Top 10 Truths About Teradata

Everything you need to know about the unparalleled innovation, affordability, and value of Teradata solutions
Top 10 Truths About Teradata

Experience our innovation

Teradata leads the data warehousing market in technical innovation, solution deployments, and most importantly, satisfied customers. Our early vision to develop a massively parallel processing (MPP), shared-nothing architecture became the pioneer for the first separate system to analyze data. Built with linear scalability on industry-standard Intel CPUs, our data warehouse remains unmatched.

Ironically, such a long history of innovation and success often gives people the idea that we’re “old-school.” How could a company be a market leader in its infancy and still be the most innovative decades later?

No doubt, the industry has changed dramatically over the years – from basic batch-loading and reporting workloads to integrated data warehousing and active intelligence. But make no mistake: Teradata has evolved, always two to three years ahead of the curve, staying ahead every step of the way. Many have imitated us, but none have been able to surpass us. So naturally, being the leader for this long makes other vendors inclined to put their own spin on why Teradata continues to dominate the data warehousing market.

But we think you’d rather hear the truth from us.

To set the record straight here are the top 10 facts about Teradata – who we are, why we’re different, and what our innovation can mean to your business. Once you learn more, we trust you’ll be prepared to choose the data warehousing and analytics technologies that will enable you make your best decisions possible.
Top 10 Truths About Teradata

**Truth #1: Teradata continuously drives data warehouse innovation.**

Teradata is the undisputed industry visionary. Our long history of innovation and leadership is matched only by an extensive list of market firsts. (See box at right.)

Yet we’ve never been content to rely on past achievements. Our customers look to us to anticipate market needs and develop intuitive solutions to difficult business challenges. And we are committed to providing solutions that promote competitive advantage. These efforts have led to 367 new patents in the past 9 years – an average of one new patent every week.

Consider the hybrid technology that’s part of the Teradata Active Enterprise Data Warehouse. It’s the first platform with both solid-state drives (SSDs) and hard disk drives (HDDs), that automatically and dynamically moves data to the appropriate disk based on customer usage. “Hot” data goes to the faster SSDs and least-used “cold” data moves to the slower HDDs. The result is a ground-breaking platform that makes smarter decisions at hyper speeds.

**Teradata Innovations**

When it comes to bringing innovations to market, Teradata delivered the first:

- System for analyzing data, the Teradata Database Computer
- Terabyte and petabyte data warehouses
- Workload-specific platform family
- Multi-temperature data warehouse
- Data warehouse appliance
- Virtualized software environment with optimized use of CPU, memory, and disk drives
- Solid-state extreme performance appliance
- Extreme data appliance
- Hybrid storage data warehouse
- Geospatial, temporal, and hybrid columnar
- SQL-MapReduce appliance

Our passion for delivering leading edge solutions is rewarded by our customers and industry analysts alike. A recent report from Gartner showed that Teradata was again named a leader and according to *The Forrester Wave: Enterprise Data Warehousing Platforms, Q1 2011*, “Teradata offers the most scalable, flexible, cloud-capable EDW solution in today’s market.” And in its 2011 Data Warehouse Landscape report *The Information Difference Company* recognized Teradata as the technology leader and data warehouse vendor with the highest customer satisfaction.

“Teradata systems now feature storage configurations with a hybrid mix of SSDs and HDDs ... Teradata’s system managed storage automatically places hot data on SSDs and cooler data on HDDs. So Teradata customers benefit from the performance of the SSDs without additional administrative burden or costs ... Enterprise SSDs provide dramatically higher performance in data retrieval and update compared to HDDs.”

– Richard Winter, President of Winter Corp.
Truth #2: Teradata delivers low total cost of ownership.

Teradata solutions routinely help companies realize new insights for increased profitability and dramatic competitive advantage. It’s no secret that we deliver exceptional results. Yet our solutions are a surprisingly affordable value.

Teradata offers (See Figure 1.) workload-specific data warehousing platforms to meet your analytical needs while matching your architectural requirements. Our competitive prices include everything you need – processing, storage, database, utilities, and network interconnect – all delivered ready to run.

We continually leverage innovative technology to provide ever-increasing value with powerful Teradata systems at lower prices. In fact the list price for systems with the same equivalent performance has dropped more than 75% in the last 7 years across 4 major platform releases (See Figure 2.). Over the same period, numerous new database capabilities have been added such as partitioned indices, temporal, geospatial, and columnar, while overall system availability has grown to support full mission critical applications. And you can buy just what you need, with the knowledge and confidence that you can scale your Teradata system as your business intelligence needs evolve.

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Buying data warehouse technology is like making any other strategic investment: the initial price only tells part of the story. In this case, it’s a good story because the Teradata workload specific platforms offer the lowest total cost of ownership (TCO). The true cost of your purchase largely depends on the related expenses of owning the solution over time. That’s where we really shine. The cost of operating a Teradata system is low because of rich technology such as automated data placement, ease of system manageability, powerful tools, and database functions optimized for analytics. The combination of low acquisition cost and low operating costs enables Teradata to provide the lowest TCO. You’ll save even more by eliminating the cost of managing multiple independent data marts, appliances, and operational data stores.

What’s better is that Teradata also offers the highest business value of any data warehouse solution, helping customers run cross-functional analysis to answer complex business questions and discover insights across their business. Companies can get a head start with industry-specific logical data models, industry specific consulting, and expert data warehouse services.

Simply put, we deliver the most value for your money; the lowest TCO and the highest business value.

“To determine total cost of ownership, we evaluated migration, product cost, and regular and annual maintenance, including how many database administrators [DBAs] were required to maintain the environment. Teradata was number one of all vendors. It’s the market leader.”

– Sathish Gaddipati, Director of Enterprise Data Management and Business Intelligence, IHG, “Room To Grow,” Teradata Magazine, Q2 2010
Truth #3: Teradata’s solutions are for enterprises of all sizes.

Everyone knows that large corporations employ data warehouses and analytic data solutions. Many industry giants are renowned for their use of data-based insight from Teradata systems to gain remarkable business value. (See Figure 3.)

But Teradata solutions are used by companies of all sizes. Our products are well-suited for small and midsize businesses, as well as smaller divisions and departments of larger organizations. In fact, 30% of our customers have annual revenue of less than $1 billion.

We build simplicity into our solutions, and it delivers big benefits for our customers. Teradata Database does most of the work automatically. With simple database and table definition processes, and no need for detailed space management and memory or cache management, our solutions are easy to manage and scale.

For every Barclays Bank PLC
There is also Russian Standard Bank, Shikoku Bank, St. George Bank and Toho Bank

For every Harrah’s
There is also Mohegan Tribal Gaming Authority and Silverton Casino

For every Nationwide
There is also Corona Direct N.V. and Harvard Pilgrim Health Care Inc.

For every Sears
There is also Applebee’s International, Giant Tiger Stores Limited, Haggen Inc., and Lund Food Holdings, Inc.

“With an “It’s in there!” approach, different reporting requests can be quickly turned around and addressed, maintaining momentum and building the value of IT – all of which are common benefits of the data warehouse investment.”

– Christopher McCrae, CIO, Red Apple Group

“5 Reasons Mid-Sized Organizations Should Consider Data Warehousing,” Teradata Magazine, Q1 2011
Truth #4: Through Teradata active intelligence solutions, customer-facing employees work smarter.

Putting new insight into the hands of your back-office workers is just the first step in realizing active intelligence. To stay ahead of your competition, you need to create and cultivate consistent, up-to-date intelligence throughout your enterprise. (See Figure 4.) Teradata solutions give frontline workers – everyone from customer service representatives to retail cashiers and call-center agents – the information they need to make rapid, knowledgeable decisions that support your company’s strategic goals.

> For one retailer a typical day involves more than 30,000 users accessing the Teradata system, running over 1 million queries. Many of these queries come from handheld devices used by store employees, checking on individual product (SKU) sales from the sales floor, with sub-second response times.

> A telecom company went from 3000 users of the Teradata system to do back-office analytics to more than 33,000 users by adding their store network so store managers have up to date information at their fingertips on configurable dashboards. And yet, the combined workload of the 30,000 new dashboard users consumes less than 1% of the overall Teradata system.

> By adding real-time loan offers to selected customers on their ATM network, a European bank’s first campaign resulted in 200 loan inquiries per hour and 5000 new loan contracts in the first three weeks of rollout.

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**Figure 4. Active Intelligence Elements**

- **Active Load**: Intra-day data acquisition; Mini-batch to near-real-time (NRT) trickle data feeds measured in minutes or seconds
- **Active Access**: Front-Line operational decisions or services supported by NRT access; Service Level Agreements of 5 seconds or less
- **Active Events**: Proactive monitoring of business activity initiating Intelligent actions based on rules and context; to systems or users supporting an operational business process
- **Active Workload Management**: Dynamically manage system resources for optimum performance and resource utilization supporting a mixed-workload environment
- **Active Enterprise Integration**: Integration into the Enterprise Architecture for delivery of intelligent decisioning services
- **Active Availability**: Business Continuity to support the requirements of the business (up to 7X24X365)
An airline uses its Teradata Active Data Warehouse to dynamically revise forecasted demand for seats and drive continually optimized 15-minute updates to fare prices for all flights up to one year in the future. Every second, the system is capable of handling 500 requests for fare information.

With Teradata Active Intelligence, you get the foundation for near real-time, smarter decisions throughout your organization. You can share in the advantage already deployed by leading-edge companies around the world, who use their Teradata solutions to get and stay ahead of the competition.

“We thought that Teradata was the best technology platform to support that strategy. We had key criteria that we looked at when we evaluated the platforms. We wanted a platform with the ability to scale because we knew that our internal growth, coupled with the possibilities of mergers and acquisitions, was a key consideration.”

– Dr. Wolfgang Schwegle, Senior Manager, Corporate Data Warehouse, Lufthansa, “There’s no better way to make decisions,” Teradata Universe 2009
Truth #5: Teradata analytic data solutions turbo-charge your competitive advantage.

Sure, our original claim to fame was our MPP, shared-nothing architecture and the Teradata Database. These are mainstays for organizations around the world who use them to create a single view of the enterprise. But there’s a lot more.

With analytic technologies from Teradata customers are able to dig deeper into their data for new insights that can drive unprecedented business value.

The Teradata Integrated Analytic Portfolio creates the essential foundation for high value, eye-popping analytics. (See Figure 5.) Using the parallel architecture of the Teradata Database for speed and scalability, this powerful suite of analytic data

Fast, Deep Insight

The Teradata Integrated Analytics Portfolio supports:

- Data exploration and visualization – interactive, in-data-base exploration and visualization via Teradata Profiler and Tableau
- OLAP Optimization – optimized BI via Teradata Aggregate Designer and Teradata OLAP Connector for Excel driving analysis at the speed of thought
- Geospatial – native geospatial data types and methods to analyze location data
- Advanced analytics – advanced analytics capabilities from Teradata ADS Generator, TeradataR, and in-database data mining technology from leading partners including SAS, SPSS and KXEN
- Agile Analytics – self-service analytical workspaces, called data labs, in the data warehouse to rapidly explore new data and test theories
- Big data integration – high speed integration to extract facts from multi-structured data for broader analysis within the Teradata Database
- Application development – the Teradata Plug-In for Eclipse, which enables programmers to convert database objects into web services for enterprise applications

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solutions helps you use data in imaginative new ways. Moreover, in-database technology minimizes data movement and eliminates unnecessary replication, letting users focus on their work instead of the mechanics of moving data.

The Teradata integrated analytics portfolio provides a 360-degree view of your business, customers, and value chain. Delivered with blazing-fast speed, this insight supports faster, better decisions that help you get closer to your customers and use your data for maximum competitive advantage.

“Teradata provides best in class analytic and BI solutions that are used to create significant value for our business.”
Truth #6: Teradata solutions harness big data challenges.

People are talking about big data trends and challenges. But the problem isn’t just harnessing the power of huge volumes of data. You need to gain insight from new types of data, including web logs, sensor data, social networks, and text such as call center records. Unlike transactional data, these forms of information feature complex, often unknown relationships and they are delivered faster than they can be consumed.

Teradata solutions have successfully helped customers address huge data volumes for decades. After all, we were the first to create terabyte and petabyte warehouses. Today, more than 25 customers are in the Teradata petabyte club.

But conducting rich exploration against multi-structured data types requires more than SQL. To meet this need, Teradata is bridging the chasm between complex data technologies such as MapReduce and the SQL skills of business analysts. (See Figure 6 on page 12.) The Teradata Aster MapReduce Platform, delivers big data analytics that make it easy for business people to see, explore, and understand multi-structured data.

“Our clients want to optimize their digital marketing spend. They need to understand, ‘Is the advertising I run on Site A better than the advertising I run on Site B? And is this creative more effective than an optional creative? In order to be able to reach those conclusions, we use the Teradata Aster MapReduce Platform to get the context in which the ad was served, every time it was served. What is the ad? What is the site it is run on? What day and time is it run? All that information is analyzed using marketing attribution MapReduce algorithms in the Teradata Aster MapReduce Platform.”

– Marc Ryan, senior vice president and chief research officer, Insight Express, Press Release: Momentum Grows for Teradata Aster Digital Marketing Optimization, April 2012
With 50 prepackaged functions and applications designed to meet big data analytics challenges, you can quickly and efficiently discover value from these new forms of data.

It’s the best of both worlds: we’re building on our heritage of leading-edge data warehousing technologies while helping companies realize the promise of big data analytics.

“Within the Teradata Aster platform, we tie together click stream information with email logs, with ad viewing information, with operational information in order to identify what’s going on with our customers and how to optimize our marketing spend. We also leverage Twitter feeds into the Teradata Aster platform to tokenize and parse large volumes of text for sentiment analysis over Twitter feeds. This allows us to be more responsive to the customer and put our finger on the pulse of what’s going on.”

– Geoff Guerdat, director of Data Engineering, Gilt Groupe

Press Release: Momentum Grows for Teradata Aster Digital Marketing Optimization, April 2012
Truth #7: Teradata is hard to beat.

Have you seen the recent “Teradata trade-out” campaigns from our competitors?

Many vendors compare themselves to Teradata, and companies are wise to investigate their claims. In fact, we’re happy to go head-to-head with our competitors. Because when customers compare us against the competition, they most always choose Teradata.

Despite the continuing campaigns to replace our systems, we’re doing better than ever – when it comes to both retention of existing customers and new customer “wins.” (See Figure 7.)

Our evidence:
> In the last 2 years we’ve replaced over 100 competitive data warehouses
> Our competitive win rate is greater than 80%
> It is very rare that a competitor replaces a Teradata system
> In our most recent fiscal year, revenues increased 22% over the previous year

Compare to be sure. Then you’ll choose Teradata.

“...The Teradata platform was not only less expensive but also better from a risk-assessment view. In the last nine months that we have been running on it, we have hardly needed to perform any maintenance. With our former Oracle data warehouse, we were repeatedly indexing and partitioning. We definitely made the right decision in terms of improved operations as well as expanded analytics.”

Truth #8: Teradata provides flexible cloud pricing and offerings.

Teradata offers a wide variety of flexible analytic data solutions, customizable to meet your unique business needs. (See Figure 8.)

We also have options for companies that want the flexibility of cloud-based offerings:

> **ADW Private Cloud**, a next-generation solution that extends the cloud capabilities of the Teradata Active EDW with pay-as-you-go options

> **Teradata Data Warehouse as a Service (DWaaS)**, which was developed for midsized companies, offers attractive monthly pricing options for hosting and management of Teradata Data Warehouse technology

> **Teradata Hybrid Cloud** combines private and public options to build the best architecture for your requirements

> **Teradata Express public and private cloud** is deployed free for test and development or proof-of-concept projects

> **Teradata Aster public cloud**, an MPP database management system for the cloud with pay-as-you-go, incremental scaling-on-demand

> **Teradata Aster Express private cloud**, deployed free for test and development or proof of concept projects

> **Aprimo public cloud** includes the Aprimo SaaS product suite and Aprimo Marketing Studio

For customers that want to minimize their IT burden, Teradata offers a complete suite of managed services that help reduce costs and improve data warehouse efficiency.

Together, these offerings provide flexible pricing, cost savings, and time for your IT staff to focus on delivering data-based value to the business, rather than managing the data warehouse. All from a vendor you trust. What could be better?

**“Teradata Active Data Warehouse Private Cloud is the first real example of a private cloud for data warehousing workloads on the market, embodying key elements of self-service, pay-for-use and elastic growth and shrinkage of resources.”**


**“It’s interesting because we had a very accelerated plan around where we wanted to take technology at BevMo, the IT plan, and we always had Teradata in the back of our minds, but the cloud offer really brings it into a whole new realm because it’s not as big a risk from a financial perspective.”**

– Bob Graham, Chief Information Officer, BevMo
Truth #9: Teradata products are incredibly powerful and green.

To help companies meet their sustainability goals, we deliver high-performing systems that use less energy and consume less space. Here’s how:

> Teradata solutions have better equipment power density than the industry average, reducing the demand for data center cooling and creating energy and floor space savings. The Teradata Active Enterprise Data Warehouse consumes 80% less power than equivalent industry standard equipment.

> We continue improving. With ongoing platform efficiency improvements, our current systems are 8x more energy-efficient than the equivalently sized products we sold in 2006.

> Space and power requirements for Teradata solutions continue to shrink. Today’s appliances require 84% less power per TB of data space than those of earlier generations.

With our energy calculator, Teradata field personnel can even help you forecast the energy costs and floor space requirements of your solution before you deploy. It’s the fastest way to accurately assess the potential gains that a new Teradata system can deliver.

“Irregular savings...”

“From a performance perspective, Teradata customers can replace up to 18 HDDs with one SSD on a typical workload. This substantially reduces data center space, energy demand and total cost of operation.”

—- Richard Winter, President of Winter Corp., “Ready for Prime Time,” Teradata Magazine, Q4 2011
Top 10 Truths About Teradata

Truth #10: Teradata is the best investment decision possible.

Whether you’ve already purchased Teradata technology or you’re evaluating our solutions, protecting your investment is crucial. We offer a variety of non-disruptive technology and business options that help you maximize value and minimize cost. With Teradata solutions, you can:

> **Scale painlessly**: You can never outgrow Teradata. With scalable platforms, even our largest customers – who have petabytes of data – continue to successfully expand their systems with little disruption.

> **Avoid forklift upgrades**: With multi-generation coexistence, Teradata solutions let you integrate multiple generations of technology while optimizing performance availability.

> **Expand easily within the family**: All Teradata platforms are built on the same version of the Teradata Database. As your business intelligence needs grow, you can easily expand to leverage the value of the Teradata platforms.

> **Earn credit for loyalty**: We offer migration credits that you can apply toward your new system. With this program, a percentage of your original investment carries forward to your next purchase.

> **Update your software on a budget**: With our software subscription program, you can pay a monthly charge and receive updates and Teradata innovations at no further cost.

> **Grow with a plan**: Our data warehouse roadmap helps you select the appropriate growth path from your current appliance to the future. Whether you decide to add another application, support a new business area, or migrate to a new appliance, your next-best steps will be clear.

Teradata protects your investment every step of the way so the path to your technology future is clear.

“We were looking for a long-term solution, and we knew Teradata was the best choice to meet our needs.”

Conclusion: A rich history of innovation and technical leadership?

We're just getting started.

Teradata clearly leads the industry in cutting-edge data warehousing and integrated analytics solutions. And we know the best is yet to come.

We continue to develop new technologies that will:
> Innovate with big data analytics
> Provide automatic, transparent analytical ecosystem management
> Drive new in-database analytics
> Facilitate an always-on, self-healing database

With these developments and many others in the pipeline, our innovative solutions will help organizations address not only today's business challenges, but also the ones yet to come.

Our year-over-year returns indicate double-digit growth, and our roster of customers – both large and small – continues to expand. The future of Teradata is bright. And we're not the only ones who think so. The investment community and the analyst community are both bullish on Teradata.

Still, we know you'll hear many contradictory, even incorrect statements about Teradata and our solutions. But now you know the truth: Our innovation launched the data warehousing market but it's our continued commitment to technical excellence and serving our customers that will keep us in the lead.

<table>
<thead>
<tr>
<th>Truth</th>
<th>Fact</th>
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<tr>
<td>Teradata continuously drives data warehouse innovation</td>
<td>&gt; 11 major innovation firsts</td>
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<td>&gt; 397 new patents in the past 9 years</td>
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<td>Teradata delivers low total cost of ownership.</td>
<td>&gt; 75% lower cost over last 4 major platform releases</td>
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<td>Teradata's solutions are for enterprises of all sizes.</td>
<td>&gt; 30% of customers have annual revenue less than $1 billion</td>
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<td>Through Teradata active intelligence solutions,</td>
<td>&gt; Active load, active access, active events, active workload</td>
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<td>customer-facing employees work smarter.</td>
<td>management, active enterprise integration and active availability</td>
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<td>Teradata analytic data solutions turbo-charge your</td>
<td>&gt; Data exploration, BI optimization, geospatial, advanced and</td>
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<td>competitive advantage.</td>
<td>agile analytics, big data integration and application development</td>
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<td>Teradata is hard to beat.</td>
<td>&gt; Over 100 competitive replacements in the last 2 years</td>
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<td>Teradata provides flexible cloud pricing and offerings.</td>
<td>&gt; Multiple cloud-based options – private, public and hybrid</td>
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<td>Teradata products are incredibly powerful and green.</td>
<td>&gt; 89% footprint reduction</td>
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<td>&gt; 84% less power per TB required by appliances than earlier</td>
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Figure 9. Summary of truths and corresponding facts about Teradata