

# Oracle to Teradata Solution Migration Service

## Build Business Advantage into Your Data Warehouse – and Ensure Success

Your operational infrastructure may meet your needs for managing your company's huge transaction volume. But, success in an operational environment doesn't always translate into the analytical capability you need to attain competitive business advantages.

Many organizations have realized that their OLTP database management system can't perform the high-volume analytic tasks required of today's successful data warehouse. What's their solution? Extend the benefits of their Oracle® operational environment with a Teradata solution. Our Oracle to Teradata® Solution Migration Service integrates Teradata Database into your existing Oracle operational environment and allows you to reap the benefits of analyzing centralized, integrated detailed data.

## A Proven Path to Success

Data warehouse consultants from Teradata Corporation follow a proven, flexible methodology to successfully migrate applications and data from an Oracle data warehouse or data marts to a Teradata solution. This time-tested process includes tools, scripts, examples, and checklists that reduce the time needed to complete the migration. It also establishes the process for regular data feeds to the warehouse from the source system based on Oracle or other database systems.

### Phase One: Initial Business Assessment

This assessment examines your overall business goals, as well as your existing environment. This phase includes a quick assessment – usually from one to three days – of the project scope. The assessment includes tasks such as analyzing the existing Oracle data marts or warehouse, and results in a quick estimate of project timelines, effort, and scope.



### Phase Two: Migration Planning and Development

The second phase of the migration is a much more in-depth analysis of your existing environment. This complete assessment can take a few days to a week depending on the size and number of your systems. We have specific, time-tested tools that allow us to accurately estimate the time and effort needed in any conversion project. In this analysis phase, with your help, we'll answer specific questions that give insight into project scope, and then input those data into our estimation tool. This provides you with a quick, accurate assessment of the time and effort involved in the conversion.

Some of the analyses we do during this phase include:

- > Capture the current environment, including architecture, organization structure, your data warehouse vision, and business and IT objectives.
- > Assess IT and business users' skill levels.

### By migrating from Oracle to Teradata you can:

- > **Improve your data warehouse scalability and performance.**
- > **Reduce maintenance costs and simplify systems by reducing 50% or more of your lines of code.**
- > **Reduce maintenance and simplify your architecture by eliminating 70% or more of your job steps.**
- > **Cut overall load times in half.**
- > **Increase query concurrency by eight times or more.**
- > **Increase ad-hoc query performance by ten times or more.**
- > **Enable data warehousing in real time.**

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- > Evaluate the approaches for the migration. Techniques include 1:1 migration, redesign to normalized data structure, and an evolutionary approach.
- > Evaluate the current data model.
- > Evaluate the current ETL method.
- > Estimate application migration needs.

At this time, we'll work with you to determine the correct migration method and approach that best meets your company's business vision for the data warehouse and your business and technical objectives. Once this is done, we'll create a specific project plan using our patented Teradata Solutions Methodology and at the same time, initiate specific resource planning. At the end of the Migration Planning/Development phase, you'll receive a detailed proposal, a statement of work, and a project plan.

To identify training requirements, Teradata consultants must also understand your IT and business users' skill levels so that you can quickly transition to a Teradata environment.

## Phase Three: Migration Implementation

During this phase, Teradata consultants migrate the database, operations, and applications used in your Oracle data warehousing environment to Teradata Database. Using a detailed plan developed in the previous Migration Planning/Development phase and the statement of work, they'll begin actual migration implementation through a distinct sequence of events:

## Data Migration

To migrate the data from your Oracle system to Teradata Database, we use our specialized Oracle to Teradata migration tool, Teradata Migration Accelerator. This tool extracts data quickly from your existing Oracle system, does automatic data type conversion and mapping, creates all new tables and objects on the new Teradata system, as well as loads all data with Teradata load utilities. The Oracle data model can be migrated as it exists. However, some companies redesign their data model prior to the migration; the implementation of the redesigned data model occurs during this phase.

## Application Migration

Teradata offers the flexibility to migrate a range of applications efficiently, including those that use proprietary Oracle PL/SQL, third-party software, and various application interfaces such as ODBC and JDBC. Teradata Migration Accelerator is leveraged to automatically convert PL/SQL, Oracle SQL, and SQL+ scripts into Teradata SQL and stored procedures, as well as Teradata BTEQ scripts.

## Post Migration: Sourcing Data from Operational Systems to Teradata Database

Once the data from your existing Oracle data warehouse have been migrated to Teradata Database, data from your operational systems must be loaded directly into Teradata Database. The actual Extract, Transform, and Load tools and utilities that will be used – whether the process is automated or manual – depend on a thorough analysis of your existing environment. This analysis includes:

- > What is the current source system?
- > How are data being loaded into the existing Oracle data warehouse? Are Oracle utilities being used?
- > What is the current method of ETL to the Oracle data warehouse?
- > Is a tool currently being used, and if so, how?
- > What are the advantages or disadvantages of using this tool with Teradata Database?
- > What changes must be made to the tool and processes for them to work with Teradata Database?

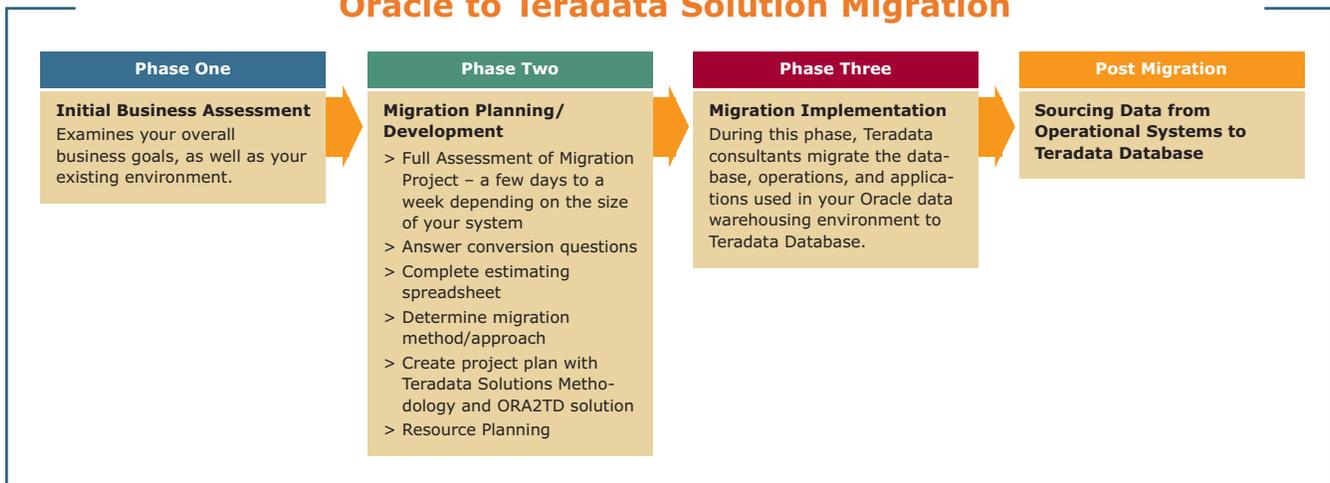
Runtime Improvement	Factor
3.5 hours down to 2 min	105X
7.5 hours down to 5 min	90X
2 hours down to 2 min	60X
8 hours down to 2 min	240X
11 hours down to 1 min	660X

Sample post-migration performance results from Intercontinental Hotels Group.

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- > What is the window of time to update the data warehouse? How often must the data be refreshed?
- > What quantity of data is being loaded to the data warehouse – per hour, per day, per week, per month (average and peak)?

### A Migration Example

A simple ETL approach for taking data from Oracle into a Teradata solution might include:

- > Reusing the current ETL process as appropriate.
- > Intercepting flat files meant for the SQL\*Loader to use with Teradata Database parallel loading utilities without redesigning the data extract process.
- > Developing custom applications or using tools from industry-leading ETL vendors to transform and load data to target tables.
- > Loading data using Teradata Parallel Transporter to staging tables that leverage Teradata Database's inherent parallel architecture for transformation.
- > Using Teradata Parallel Transporter for record-level updates to support continuous data feed to the data warehouse.
- > Evaluating the current ETL process to provide an improvement recommendation.
- > Using the Teradata Migration Accelerator migration tool or inexpensive partner tool WisdomForce Technologies FastReader for simple data migrations.

### Get What You Need

Choose the architecture that supports your business. Don't compromise because your current system isn't suitable for data warehousing. A Teradata solution offers the performance; scalability; lower cost of maintenance; the ability to ask unlimited business questions; analytical insight; data freshness; a single, integrated view of your business; and the flexibility to grow along with your needs. With the Oracle to Teradata Solution Migration Service, Teradata can get you to where you want to be quickly and efficiently.

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