ORACLE DATA INTEGRATOR FOR THE TERADATA ENVIRONMENT

MEETING THE DATA INTEGRATION NEEDS OF THE ENTERPRISE

Companies worldwide need to extract greater returns from their expanding data volumes. Increasingly, such firms realize the need to support business objectives by managing, storing, and processing their data—whether structured, unstructured, or multi-structured—on the Teradata® Workload-Specific Platform.

Oracle® Data Integrator works in concert with the Teradata Unified Data Architecture,™ an integrated solution leveraging the complementary capabilities of Teradata, Teradata Aster,® and open source Hadoop. These technologies' joint capabilities provide the competitive edge associated with a single view delivered through alignment of the appropriate technology to the specific analytic need.

The innovative extract-load and transform (E-LT) approach of Oracle Data Integrator allows you to forgo expensive, proprietary ETL engines required for mid-tier data transformations. Instead, you can use the flexibility of the Teradata Unified Data Architecture (UDA) and the Teradata, Teradata Aster or the Hortonworks Hadoop databases to complete your data transformations. Data is loaded and processed on the UDA platform delivering improved data load performance within the Teradata solution, as well as scalability and availability at a fraction of the cost.

THE DIFFERENCE

When transferring data from one location to another, the traditional ETL approach requires a proprietary engine to complete a row-by-row data transformation before loading the data into a target repository.

The problem is that the centralized ETL hub server can cause expensive and time-consuming bottlenecks. In contrast, Oracle Data Integrator's innovative extract-load and transform (E-LT) approach loads data directly from all sources into the target platform (Teradata, Teradata Aster or Hortonworks Hadoop) which then executes all transformations in bulk using native capabilities.

Here's how it works. Leveraging Oracle Data Integrator's declarative design, users specify rules to apply to the integration processes. Oracle Data Integrator then automatically generates data flows, manages the complexity,

helps create transformation interfaces in a graphical environment, and generates the native SQL-based instructions for the platform to execute the transformation. Throughout the process, Oracle Data Integrator takes advantage of all the native features and utilities of the Teradata UDA.

This process dramatically reduces the number and complexity of steps in any data transformation process. In addition, automatic code generation shrinks the learning curve for integration developers and streamlines the definition of integration processes and data formats by non-IT professionals.

KNOWLEDGE MODULES CREATE FLEXIBILITY

Knowledge modules are the core of Oracle Data Integrator, because they implement the actual data flows and define the templates for generating code across systems.

These knowledge modules are both generic and highly specific. On the one hand, they allow you to generate data flows regardless of the transformation rules. On the other hand, the code they generate and the integration strategy they implement are finely tuned for any given technology. Oracle Data Integrator provides a comprehensive library of knowledge modules that you can tailor to implement existing best practices for such things as highest performance, adherence to corporate standards, and specific industry know-how.

Moreover, the knowledge modules for Teradata, Teradata Aster, and Hortonworks Hadoop enable you to use native capabilities to load and transform data not only into, but within the UDA. This supports data quality control, as well as integration strategies such as incremental update and Type 2 slowly changing dimensions.

BENEFITS

There are numerous benefits of combining these platforms with Oracle Data Integrator. Most prominently:

~ The E-LT architecture leverages diverse data management engines to process and transform data, optimizing performance and scalability and lowering overall solution cost.

~ Oracle Data Integrator provides all key components for real-time data warehousing and operational data hubs, and plugs into the Oracle Service Oriented Architecture Suite.

~ Declarative design shortens implementation times by insulating the business rules from the data flow implementation and accelerating maintenance.

~ Integration processes are enhanced through the flexibility and extensibility of the Oracle Data Integrator Knowledge Modules.

IT teams performing E-LT transformations with Oracle Data Integrator immediately realize the advantages of features such as metadata management, one-click complex transformation, automatic data quality control, and an intuitive graphic interface. These features reduce the total cost of ownership of your Teradata, Teradata Aster, and Hortonworks Hadoop platform and enable you to rapidly and cost-effectively meet the most-demanding data integration challenges.

FOR MORE INFORMATION

To learn more about how you can use the Oracle Data Integrator to speed your Teradata implementation—and reduce costs—contact your Teradata representative or visit **Teradata.com/Partners/Oracle-Corporation.**

TERADATA UNIFIED DATA ARCHITECTURE

INTEGRATION AND GOVERNANCE

MOVE | MANAGE | ACCESS

ORACLE DATA INTEGRATION

DATA PLATFORM

TERADATA DATABASE

TERADATA PORTFOLIO FOR HADOOP

INTEGRATED DATA WAREHOUSE

TERADATA DATABASE
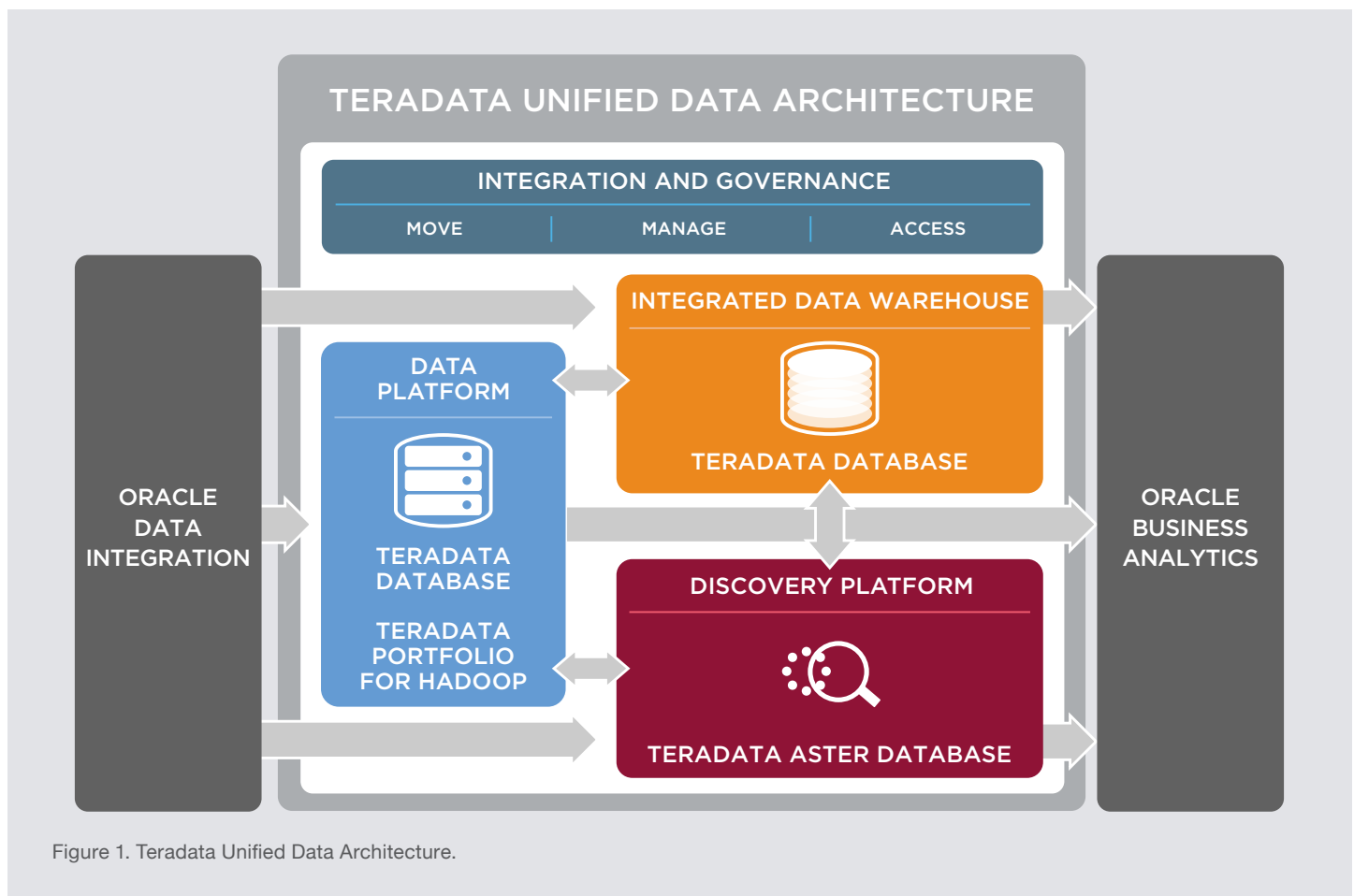
DISCOVERY PLATFORM

TERADATA ASTER DATABASE

ORACLE BUSINESS ANALYTICS

Figure 1. Teradata Unified Data Architecture.

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TERADATA