ORACLE DATA INTEGRATOR ENTERPRISE EDITION FOR BUSINESS INTELLIGENCE

KEY FEATURES AND BENEFITS

- (E-LT) architecture delivers highest performance.
- Integrated metadata for alignment between Business Intelligence and Data Integration systems
- Declarative design improves user productivity.
- Knowledge Modules provide modularity, flexibility, and extensibility.

FUNCTIONALITY:

- Supports all transformations and data controls on disparate systems.
- Performs complex joins between tables, aggregations, and complex calculations.
- Controls data integrity on the fly while data is processing.
- Designs and deploys the integration infrastructure quickly and easily, with little or no programming.
- Works with third-party name and address cleansing and matching tools.
- Provides strong metadata features including dependency graphs, cross-referencing, and impact analysis reports.
- Automatically implements Changed Data Capture on the source systems.
- Accesses and integrates all database systems, ERPs and CRMs, B2B systems, flat files, LDAP repositories, and XML data sources.
- Integrates into a service-oriented architecture and provides automatically generated data services.
- Generates native code for distributed database engines and coordinates their work.
- Executes the complete integration process, from data transformation and transfer to error recovery and reporting.

Actionable Business Intelligence (BI) is more important than ever. Increasingly, companies rely on these BI systems for mission-critical decisions and planning. However, without consistent data which is accurate, up-to-date, and in sync these BI systems are unable to deliver their promised benefits. Oracle Data Integrator Enterprise Edition works with Business Intelligence systems to supply unparalleled performance, ease-of-use and access to data throughout the most complex businesses.

ODI-EE Solves Today's Challenges for BI

Business Intelligence systems are only as good as the data they present. All too often a BI implementation suffers from information inaccuracy, obsolete data, or out-of-sync warehouses. But when paired with a comprehensive data integration solution, the Business intelligence systems reach their fullest potential.

ODI-EE is a comprehensive data integration platform that handles any data integration requirements—high-volume, high-performance batches, event-driven, trickle-feed integration processes, and SOA-enabled data services.

ODI-EE is pre-integrated with the following Oracle BI systems:

- Oracle Business Intelligence Enterprise Edition Suite Plus
- Oracle Business Intelligence Applications
- Oracle | Hyperion Planning
- Oracle | Hyperion Financial Management
- Oracle | Hyperion Essbase
ODI-EE for Business Intelligence

ODI-EE is a standalone product and also part of the Oracle Data Integration Suite (ODI Suite). Both ODI-EE and ODI Suite come with easy-to-use and powerful features for enabling high-performance Business Intelligence.

Figure 2: ODI Suite has an optimized deployment with Oracle BIEE Suite

Oracle Data Integration Suite can work with any Business Intelligence system, but it is especially optimized to work with Oracle Business Intelligence Suite (OBIEE Suite). A few of those specific optimizations include:

- Report to Source Lineage – easily drill back from your dashboard to data details about where it came from and which transforms were applied
- Data Warehouse Optimizations – OBIEE Suite and ODI Suite leverage optimized SQL and native DB Utilities for heterogeneous Data Warehouse systems like Oracle RAC, Teradata, Netezza and DB2
- Process and Workflow Components – leverage Business Processes from OBIEE Suite and ODI Suite with the same Oracle BPEL Process Manager orchestration engine and workflow engine
- Deployment Optimizations – using ODI Suite with OBIEE Suite can reduce the required hardware by 75% and setup time by 50%

OID-EE is the ideal solution for Oracle Business Intelligence because it is the highest performance data integration engine and because it is heavily optimized for the Oracle BI technology footprint.
ODI-EE for Enterprise Performance Management

ODI-EE and Oracle Data Integration Suite come with easy-to-use and powerful features for enabling ultra-fast Enterprise Performance Management (EPM) solutions. Capable of working natively with Oracle Hyperion program interfaces, the ODI-EE and ODI Suite solutions have the fastest possible data integration capabilities with the Oracle Hyperion applications and tools.

Oracle Hyperion Planning
Oracle Hyperion Financial Mgt.
Oracle Hyperion Essbase

Oracle | Hyperion Data Access
- Authentication
- Data Services
- Logging Services
  API Layer

Oracle Data Integration Suite
- Data Distribution & Delivery APIs
  - Metadata Lineage
  - Bulk/Trickle Loading
  - Changed Data Capture
  - Master Data
  - Data Quality & Profiling

ODI Knowledge Module Framework

Information Assets

Figure 3: ODI Suite is the preferred data integration solution for Hyperion

Oracle Data Integrator is included as a restricted use component with Oracle Hyperion Planning and Oracle Hyperion Financial Management. ODI-EE comes with the following native capabilities for Oracle Hyperion applications and tools:

<table>
<thead>
<tr>
<th>Metadata Discovery &amp; Model Creation</th>
<th>Hyperion Planning</th>
<th>Hyperion Financial Management</th>
<th>Hyperion Essbase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extract Data</td>
<td>Use Essbase HM</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Extracts Dimension Members</td>
<td>Use Essbase HM</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Loads Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Loads Dimension Members</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Other Features</td>
<td>Cube Refresh</td>
<td>Consolidate</td>
<td>Calculate</td>
</tr>
</tbody>
</table>

Figure 4: Native ODI-EE features for Oracle | Hyperion
E-LT Architecture for High Performance

ODI-EE’s Extract, Load, Transform (E-LT) architecture leverages disparate relational database management systems (RDBMS) engines to process and transform the data. This approach optimizes performance and scalability and lowers overall solution costs.

Figure 5: The E-LT architecture leverages source and target systems for data integration.

Instead of relying on a separate, conventional ETL transformation server, ODI-EE’s E-LT architecture generates native code for disparate RDBMS engines (SQL, bulk loader scripts, for example).

E-LT architecture extracts data from sources, loads it into a target, and transforms it using the database power. By leveraging existing databases and database expertise, ODI-EE provides unparalleled efficiency and lower cost of ownership. By reducing network traffic and transforming data in the database containing the target tables, E-LT architecture delivers the highest possible performance.

Realtime Data Integration

Oracle Data Integration Suite turns the promise of active integration into reality by providing all key components required to enable real-time data warehousing and operational data hubs. Additional native hooks to Oracle SOA Suite provide comprehensive and hot-pluggable (working seamlessly with existing systems) data services integration.

ODI-EE combines three styles of data integration: data based, event based, and service based. ODI-EE unifies silos of integration by transforming large volumes of data in batch, by processing events in real time through its advanced Changed Data Capture, and by providing data services to the Oracle SOA Suite. All integration processes provide robust data integrity controls which guarantee the consistency and correctness of data on the fly.
Declarative Design Improves Developer Productivity

ODI-EE shortens implementation times with its declarative design approach. Designers specify what they want to accomplish with their data, and then the tool generates the details of how to perform the task.

Unlike conventional ETL design, with ODI-EE, the business user or the developer specifies the rules to apply to the integration processes. The tool automatically generates data flows, manages their complexity, and administers the correct instructions for the various source and target systems.

With declarative design, the number and complexity of steps is greatly reduced, which in turn shortens implementation times. Automatic code generation reduces the learning curve for integration developers and streamlines access by non-IT professionals to the definition of their integration processes and data formats.

Knowledge Modules Provide Flexibility and Extensibility

Knowledge Modules are at the core of the ODI-EE architecture. They make all ODI-EE processes modular, flexible, and extensible.

Knowledge Modules implement the actual data flows and define the templates for generating code across the multiple systems involved in each process. Knowledge Modules are generic, because they allow data flows to be generated regardless of the transformation rules. And they are highly specific, because the code they generate and the integration strategy they implement are finely tuned for a given technology. ODI-EE provides a comprehensive library of Knowledge Modules, which can be tailored to implement existing best practices (for example, for highest performance, for adhering to corporate standards, or for specific vertical know-how).

By helping companies capture and reuse technical expertise and best practices, ODI-EE’s Knowledge Module framework reduces the cost of ownership. It also enables
metadata-driven extensibility of product functionality to meet the most demanding data integration challenges.

**KEY BENEFITS:**

- E-LT architecture leverages diverse RDBMS engines to process and transform data, optimizing performance and scalability and lowering overall solution cost.
- Turns Active Integration into reality by providing all key components required for real-time data warehousing and operational data hubs, and by plugging into Oracle SOA Suite for comprehensive integration.
- Declarative design shortens implementation times by insulating the business rules from the data flow implementation and by accelerating maintenance.
- Knowledge Modules drive modularity, flexibility and extensibility of all integration processes.

**Sample of available Knowledge Modules:**

| General SQL DB | Teradata V2R5.0 |
|Oracle DB 9i | Teradata V2R6.0 |
|Oracle DB 10g | Teradata R12 |
|Oracle DB 10g EX | Netezza Performance Server 2.x |
|Oracle DB 11g | Netezza Performance Server 3.x |
|IBM DB2/390 | Netezza Performance Server 4.x |
|IBM DB2/400 | Hyperion Essbase |
|IBM DB2/UDB | PostgresSQL 8.1 |
|IBM Informix SE | MySQL 4.0 |
|IBM LDAP Server | MySQL 5.0 |
|MS SQL Server 2000 | Oracle BI Suite 10g |
|MS SQL Server 2005 | Oracle BAM 10g |
|MS SQL Server 2005 SE | Oracle Internet Directory 9i |
|MS Office Access 2000 | OpenLDAP 2.3 |
|MS Office Excel 2000 | Oracle Siebel CRM 7.8 |
|MS Active Directory | Oracle JD Edwards |
|Sybase ASA 8.x & 9.x | Oracle PeopleSoft |
|Sybase ASE 11.9 & 12.5 | Oracle E-Business Suite |
|Sybase IQ 12.x | Oracle AQ 10g |
|Sonic MQ V7.0 | Oracle SOA Suite / ESB 10g |
|SAP ERP and BW | SalesForce.com AppExchange |

**More About ODI-EE**

Today Oracle includes Oracle Data Integrator and Oracle Warehouse Builder Enterprise ETL, formerly an add-on option to Oracle Database, as the two components of ODI-EE. Going forward, these products will merge into a single unified data integration technology platform. This strategy fully preserves any existing development investments of all Oracle data integration customers and will provide a seamless, easy upgrade path from the current components to the unified platform. Customers can safely choose either component as the basis for implementations today. For further advice on the implementation choices, please contact your Oracle sales representative.

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