ORACLE DATA INTEGRATOR CDC WITH ORACLE GOLDENGATE

KEY FEATURES AND BENEFITS

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

Oracle Data Integrator Enterprise Edition (ODI-EE) delivers market leading high-performance data movement and data transformation using E-LT technology. Oracle GoldenGate provides real-time, log-based change data capture, and delivery between heterogeneous systems. Using this technology, it enables cost-effective and low-impact real-time data integration and continuous availability solutions. The two combined offer the fastest real-time data integration solution on the market. This datasheet outlines the recommended integration mechanism offered as part of the ODI-EE Knowledge Module for Oracle GoldenGate.

About Oracle Data Integrator Enterprise Edition

Oracle Data Integrator Enterprise Edition (ODI-EE) is a comprehensive data movement, data access, and data transformation solution that supports integration of data across complex enterprise architectures. ODI-EE 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).

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.

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 optimizations of the database.

About Oracle GoldenGate

Oracle GoldenGate provides real-time, log-based capture, routing, transformation, and delivery of database transactions across heterogeneous systems. The software facilitates high-performance, low-impact change 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.

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 unique technology enables continuous 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. Oracle GoldenGate integrates easily with ODI-EE and other extract, transform, and load (ETL) solutions.
- **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. By deploying Oracle GoldenGate Application Adapters for Java Message Service (JMS), in conjunction with Oracle GoldenGate, organizations can publish changed data from heterogeneous transaction processing or analytical systems to enterprise service bus solutions, including Oracle SOA Suite, to support service-oriented architecture (SOA) and enable event-driven architectures (EDAs).

Understanding ODI-EE Knowledge Modules

Extensibility is at the core of the ODI-EE's Architecture. Specifically, ODI-EE's Knowledge Modules enable a modular, flexible, and extensible approach to extend the functionality for data movement, transformation and even change data capture.

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.

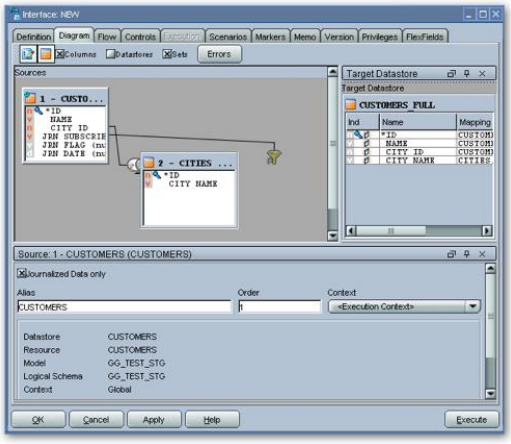

Figure 1: Shows the ODI-EE interface with the Oracle GoldenGate CDC

Behind the ODI-EE Knowledge Module for Oracle GoldenGate

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

- Reduces the invasiveness of extracts on the source systems via log-based change data capture
- Minimizes the overhead on source systems
- Automates Oracle GoldenGate deployment directly from using a single UI, eliminates manual entry of config files.
- Provides a common best practice pattern loading operational stores or data warehouses in 'mini-batch' to remove batch window dependency.
- Enables transformations at the row-level during data capture or delivery, as well as high performance set-based transformations within the target database
- Improves recoverability of data by persisting changed data

Heterogeneous Connectivity

ODI-EE supports all leading data warehousing platforms, including Oracle Database, 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 Linux, Solaris, UNIX, Windows, and HP NonStop platforms as well as many data warehousing appliances including Oracle Exadata, Teradata, Netezza, and Greenplum. Companies can quickly and easily involve new or different database sources and target systems to their configurations by simply adding new Capture and Delivery processes.

RELATED PRODUCTS AND SERVICES

RELATED PRODUCTS

- Oracle GoldenGate
- Oracle Data Quality for Data Integrator
- Oracle Data Service Integrator
- Oracle Data Profiling
- 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

Key Capabilities of the Solution

ODI-EE and Oracle GoldenGate combined enable you 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. Use Knowledge Modules to speed the time of implementation. 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 batch windows. Ensure data consistency and referential integrity across multiple masters, back-up systems, and reporting databases.

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.

Does Oracle GoldenGate replace ODI-EE?

No. Oracle 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 data movement performance, we recommend customers consider both solutions together.

How does Oracle GoldenGate complement ODI-EE?

Oracle 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.

What Versions are Supported?

The KM is currently supported on ODI-EE 10.1.3.6 or higher

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.

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