TERADATA WORKLOAD-SPECIFIC PLATFORM FAMILY

TERADATA

MAXIMIZE YOUR ENTERPRISE INTELLIGENCE

Every business is unique. Each has its own business intelligence or analytical needs. Some are already taking advantage of an active enterprise data warehouse (EDW) environment to quickly move critical business insight to front-line decision makers. Some are consolidating various data marts into an integrated data warehouse, and others are deploying their first data warehouse or purpose-built appliance to meet specific needs.

But every company, including yours, shares some common requirements. Every one needs new and better ways to increase enterprise intelligence. And every one must be able to seamlessly grow their data warehousing capabilities as their business and analytical requirements change.

That's why Teradata Corporation, the world's largest company focused on data warehousing and enterprise analytics, offers a powerful family of workload-specific integrated data warehouse platforms—from entry level to fully active enterprise data warehousing—to meet the business and technical needs of companies everywhere.

END-TO-END SOLUTIONS AND SUPPORT

Each Teradata® Workload-Specific Platform Family member runs Teradata Database, the most robust analytical engine in the industry. The Teradata Database includes advanced capabilities such as hybrid columnar, temporal, and geospatial features while leading the industry with the data temperature-based use of large memory with the Teradata Intelligent Memory. Every platform family member is enterprise ready: with integrated workload management, availability options, robust hardware from industry-leading vendors, a comprehensive backup and restore solution, encryption, almost limitless scalability, and a high-speed system interconnect fabric.

Teradata platforms are scalable, highly available, and reliable. And it's easy to migrate from one platform to another without changing ETL, data models, or underlying structures. Just as important, each platform has the kind of built-in functionality that makes it easy to manage and deliver rapid time to value.

TECHNICAL AND BUSINESS BENEFITS

Each Teradata Workload-Specific Platform Family member is designed to meet your unique business requirements. Specifically built for data warehousing, each member also brings you an array of built-in benefits, including:

Business

- Lets you focus on your business, not technology.
- Delivered ready to run for the fastest time to value.
- Minimizes risk with proven technology, processes, and support.
- Provides highest return on investment.
- Drives lowest total cost of ownership.
- Delivers increased business value with integrated data.

Technical

- Runs the industry-leading Teradata Database.
- Highly scalable.
- Highly available and reliable.
- Easy to migrate from one platform to another without changing ETL, data models, or underlying structures.
- Purpose-built to meet your specific workload needs at a price point you can afford.

The platform family also offers you an end-to-end solution, not just hardware. In addition to Teradata Database, it provides you with the software, tools and utilities, and all the Teradata Professional Services support you need. Teradata also offers specific packages that make getting a data warehouse from Teradata up and running faster and easier than ever. The result: unparalleled opportunity to lower your total cost of ownership and leverage your existing skill sets and resources. The platforms can help streamline your business—and your budget—by replacing legacy systems that require multiple hardware platforms and databases. They can also replace existing single-purpose analytical systems.

TERADATA'S WORKLOAD-SPECIFIC PLATFORM FAMILY

Family Member	DATA MART EDITION	DATA MART APPLIANCE	EXTREME DATA APPLIANCE	DATA WAREHOUSE APPLIANCE	ACTIVE ENTERPRISE DATA WAREHOUSE
Scalability	Up to 6TB	Up to 8TB	Up to 234PB	Up to 21PB	Up to 61PB
Workloads	Test/ Development or Smaller Data Marts	Test/ Development or Smaller Data Marts	Analytical Archive, Deep Dive Analytics	Strategic Intelligence, Decision Support System, Fast Scan	Strategic and Operational Intelligence, Real-Time Update, Active Workloads

CHOOSE THE PERFECT PLATFORM

Whatever your specific data warehousing requirements, there's a Teradata Workload-Specific Platform Family member to meet your needs:

Teradata Active Enterprise Data Warehouse

The Teradata Active Enterprise Data Warehouse (EDW) is the foundation for true active data warehousing. Optimized for strategic and operational mixed workloads, it offers high performance and effortless scalability from 7TB to 61PB of user data. A key technology evolution delivered with the Teradata Active EDW is the use of hybrid storage where Teradata Virtual Storage software leverages both Solid State Drive (SSD) and Hard Disk Drive (HDD) technologies for performance optimization of your data. With hybrid storage, the frequently used hot data are stored on very high-performance SSD devices while the less frequently used cold data are placed on the traditional performance HDD devices.

The performance capabilities of the SSD within hybrid storage enable fast and consistent query response times that support very stringent service level agreements (SLAs) to be met as required in operational workload environments. Unique to Teradata data warehouses, the placement and migration of data based on data temperature is fully automatic with the Teradata Virtual Storage feature.

The Teradata Active EDW provides enterprise concurrency for thousands of users and events in hundreds of applications. It also protects your investment with a proven, unique coexistence capability allowing you to add new generations of platforms to existing systems with full performance thereby virtually eliminating the costly replacement of older technology. The result? The Teradata Active EDW quickly and efficiently puts vital business intelligence into the hands of your front-line users, giving them powerful insight for smarter, faster decision making in real time.

As companies grow, so do their requirements. The Teradata Active EDW drives more concurrent queries, higher availability, increased performance, and enhanced workload management capabilities to support the complex environments of continuous and batch loads, operational queries, simple reporting, and complex analytics, all on the same platform. The Teradata Active EDW is configured and designed to meet these challenging active data warehouse requirements.

Teradata Data Warehouse Appliance

The Teradata Data Warehouse Appliance is ideal for companies that are new to data warehousing or that want to complement an existing data warehouse. For instance, the platform can be used as an integrated data warehouse, a cyclical data mart, or an analytical sandbox for testing applications before their implementation in the EDW. It offers enterprise concurrency with hundreds of users. It can also be used to offload the work associated with applications that are best deployed on a separate platform, but are still dependent on the data within the EDW.

It delivers more complex queries, more concurrent users, and better workload management than other appliances in the market today for best-in-class performance.

The Teradata Data Warehouse Appliance is a cost-effective, fully-integrated, scalable platform with dual twelve-core Intel® Xeon® processors, industry-standard enterprise-class storage, open Novell® SUSE® Linux 64-bit operating system, and Teradata Database and

utilities. All are pre-installed in a single ready-to-run cabinet with energy-efficient green technologies. That means you can have the system up and running live in just a few hours. The Teradata Data Warehouse Appliance also enables scalability up to 21PB. This powerful platform family member is optimized for deep-dive analytical analysis and decision support workloads, making it the ideal platform for data warehousing.

Teradata Extreme Data Appliance

Teradata Extreme Data Appliance is purpose-built to cost effectively analyze extremely large amounts of detailed data—up to 234PB—to gain deep strategic intelligence from all of your data. Now you are able to keep all data within the Teradata Database—with the same format and schema—there is no need to sample or discard data due to storage limitations. Based on the field-proven Teradata platform family technologies, it enables the very same scalability and analytical data warehouse capabilities as the industry has come to expect from Teradata.

This complete, fully-integrated appliance leverages Teradata's technical superiority at the lowest cost per unit of data that matches your volume-based value needs. And this appliance is ready to run. In fact, you can begin loading data and running queries shortly after delivery so you can quickly begin seeing real business value from your investment. What if your requirements change in the future? Since the Extreme Data Appliance runs the same underlying Teradata Database, your data, data models, table structures, user views, queries, and load jobs will all migrate seamlessly across the platform family.

TERADATA GOES GREEN

The entire Teradata Workload-Specific Platform Family leverages energy-efficient processors and cabinet design. For instance, the Teradata Active Enterprise Data Warehouse is eight times more efficient per kilowatt-hour of electricity usage for the same data warehouse capability as compared to Teradata platforms of five years ago. In addition, the Teradata Active Enterprise Data Warehouse requires just 7 percent of the floor space needed for the same capability over older generations. Innovation and thought leadership in sustainability go into each product we design. This is demonstrated by the use of solid state drives which can save up to 50 percent of the energy for data storage devices with lower power per device and far fewer devices to meet performance needs.

Teradata Data Mart Appliance

The Teradata Data Mart Appliance is a departmental data warehouse designed to meet the need for a smaller, less expensive system. It allows you to leverage the power of Teradata Database and utilities on a smaller scale—up to 8TB—at an attractive entry price. The Teradata Data Mart was developed to run multiple applications or be used as a data mart or analytical sandbox. With its hybrid storage capability, it is a cost-effective test and development platform for the Active EDW as it offers similar capabilities, including full Teradata Active System Management (TASM).

It's simple to set up, easy to use, and its fully-integrated design means all components and software are tested and ready to run. While only available as a single node, starting out with this low-priced member of the Teradata Workload-Specific Platform Family enables you to migrate applications and data to more scalable Teradata platforms when your data or user volumes grow.

Teradata Data Mart Edition

The Teradata Data Mart edition includes the latest Teradata Database software and basic utilities. It runs on standard Intel® SMP servers from Dell, HP, IBM, and other vendors. This software product can be used for prototyping and to get projects started with a very limited budget.

MAKE THE MOST OF YOUR RESOURCES

The Teradata Workload-Specific Platform Family makes it easy for you and your business to leverage your current resources and tools. So your systems administrators, DBAs, and application developers can support multiple systems without the need for additional training. The platform family also gives you the flexibility necessary for meeting your short- and long-term data integration requirements.

WHY TERADATA?

Because Teradata is the world's largest company focused on analytic data solutions through integrated data warehousing, big data analytics, and business applications. Only Teradata gives organizations the advantage to transform data across the organization into actionable insights empowering leaders to think boldly and act decisively to make the best decisions.

FOR MORE INFORMATION

To find out more about how the Teradata Workload-Specific Platform Family can help you raise enterprise intelligence and grow your data warehousing capabilities—and your business—contact your local Teradata representative or visit **Teradata.com**.

Model	DATA MART APPLIANCE	EXTREME DATA APPLIANCE	DATA WAREHOUSE APPLIANCE	ACTIVE ENTERPRISE DATA WAREHOUSE
Nodes	Efficient single rack system including:	Integrated system of node and storage including:	Integrated system of node and storage including:	Integrated system of node and storage including:
Description	Single node – with Dual Intel Six- or Eight-Core Xeon® Processors	MPP nodes with Dual Intel Eight-Core Xeon Processors	Eight MPP nodes per cabinet with Dual Intel Twelve-Core Xeon Processors	MPP nodes with Dual Intel Six- or Eight-Core Xeon Processors
Operating System	SUSE Linux	SUSE Linux	SUSE Linux	SUSE Linux
Storage	Up to 48 300-, or 450-, or 600GB enterprise-class HDD drives and up to 8 400GB SSD	168 2TB or 3TB SAS drives per cabinet	288 300-, or 600-, or 900GB SAS drives per cabinet	Up to 174 300-, or 450-, or 600GB enterprise-class HDD drives per node and up to 20 400GB SSD per node
Total Capacity – User Data	Up to 8TB	Up to 234PB	Up to 21PB	Up to 61PB
Scalability	Single cabinet design	Scales up to 2,048 nodes	Scales up to 2,048 nodes	Scales up to 2,048 nodes
Availability	Includes RAID1 disk mirroring	Includes RAID6 data protection, global hot spare drives, and optional Hot Standby Nodes	Includes RAID1 disk mirroring with node failover and recovery	Includes RAID1, system availability with node failover and recovery; performance continuity with Hot Standby Nodes
Memory	Up to 256GB	Up to 256GB per node	Up to 512GB per node	Up to 512GB per node
Interconnect	N/A	Teradata BYNET® over 1Gb Ethernet or BYNET® V5	Teradata BYNET over 1Gb Ethernet or BYNET V5	Teradata BYNET V5
Workload	Data mart; test and development	Analytical Archive, Deep Dive Analytics	Integrated data warehouse; analytical sandbox; traditional decision support	Integrated data warehouse; active data warehouse
System Management	Cabinet level	Fully integrated across cabinets and system	Fully integrated across cabinets and system	Fully integrated across cabinets and system

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