforms clearly shows that Oracle has one of the leading tools/toolsets. However, at the same time, Gartner (Fig 1) noted that “Surveyed customers continue to indicate that OBIEE, for the developer role, is more difficult to use, on average, than other BI platforms.” While OBIEE or OBIEE based solution such as OBIA is very powerful for the end-users including the power users for ad-hoc reporting, organizations find it difficult to get a handle around it. Hence, this paper and session will focus on de-mystifying OBIEE.

Let us start by looking at the enterprise BI Reporting landscape. The Fig 2 below shows the spectrum of BI from Operational Intelligence to Strategic Intelligence. Operational BI is often tightly coupled with the ERP system and users often invoke it from the operational environment. They look for reports, screen prints and pointers that help to run day to day business. For instance the routing for pickup of packages every evening, say for a UPS driver, would be an example of operational BI. The next level of BI is often referred to as tactical BI and it can take the form of Daily Business Intelligence (DBI) for eBS customers or say Plant Manager Dashboard (PMD) for a J D Edwards customer.





Source: Gartner (January 2010)

Fig 1 Magic Quadrant for Business Intelligence Platforms

	Strategic BI	Tactical BI	Operational BI
Business focus	Develop long-term business goals	Manage tactical initiatives to achieve strategic goals	Manage and optimize daily business operations
Primary users	Executives & business analysts	Executives, analysts & LOB managers	Analysts, LOB managers and users, and operational processes
Time-frame	Months to years	Days to weeks to months	Intra-day
Data	Historical data	Historical data	Real-time, low-latency & historical data

Fig 2 Reporting and BI Landscape

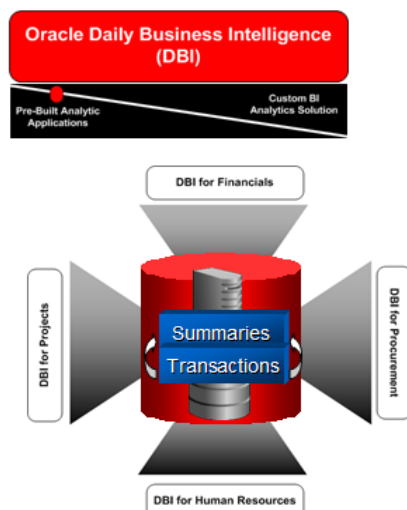


In this paper and the associated presentation we will use a lot of acronym, so we clarify those here. Some of them are tricky as OLAP is the term used in this context for the target Oracle Data Warehouse or Oracle Business Analytics Warehouse (OBAW). However, from 7.9.6.1 version of OBIA, even non-Oracle target databases like DB2 or Teradata are supported.

### Some Commonly User Acronyms

- OBIEE – Oracle Business Intelligence Enterprise Edition
- OBIA - Oracle Business Intelligence Applications
- OLAP (Online Analytical Processing), OLTP (Online Transaction Processing), OBAW (Oracle Business Analytics Warehouse)
- DAC (DataWarehouse Administration Console)
- EUL (End User Layer)
- RPD (Repository), Webcat (Web Catalog)
- INFA (Informatica), ETL / ELT (Extraction Transform and Load or Extraction Load and Transform), EAI (Enterprise Application Integration)
- SDE (source dependent executions)
- SIL (source independent loads)
- Fin (Finance Application), SCM (Supply Chain and Order Management), P&S (Procurement and Spend), HR (Human Resource)
- DBI (Daily Business Intelligence)

## Daily Business Intelligence (DBI)



- Out-of-the-Box:
  - Predefined Roles
  - Predefined Key Performance Indicators (KPIs)
  - Drill-Down Reports
- Embedded EBS Role-based Security
- Data Synchronization
  - Summary Tables & Materialized Views
  - Refresh Daily or As Desired
- Runs Directly from Transactional System – No Separate Reporting Infrastructure Required

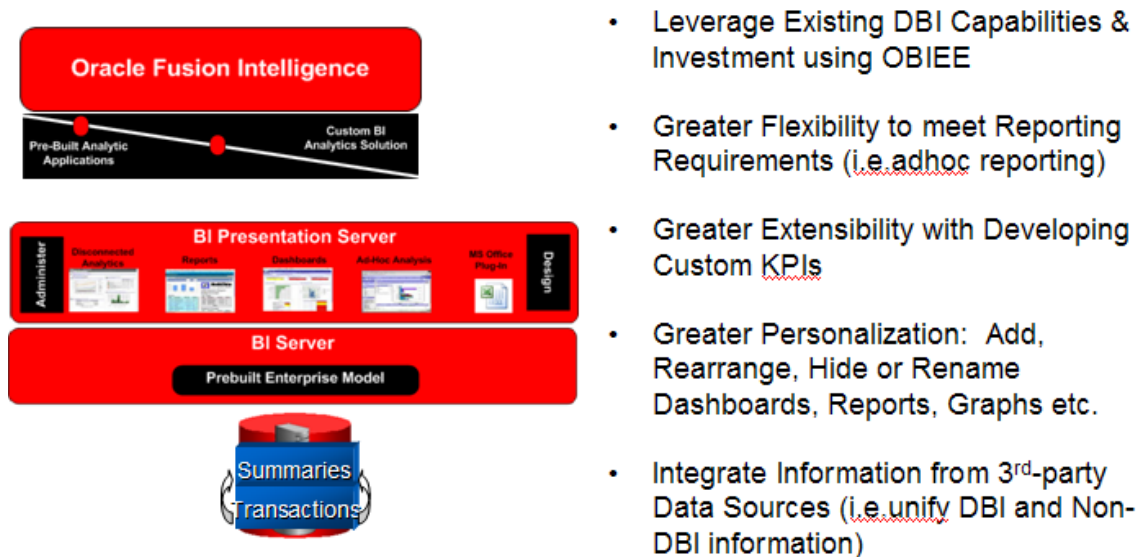
Fig 3 Daily Business Intelligence

When embarking on a decision for the right BI strategy, an Oracle Applications customer faces several options. Here are a few of them at a high level:

**Daily Business Intelligence:** EBS users are typically familiar with DBI since it provides operational intelligence using the transactional database and no need for a separate data warehouse.

**Fusion Intelligence :** Fusion Intelligence is now obsolete (since mar 2009) and is not be confused with the Fusion Edition of OBIA. The reason Fusion Intelligence is discussed here is, it provides a sort of continuity between the DBI and OBIA. Architecturally, it is similar to DBI, being near real time and resident on the transactional schema but using OBIEE as the BI tool.

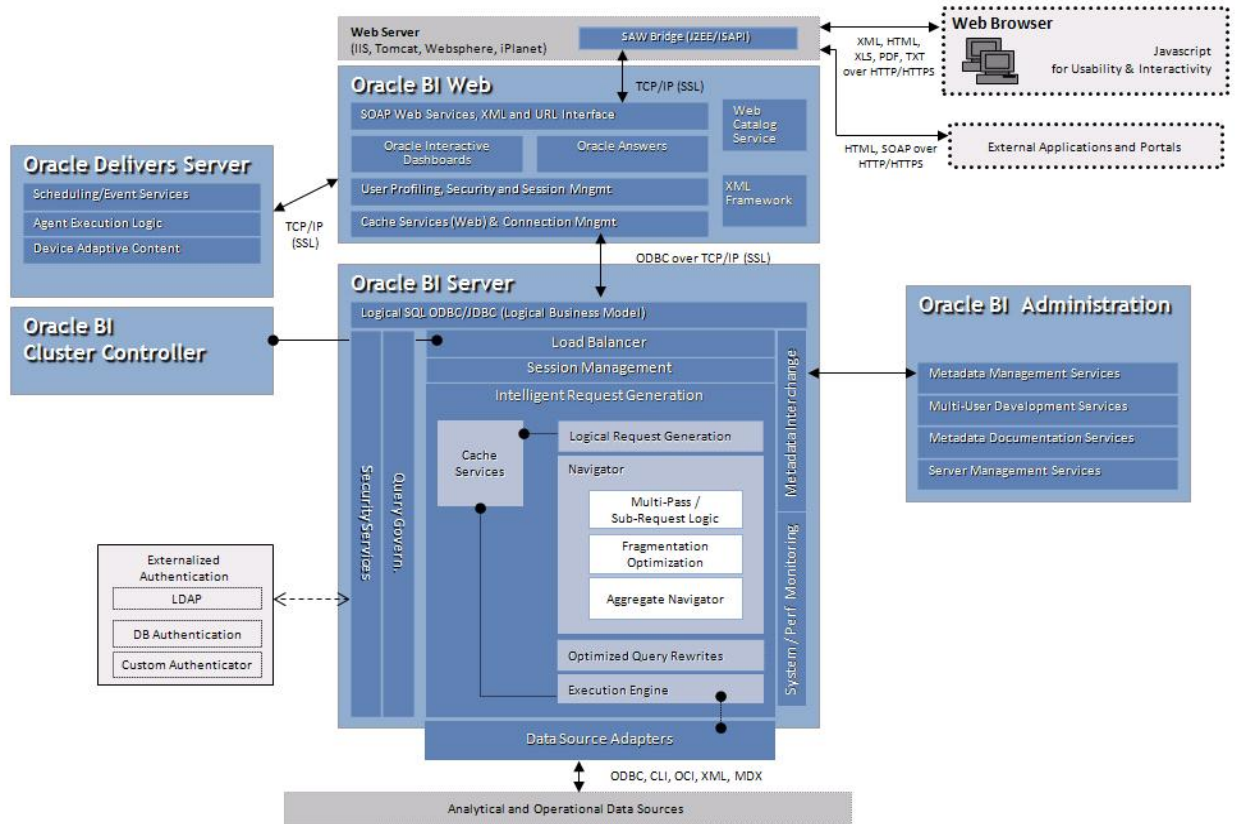
## Fusion Intelligence - EBS Edition (Now Obsolete)



**Fig 4 Fusion Intelligence**

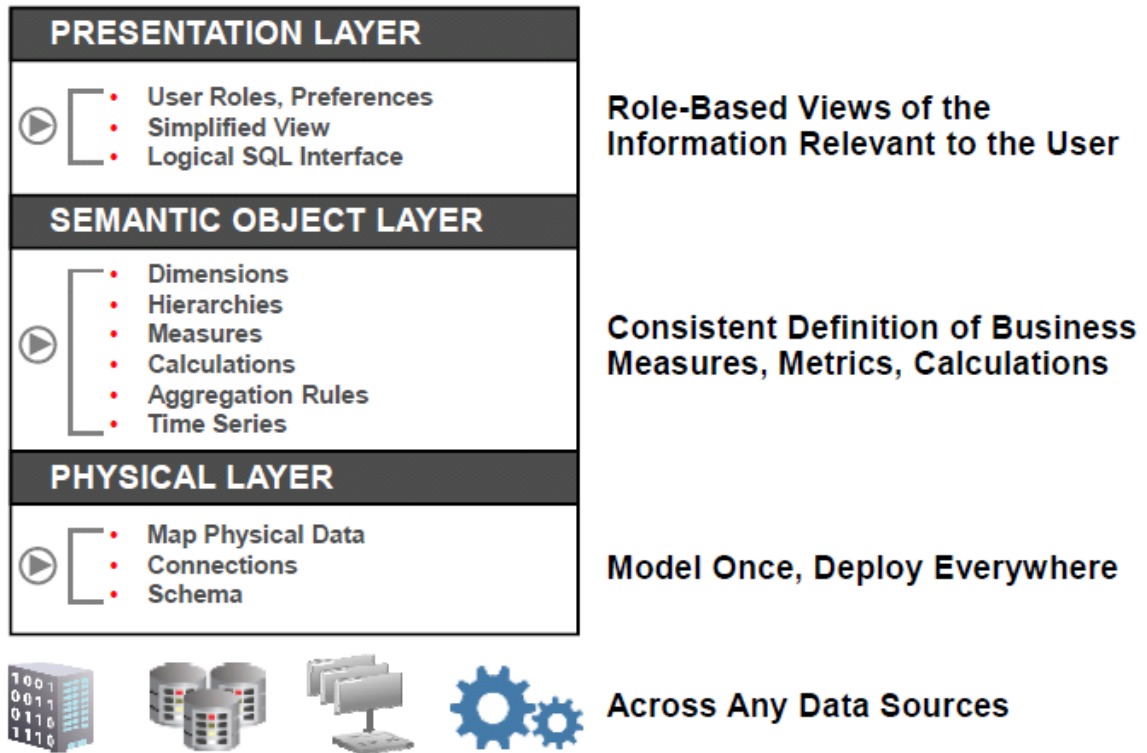
OBIEE – Before we deep dive into OBIA, we should look at the BI suite itself. OBIEE is a very powerful BI tool suite and has several components. The BI Server helps to create the SQL equivalent of the user requests or queries. It is managed via a windows tool called Administration Tool. The OBIEE Presentation services allow the user the rich web experience. In majority of the cases users can manage their day to day activities from the web interface. In more advanced environments, BI servers can be clustered for high availability and load balancing.

# Oracle BI EE Architecture



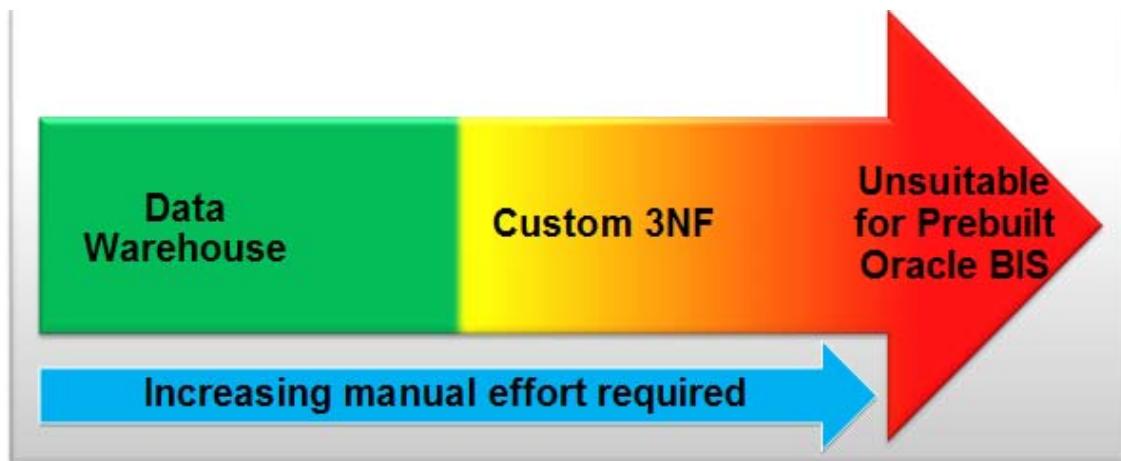
**Fig 5 OBIEE Architecture**

The OBIEE server uses the metadata to generate the SQL queries. It is stored in the Repository or often referred to as .rpd. The repository has three layer as shown below, the physical layer, logical layer and the presentation layer.



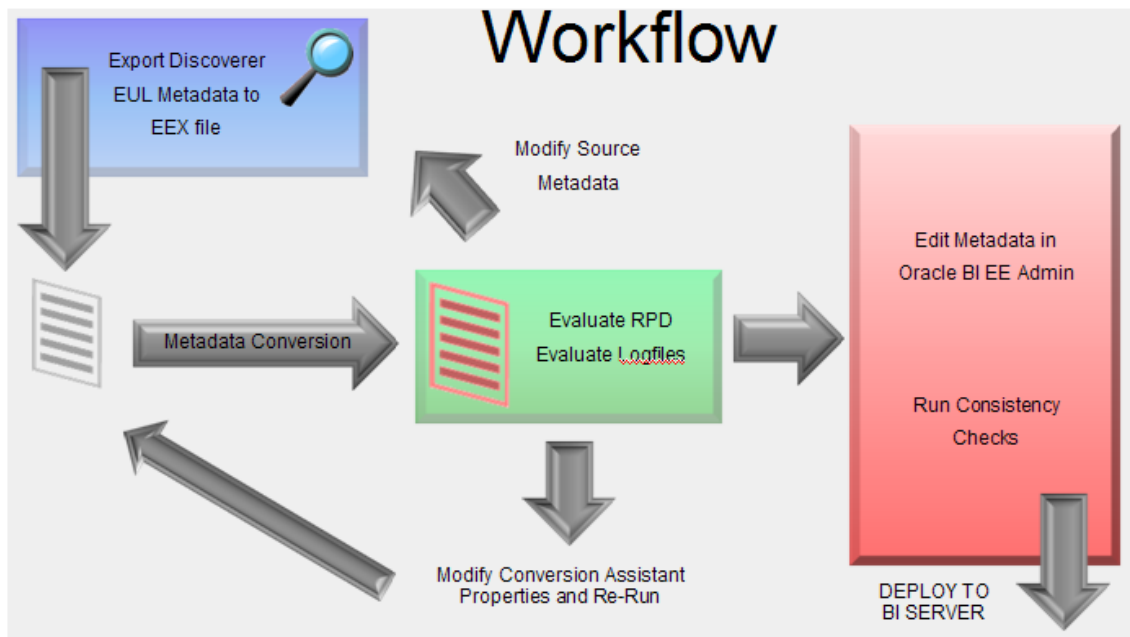
**Fig 6 OBIEE Repository Layers**

Often customers have investments in Discoverer and may consider migrating their End User Layer (EUL), to OBIEE Repository and Oracle provides the migration utility for the same. The presentation will discuss a few scenario where it may apply and where it is not a good fit. Also currently the reports and dashboard conversion tool is not available but is in the pipeline.



**Fig 7 Discoverer to OBIEE Migration**

# Metadata Conversion Assistant



Source: Mike [Durrán](#), Oracle

**Fig 8 Metadata Conversion**

**Selecting the Right OBIA** The below section will help you select the right version of Oracle Business Intelligence applications for the Oracle application is use. For instance of use OBIA 7.9.6, you have to be at least 11.5.10 or higher of EBS. Likewise, it will dictate the other components like you will have to at Informatica 8.6 to use OBIA 7.9.6

Fig 9 displays the dependence of the whole suite of products from the version of OBIEE to ETL tool like Informatica.

Table 8. Supported Source Systems for Oracle Business Intelligence Applications 7.9.6

Vendor and Product	Version	Oracle Business Intelligence Application	Associated Source Application or Module
Oracle Applications	11.5.10, R12.0	Oracle Procurement and Spend Analytics Fusion Edition <sup>3</sup>	Oracle Purchasing/ Procurement Oracle iProcurement Oracle Financials (Payables) Oracle iExpenses
		Oracle Financial Analytics Fusion Edition	Oracle Financials (GL, Payables, Receivables)
		Oracle Human Resources Analytics Fusion Edition	Oracle Human Resources Oracle Payroll Oracle Learning Management Oracle iRecruitment
		Oracle Project Analytics Fusion Edition <sup>4</sup>	Oracle Project Costing Oracle Project Billing
		Oracle Service Analytics Fusion Edition	Oracle Teleservice <sup>5</sup> Oracle iSupport <sup>5</sup>
Oracle's PeopleSoft Enterprise	8.9, 9.0	Oracle Financial Analytics Fusion Edition	Oracle's PeopleSoft Financials (GL, Accounts Payable, Accounts

Fig 9 OBIA Details

Select a Product Pack:

Platform:

Results

Select	Description	Release	Part Number	Updated	# Parts / Size
<input checked="" type="radio"/>	<a href="#">Oracle Business Intelligence (10.1.3) Media Pack for Microsoft Windows (32-bit)</a>	10.1.3.0.0	B36246-24	AUG-10-2009	52 / 31G
<input type="radio"/>	<a href="#">Oracle Business Intelligence 10g Release 1 (10.1.2.0.2) Standard Edition Media Pack</a>	10.1.2.0.2	B35739-01	NOV-09-2006	23 / 11G
<input type="radio"/>	<a href="#">Oracle Business Intelligence Applications 7.9.5.2 for Oracle Data Integrator Media Pack for Microsoft Windows (32-bit)</a>	7.9.5.2.0	B54513-01	APR-23-2009	14 / 6.2G

<input type="button" value="Download"/>	Oracle Business Intelligence Applications 7.9.6	V16390-01	319M
<input type="button" value="Download"/>	Oracle Business Intelligence Data Warehouse Administration Console 10.1.3.4.1 for Microsoft Windows	V16377-01	181M
<input type="button" value="Download"/>	Informatica PowerCenter and PowerConnect Adapters 8.6.0 for Windows x86 (32-bit) (Part 1 of 2)	V16329-01 Part 1 of 2	1.1G
<input type="button" value="Download"/>	Informatica PowerCenter and PowerConnect Adapters 8.6.0 for Windows x86 (32-bit) (Part 2 of 2)	V16329-01 Part 2 of 2	977M

Fig 10 OBIA Software



The below fig shows the high level block diagram of the OBIA stack. We will look at more details of the product in the presentation.

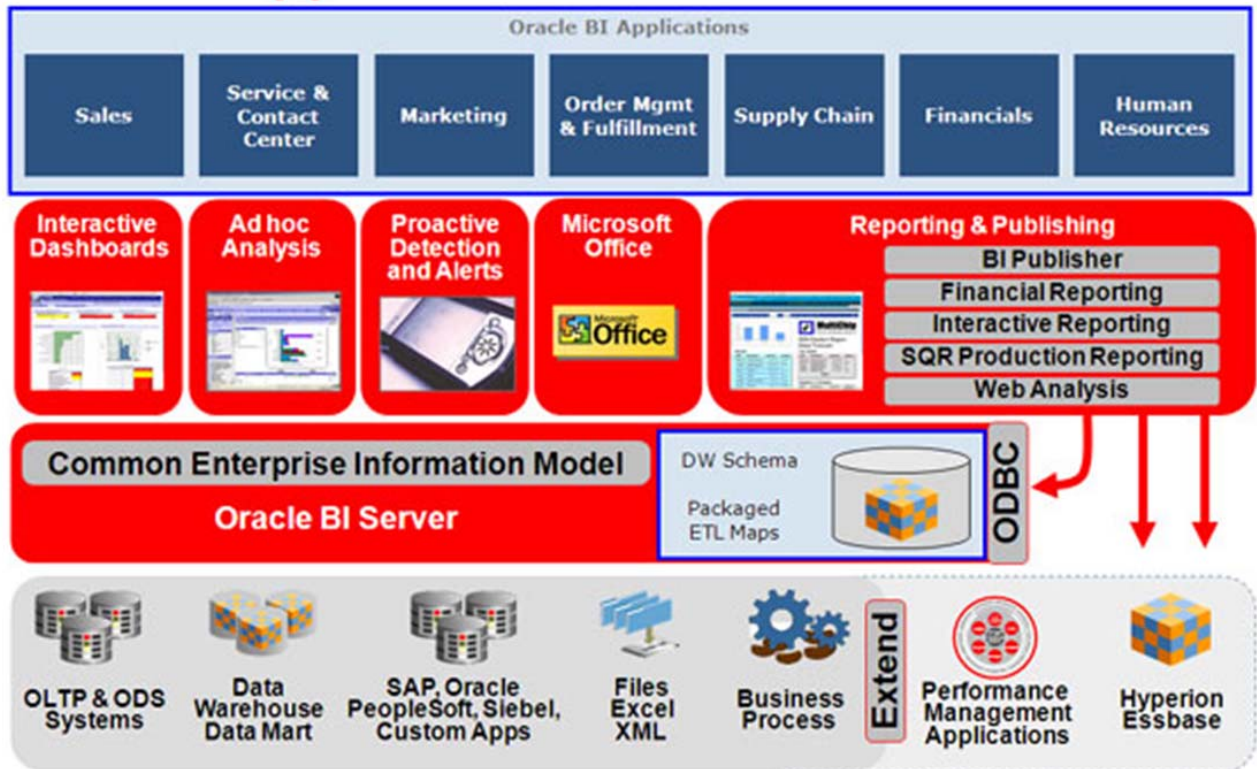
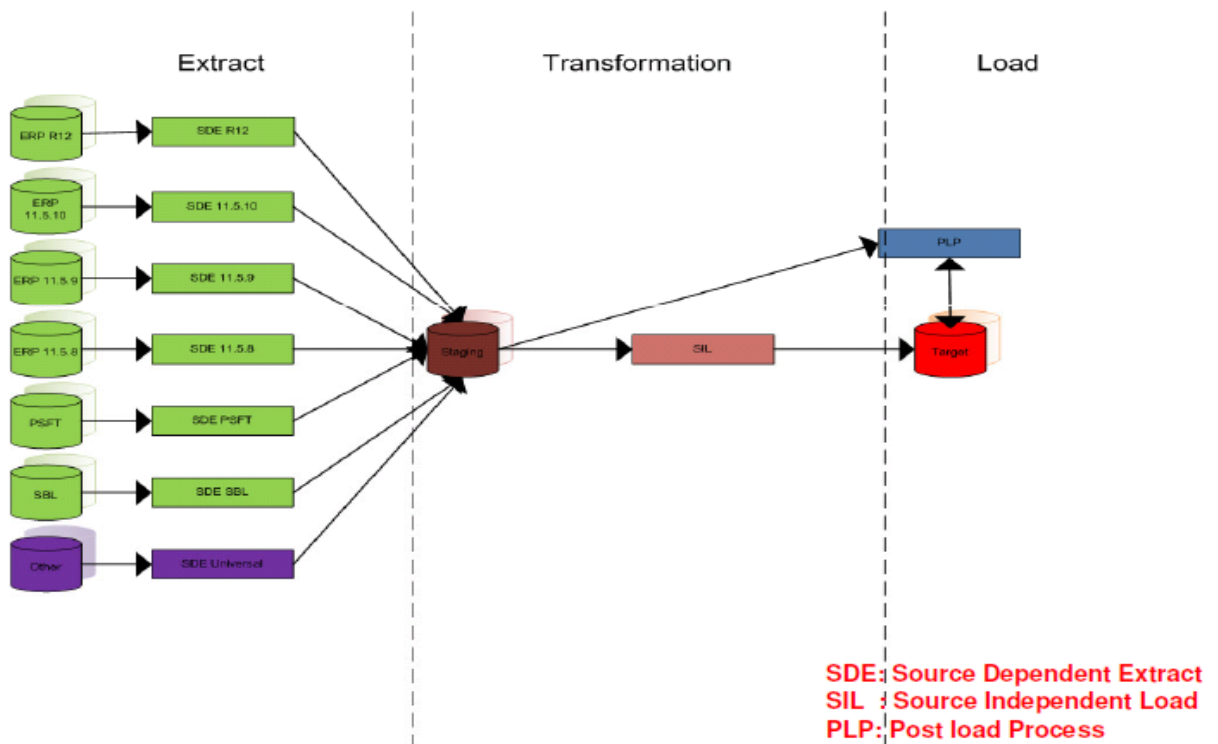


Fig 11 OBIA High Level Visual

In this section, we look at the data flow from the source such as EBS to the Oracle BAW (DW) to the end user via the browser. Figure 12 shows how the ETL is organized in OBIA, such that there is isolation of source side and target side ETL mappings. Due to this kind of ETL and staging architecture as users upgrade the source system there is minimal impact to ETL and its customizations.



**Fig 12 High Level Data Flow**



**Fig 13 Modular Design of ETL**

The presentation will cover the remaining details of OBIA along with screenshots /demos of its functionality and real word experiences implementing the OBIEE / OBIA.