

TERADATA DATABASE 14.10: RAPID RESPONSE TO MEET YOUR BUSINESS NEEDS

BECAUSE PERFORMANCE COUNTS

The success of your data warehouse has always rested on the performance of your database engine. But as your data requirements grow increasingly complex, performance becomes more vital than ever. So does finding a faster, simpler way to manage your data warehouse. You can find that combination of unmatched performance and efficient management in the Teradata® Database.

THE TERADATA DATABASE DIFFERENCE

Your data warehouse solution depends on its database engine. So make sure the database you select offers:

- ~ Effortless scalability through fully parallel operation.
- ~ Mission-critical availability.
- ~ Complex and ad-hoc query performance.
- ~ In-database advanced analytics, including geospatial, temporal, data mining, and modeling.
- ~ Mixed workload management (ability to keep data current and handle strategic, tactical, and operational queries).
- ~ Columnar.
- ~ Cost-based optimizer.
- ~ Intelligent Memory.
- ~ Virtualized interconnect.
- ~ Virtualized storage.
- ~ Virtualized CPU.
- ~ File system.
- ~ Ease of manageability.
- ~ Simplified mainframe integration.
- ~ Complete support infrastructure.
- ~ Reference accounts.
- ~ Lowest total cost of ownership.

In fact, we've enhanced the Teradata Database to provide you and your business with new features and functions for even higher levels of performance and efficiency, features that speed the response to complex queries, enable additional sophisticated in-database analytics, and access to data on Hadoop and Oracle database systems for inclusion in query processing using Teradata SQL-H™ and Unity Source Link. In addition, the enhanced release 14.10 of Teradata Database includes Teradata Intelligent Memory for in-memory-like performance without the cost. Teradata Intelligent Memory takes advantage of the larger memory capacity of the newest hardware platforms to create an extended memory space and automatically keep the most frequently used, or hottest, data in memory. With no query or application changes, the hottest data is automatically kept in memory for rapid use in query processing without performance delays caused by over-burdened disk I/O.

This proven, high-performance decision-support engine, available on the Teradata Workload-Specific Platform Family, offers you a full suite of data access and management tools, plus world-class services based on Teradata's years of data warehouse experience. It's a unique combination of products and expertise that provides a time-tested data warehousing solution—a solution that delivers many business advantages to you and your company.

Already the foundation of the world's most successful data warehouses, Teradata Database is designed for decision support and parallel implementation. And it's as versatile as it is powerful. It supports hundreds of installations, from fewer than ten gigabytes to huge warehouses with petabytes (PB) of data and thousands of users. Teradata Database's inherent parallelism and architecture provide more than pure performance. It also offers low total cost of ownership (TCO) and a simple, scalable, and self-managing solution for building a successful data warehouse.

AN ARRAY OF POWERFUL ANALYTICS

When it comes to powerful analytics, Teradata Database is unmatched. That's because it's optimized to offer a range of analytical capabilities, everything from geospatial and temporal to slice-and-dice and data mining. The result? You can extract more value from your data, from more parts of your business, than ever. Plus, you can perform both general-purpose and specialized analyses in a database where all of your supporting data are available to enrich your analytical processes.

And Teradata Database includes a variety of built-in features that makes it faster and more efficient to run a wider scope of analytical processes, features that let you:

- ~ Store and process geospatial data. With Teradata Database, your business intelligence (BI) and other applications can use location and proximity along with all the data dimensions you're used to. Unlike specialized GIS or geospatial visualization products, Teradata Database can analyze geospatial data inside the data warehouse. That means all your enterprise data are available. In addition to common geospatial capabilities, Teradata Database allows you to store a series of points with timestamp information to understand and analyze movement tracked by GPS or other means.
- ~ Easily maintain and base analyses on the changes in your business data. The temporal option available with

Teradata Database helps you cut through the costly, complicated, and time-consuming effort needed to keep pace with changes in your business.

It replaces manual processes with automatic history-tracking capabilities. For example, a retailer can easily recategorize a product—frozen dessert to ice cream—and answer critical point-in-time business questions such as: How many customers did we have on a specific date? How many product categories? And how did our frozen dessert sales compare to the same month last year? The temporal option lets you optimize queries with time-based constraints. It also makes it easy to complete compliance reports that accurately reflect what you knew about your business on a certain date. Why? Because you have a full view of your business history readily available with a straightforward query.

- ~ Enhance cube processing, data mining, and modeling. The ease-of-use and optimization features built into Teradata Database save you time and provide increased currency and frequency of those analyses.
- ~ Extend the scope of data stored in the data warehouse and the data used in analyses. Store XML documents natively in the database and directly query the documents for analysis. Issue common SQL queries to the Teradata Database and include joins of data contained in Hadoop databases using Teradata SQL-H and data in Oracle data marts or transaction systems using Teradata Unity Source Link for diverse analyses within the high performance Teradata Database.

“I would love to say that I spend half my time administering the Teradata system. Because when you consider the EDW’s importance to the company, it should be half my time. But the truth is that I spend a lot more time maintaining other databases and performing other aspects of my job than I do working on the Teradata system. Teradata runs so well that it really runs on its own. I don’t spend a lot of time managing it compared to the other databases that I am responsible for. It’s by far the most important and yet it takes the least amount of effort to keep running.”

Sandy Rumble, Data Center and Operations Manager, PING, Inc.

BUILT-IN BUSINESS BENEFITS

Teradata Database delivers benefits that provide a single view of your business, a view that lets you make smarter, faster decisions and realize top- and bottom-line growth. In fact, it will help you:

Extend Decision Support Capabilities

Teradata Database can enable more sophisticated BI analysis by optimizing increasingly complex analytics and simplifying their development. That increased performance gets answers to users faster and processes more work in the same time frame.

Ease Enterprise Integration

Our enterprise extensions allow Teradata Database to fit better with your enterprise infrastructure. We also offer enhanced security and privacy capabilities that meet all consumer and regulatory legislation. And our enhanced accessibility for external sources, targets, and processes enables multiple language data warehouses for global corporations.

Extend the Capabilities of Teradata Database

Each industry, business, and application is unique. Many incorporate unique types of data and analytic functions. Within Teradata Database's high-performance and scalable parallel architecture, you can extend the native capabilities with user-defined types, user-defined functions, user-defined SQL operators, stored procedures, and table operators. Store any type of data your business uses or have a query automatically reach out for data stored in Hadoop or Oracle transaction systems and analyze it with all of the scalability and ease of management you expect from Teradata Database.

“Using certain Teradata features—such as join indexes, partitioned primary indexes, and putting statistics on selected columns—we have reduced the run-time of a report from five minutes to 30 seconds.”

Damian Plueckhahn, Senior Software Advisor,
infrastructure project team leader, and DBA,
St. George Bank

Increase Performance for Operational Workloads

Teradata Database lets you acquire data faster than ever for more effective, timely decisions. We'll show you how to extend the operational use of your data warehouse to more easily support front-line applications and decision makers.

Streamline Mixed Workload Management

Optimize your data warehouse efficiency and improve business responsiveness with streamlined management of mixed workloads that will:

- ~ Automatically define workloads based on business needs.
- ~ Establish service level goals for multiple workload types.
- ~ Develop prioritization strategies according to business rules.
- ~ Separate system resources into virtual partitions for departments, geographic regions, or funding models.
- ~ Monitor adherence to your service level goals.

NEED MORE REASONS TO CHOOSE TERADATA?

Teradata Corporation is the world's leading analytic data solutions company focused on integrated data warehousing, big data analytics, and business applications. Teradata's innovative products and services deliver integration and insight to empower organizations to achieve competitive advantage.

FOR MORE INFORMATION

To learn more about how Teradata Database can help you build a better data warehouse—and a better business—call your Teradata representative, or visit Teradata.com.

TERADATA DATABASE 14.10 SPECIFICATIONS

Database Capacity

- 4.2TB - 117PB
- Up to 2,000 nodes

Data Model

- Relational
- ANSI SQL compatible
- Full query parallelism
- Balanced performance

Architectures Supported

- Symmetric multiprocessing (SMP)
- Massively parallel processing (MPP)
- Cloud

Operating Systems Supported

- Linux

Client Platforms Supported

- Microsoft® Windows®
- Apple Mac OS X
- IBM z/OS MVS
- Most UNIX® platforms
- Linux

Optional Capabilities

- Teradata Temporal
- Teradata Row-Level Security
- Teradata SQL-H™
- Teradata Unity Source Link

Mainframe Integration

- IBM (or compatible) mainframe

Language Preprocessors

- PL/1, C, COBOL

Tools and Utilities

- Teradata Management Portlets
- Teradata Viewpoint (web-based system management portal)
- Teradata Parallel Transporter (unified load utility for continuous, single, or multi-table loads from a variety of sources with script or programmatic controls)
- Teradata TPump (continuous load)
- Teradata FastLoad (data loading)
- Teradata MultiLoad (data loading)
- Teradata FastExport (data extraction)
- Teradata Data Mover (data movement between systems)
- Teradata Geospatial import/export
- Teradata Replication Services (real-time capture and delivery of changed data)
- Teradata Backup Archive and Recovery Solutions
- Teradata Active System Management Portlets (mixed workload management)
- Teradata Analyst Pack, including Teradata Visual Explain, Teradata System Emulation Tool, Teradata Index Wizard, and Teradata Statistics Wizard

- Teradata Utility Pack
- Teradata Warehouse Miner (data mining)
- Teradata Profiler (data quality)
- Teradata Analytic Data Set Generator (data preparation)
- R add-on for Teradata (data mining)
- Teradata Aggregate Designer
- Teradata OLAP Connector for Excel
- Teradata BTEQ (basic query tool)
- Teradata SQL Assistant (basic query tool)
- Teradata SQL Assistant/Java Edition (basic query tool)
- Teradata Studio (query, DBA, and ad-hoc data loading tool)

Application Programming Interfaces

- ODBC Driver for Teradata
- Teradata JDBC Driver
- OLE-DB Provider for Teradata
- Teradata CLI
- .NET Data Provider for Teradata
- Teradata Plug-in for Eclipse
- JMS Adapter (JMS messaging system interface)



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