Teradata Extreme Data Appliance 1650

Analyze Deep, Large Data Volumes

Companies today create enormous amounts of data in their day-to-day operations. Every click on a web site, every call on a cell phone, every movement of an RFID tagged item, and every step of a manufacturing process generates data records. And, when those records are added up over months and years, you can end up with hundreds or even thousands of terabytes of data.

Savvy companies realize that with the right technology, they can finally gain real business value from analyzing those enormous amounts of behavioral or

process data. But first they must be able to make a significant amount of this extensive business area data available to the knowledge experts for corresponding deep analysis. This means that the data must be available online in a single system to accomplish the analysis simply, quickly, and cost effectively.

That's why Teradata Corporation, the global leader in enterprise data warehousing, has built the Teradata® Extreme Data Appliance 1650 for a specific purpose: to provide you with a complete, integrated

appliance to analyze massive amounts of deep data – an appliance that leverages Teradata's technical superiority at the lower cost per unit of data that matches your volume-based value needs.

Gain Strategic Intelligence

This purpose-built appliance allows you to gain deep strategic intelligence from extremely large amounts of detailed data. It supports very high-volume, non-enterprise data and analysis requirements for a small number of power users in specific work-groups or projects that are outside of your enterprise data warehouse (EDW).

Just as important, this appliance from Teradata is a member of the field proven Teradata Purpose-Built Platform Family, bringing you the same scalability and data warehouse capabilities you've come to expect from Teradata. And like all the members of the family, the Teradata Extreme Data Appliance is based on the industry-leading Teradata Database software and utilities.

Feature-Rich Resources

The Teradata Extreme Data Appliance also leverages Teradata Database's unique virtual architecture and optimizer to enable the scale up of data available for processing by queries. Among its other key features are:

> Extremely large user data capacities with 91TB per cabinet of user data with zero percent compression.

> Featuring massively parallel processing (MPP) architecture, the Teradata BYNET® system interconnect with

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high-speed, fault tolerant, optimized messaging between nodes is a key scalability ingredient. The Teradata Extreme Data Appliance has scale out capability to 4,096 nodes, thereby enabling the potential of a huge data warehouse of more than 186PB.

> Utilizes a density optimized version of Teradata Storage that is based on industry-standard, enterprise-class drives and high-performance, industry-leading disk array technology. Storage consists of a configuration of 144 commercial data disk drives each with either 1TB or 2TBs of capacity.

> Pre-configured to meet the demands of very large data set analysis with simple-to-order and easy-to-expand increments.

Cost-Effective Flexibility

What does all that mean to you and your business? It means:

> The total cost of acquisition for each unit of storage is right-sized to meet your ROI needs for analysis of massive amounts of data.

> On a capacity to capacity basis, the Extreme Data Appliance provides 1.5X improvement in performance, and delivers 2X improvement in footprint at the same low price per Terabyte as the previous model.

How Teradata Customers are Using the Teradata Extreme Data Appliance

Many Teradata customers, in a mix of industries, have begun to delve into massive volumes of detailed data, which were previously impenetrable and not cost effective to analyze. As these customer examples demonstrate, the Teradata Extreme Data Appliance has made the analysis possible.

> **Telecommunications** – Teradata customers are collecting massive volumes of detailed data about consumer cell phone usage. Data analysis has enabled customers to perform a quality assessment of network, cell tower, and handset performance; fulfill legal compliance for retention of seven years of history; and gain valuable insights into consumer behavior.

> **Retail** – Retail customers can meet the international value added tax government compliance reporting requirements on the purchase of millions of items by millions of consumers.

> **Finance** – A financial services customer stores 14 years of historical consumer banking data to enable easy access for archival analytics.

> **Manufacturing** – A manufacturer performs quality assurance analyses on product production data to ensure plant efficiency and fault-free products.

> **Online business** – An online business deployed an entertainment-related royalty application to provide a more accurate view of its business results and capture additional revenue.

> All Teradata Database indexing capabilities are included on this platform. These features, such as Partitioned Primary Index, help you efficiently organize and query very large amounts of data.

> System management is made easier with simplified platform administration, control, and monitoring through a single operational view and Teradata Viewpoint Server. This industry-leading, integrated systems management infrastructure monitors and controls the system, performs routine events,

such as orderly start up and shut down, and protects the system from disruptive failure.

> There is flexibility to migrate from Teradata Extreme Data Appliance to another Teradata platform family member as your needs evolve. You can leverage the same resources and processes since it runs the same underlying Teradata Database. Your data models, data, table structures, user views, queries, and load jobs will all migrate across the Teradata Purpose-Built Platform Family.

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Purpose-Built Excellence

Teradata Extreme Data Appliance provides unmatched data scalability, eliminates the unexpected, reduces risk, and allows you to focus on driving the highest return on your data warehousing investments – today and tomorrow.

Each appliance is fully integrated and pre-tested, so it's ready to run right after delivery. In fact, you can begin loading data and running queries shortly after initial delivery – so you can quickly begin seeing real business value. And, Teradata Extreme Data Appliance is backed by award-winning Teradata consulting and support services, and Teradata's demonstrated data warehousing expertise.

Why Teradata?

Need more reasons to choose the Teradata Extreme Data Appliance to meet your extremely large data set analysis needs? This single vendor solution from Teradata provides everything you need to perform deep data analysis at a storage unit price point you can afford. And this appliance brings exactly what you've come to expect from Teradata: unparalleled technology, backed by experienced and skilled professionals, that delivers analytic solutions to empower breakthrough business strategies.

For More Information

To find out more about how Teradata Extreme Data Appliance 1650 can help you raise enterprise intelligence while you grow your data warehousing capabilities – and your business – contact your local Teradata representative or visit **Teradata.com**.

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Teradata Extreme Data Appliance 1650 Description

The Teradata Extreme Data Appliance 1650 includes:

- Teradata Database 13.10
- SUSE Linux 10, SP3 for 64-bit Operating System
- Integrated Cabinet
  - Dual Intel Six Core Xeon® processors @ 2.96GHz per node
  - Teradata BYNET® Interconnect software
  - 23TB user data in a half cabinet using 1TB drives or 91TB user data in a fully populated cabinet using 2TB drives with zero percent compression
  - 144TB spinning disk in a half cabinet or 288TB spinning disk in a fully populated cabinet with 2TB drives
  - System Management infrastructure and Teradata Service Workstation
- Scalable up to 186PB of customer data space

The Teradata Extreme Data Appliance comes with the Teradata tools and utilities you need to build and maintain your data warehouse, including:

- **Management** – Teradata Viewpoint, Workload Designer Portlet, Workload Monitor Portlets, Teradata Management Portlets
- **Data Loading** – Teradata Parallel Transporter Load, Export, and Update Operators
- **Data Management** – Teradata Meta Data Services, Teradata Administrator, Teradata Analyst Pack

- **Connectivity** – ODBC, JDBC, CLI, OLE DB Provider, .NET Data Provider, Plug-in for Eclipse, Data Connector
- **SQL Generation** – Teradata SQL Assistant, Basic Teradata Query Utility (BTEQ)

Teradata Service Workstation

- Provides single operational view to administer the entire MPP system with local or remote system monitoring
- Connected via redundant gigabit Ethernet LAN to system elements
- Enables management of external disk subsystems
- Microsoft® Windows® 2003-based console server

Specifications

Cabinet Specifications

- Height: 77 in. (195.6 cm)
- Width: 24 in. (60.96 cm)
- Depth: 45 in. (114.3 cm) – 40 in. (101.6 cm) w/o the front and rear doors
- Weight: 1,715 lbs. (780 kg) fully loaded with crate
- Installed Weight: 1,465 lbs. (666 kg) fully loaded w/o crate

Operating Specifications

- Operating Temperature: Allowable: 59°F to 77°F (15°C to 25°C); Recommended: 68°F to 77°F (20°C to 25°C)
- Relative Humidity: Allowable: 20% to 80% (non-condensing); Recommended: 40% to 55%

- Voltage Range: 200/240VAC with Single Phase; 220 - 240/380 - 415, 3~ +N +PE with three phase international
- Frequency: 50Hz – 60Hz
- Current: 24 amps – Four cords with 30 ampere North American – plugs – L6-30P and 32 amps with two cords three phase IEC plug
- Power: 8300 watts
- Dual AC: Standard
- Compliant with U.S. and International Safety and Emissions Standards

Support Services

Core Support/Core Advantage/ Business Critical

- Integrated hardware and software maintenance and support
- Secure remote connectivity
- Fast response times
- Flexible coverage hours (7x24 and 8x5)
- Robust diagnostic capabilities with Teradata Vital Infrastructure
- Easy access to software updates via Teradata @ Your Service
- Proactive system monitoring
- Software release management and installation
- Service and support reporting and reviews
- On-site spare parts

Implementation Services

- System Installation
- Software Implementation