ORACLE GOLDENGATE KNOWLEDGE MODULES FOR ORACLE DATA INTEGRATOR

ORACLE DATA INTEGRATOR
ENTERPRISE EDITION
OFFERS LEADING
PERFORMANCE, IMPROVED
PRODUCTIVITY, FLEXIBILITY
AND LOWEST TOTAL COST
OF OWNERSHIP

ORACLE GOLDENGATE
OFFERS LOW-IMPACT
CAPTURE, ROUTING,
TRANSFORMATION, AND
DELIVERY OF CHANGE DATA
ACROSS HETEROGENEOUS
SYSTEMS IN REAL TIME. THE
SOFTWARE HELPS
ORGANIZATIONS ACHIEVE
CONTINUOUS AVAILABILITY
AND REAL-TIME
INTEGRATION FOR THEIR
MISSION-CRITICAL DATA

INTEGRATION BENEFITS

- Cuts hardware costs through improved utilization and high-performance data integration
- Unifies data-based, event-based, and service-based integration in a single solution
- Lowers total cost of ownership and by maximizing designer productivity
- Open, 100% Java, SOA, Standards based
- Enhance decision-making with real-time data
- Increase IT flexibility with heterogeneous infrastructure support
- Enable high-performance data replication with minimal impact on production systems
- Ensure transactional integrity across heterogeneous source and target systems

Oracle Data Integrator Enterprise Edition (ODI-EE) delivers market leading high-performance data movement and data transformation using E-LT technology. Oracle GoldenGate provides market leading real-time, log-based change data capture, and delivery between heterogeneous systems. The two combined technologies offer the fastest real-time data integration solution on the market. This datasheet outlines the recommended integration mechanisms offered as part the Oracle GoldenGate Knowledge Modules for ODI-EE – pluggable logic which provides a seamless integration between the two products.

About Oracle Data Integrator Enterprise Edition

Oracle Data Integrator Enterprise Edition is a comprehensive data movement, data access, and data transformation solution that supports integration of data across complex enterprise architectures. Oracle Data Integrator Enterprise Edition helps organizations swiftly load their BI/ Data Warehouses as well as provide a rich set of re-usable data services to integrate applications through a service oriented architecture (SOA).

Oracle Data Integrator Enterprise Edition'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.

Instead of relying on a separate, conventional ETL transformation server, Oracle Data Integrator Enterprise Edition'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 optimizations of the database.

About Oracle GoldenGate

Oracle GoldenGate provides real-time capture, transformation, routing, and delivery of database transactions across heterogeneous systems. The software facilitates high-performance, low-impact data movement with subsecond latency to a wide variety of databases and platforms while maintaining transaction integrity. Oracle GoldenGate leverages a component-based architecture to help companies address the continuous availability and real-time integration demands of enterprise systems.

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Oracle GoldenGate captures and delivers real-time change data to data warehouses, operational data stores, reporting systems, and other online transaction processing (OLTP) databases with minimal performance impact. This access to real-time information enables improved access to real-time information for real-time data warehousing, operational reporting and operational data integration.

- **Real-time data warehousing.** Provide continuous, real-time capture and delivery of the most-recent change data between OLTP systems and the data warehouse.

- **Operational reporting.** Offload reporting activity from production databases to lower-cost secondary systems with current data for real-time reporting.

- **Operational data integration.** Integrate operational data between OLTP systems in real time. Enable service-oriented architectures, including Oracle SOA Suite, to operate with real-time data by publishing changed data via Java Message Service (JMS) using Oracle GoldenGate Application Adapters.

Understanding ODI-EE Knowledge Modules

At the core of the ODI-EE's architecture are Knowledge Modules. They enable modular, flexible, and extensible integration components to extend the functionality of ODI-EE.

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. Oracle Data Integrator Enterprise Edition 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, Oracle Data Integrator Enterprise Edition'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.

Behind the Oracle GoldenGate Knowledge Modules for ODI-EE

By using a Knowledge Module approach, ODI-EE and Oracle GoldenGate can be integrated together to provide greater optimization and extensibility. Specifically the Oracle GoldenGate KMs for ODI-EE enable ODI-EE to leverage the power of Oracle GoldenGate for its real-time CDC. This gives users the following technical benefits:

- Eliminates the overhead for using database API or the invasiveness of extracts on the source systems.

- Automates Oracle GoldenGate deployment directly from using a single

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graphical user interface.

- Provides a common best practice pattern loading operational stores or data warehouses in 'mini-batch'

Heterogeneous Connectivity

Oracle Data Integrator Enterprise Edition supports all leading data warehousing platforms, including Oracle Database, Oracle Exadata, Teradata, Netezza and IBM DB2. This is complemented by the Oracle GoldenGate architecture, which decouples source and target systems, enabling heterogeneity of databases as well as operating systems and hardware platforms. Oracle GoldenGate supports a wide range of database versions for Oracle Database, SQL Server, DB2 z/Series and LUW, Sybase ASE, Enscribe, SQL/MP and SQL/MX, Teradata running on UNIX, Windows, and HP NonStop platforms. It can deliver data to any data warehouse running on an ODBC-compliant database, including Oracle Exadata, Teradata, Netezza, and Greenplum. Companies can quickly and easily add new or different database sources and target systems to their configurations by simply adding new Capture and Delivery processes.

Key Benefits of the Solution

The combination of Oracle Data Integrator Enterprise Edition and Oracle GoldenGate provides the following features and benefits that enable customers to rapidly move transactional data between enterprise systems:

Real-time data. Immediately capture, transform, and deliver transactional data to other systems with subsecond latency. Improve organizational decision-making through enterprise-wide visibility into accurate, up-to-date information.

Heterogeneous. Utilize heterogeneous databases, packaged or even custom applications to leverage existing IT infrastructure. Leverage Knowledge Modules to speed up the implementation time. Extract data from existing IT investments and lower your total cost of ownership while unifying data from all enterprise systems.

Reliability. Deliver all committed records to the target, even in the event of network outages. Move data without requiring system interruption or outage windows.

High performance with low impact. Move thousands of transactions per second with negligible impact on source and target systems. Transform data at high performance and efficiency using E-LT. Access critical information in real time without bogging down production systems.

Productivity. Maintain transaction commit boundaries and atomicity, consistency, isolation, and durability (ACID) properties as transactions are moved between source and target systems. Ensure data consistency and referential integrity across multiple masters, back-up systems, and reporting databases.

Does Oracle GoldenGate replace ODI-EE?

No. GoldenGate excels at real time data movement. ODI-EE excels at data transformation and bulk data movement. To achieve the best transformation performance with the best real time performance, we recommend customers

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RELATED PRODUCTS

- Oracle GoldenGate
- Oracle Enterprise Data Quality
- Oracle Data Service Integrator
- Oracle Business Intelligence
- Oracle SOA Suite
- Oracle Database
- Oracle Data Warehousing
- Oracle Master Data Management

RELATED SERVICES

The following services are available from Oracle Support Services:

- Update Subscription Services
- Product Support Services

consider both solutions together.

How does Oracle GoldenGate complement ODI-EE?

GoldenGate supplies a non-invasive source side capture of database transactions, ensures a fast delivery of transactions to one or more replication processes, and finally ensures transactional consistency at every step of the process.

How do I get the KMs?

The KMs are currently available as part of ODI-EE 11*g* and work with Oracle GoldenGate version 10.4.x or higher.

Which databases are supported?

The Oracle GoldenGate KMs support the following databases:

- Source: Oracle, Microsoft SQL Server, IBM DB2 UDB, Sybase ASE

- Target: Oracle, Teradata

Contact Us

For more information about Oracle Data Integrator Enterprise Edition or Oracle GoldenGate, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

Oracle is committed to developing practices and products that help protect the environment

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