Teradata Dual Active Solution

New Opportunities for Mission Critical Applications

The world of data warehousing continues to evolve. More and more companies everywhere are looking at their data warehouse as a vital strategic decision-making asset, not simply as a repository

of historical information. And what they're seeing is the opportunity to build a better business by taking full advantage of technology to develop innovative and insightful applications.

At Teradata Corporation, we're extending the possibilities of data warehousing to better support your vision and to provide you with even more business-building capabilities. We're driving towards a new generation of data warehousing – one that gives you a platform that combines mission-critical applications with existing data warehouse workloads.

We'll show you how to take advantage of the high availability that your Teradata® solution can provide. And we'll show you how to integrate real-time data with historical data to create an array of revenue, operations, and customer-focused applications.

The Teradata Direction

We'll accomplish all that through the Teradata Dual Active Solution, a solution that delivers the highest levels of availability to your data warehouse. The Teradata Dual Active Solution is a key component in developing the next generation of data warehousing applications.

As you develop more innovative applications, they become increasingly strategic in nature and critical to your business. That means they also demand a level of availability that's typically not present in traditional data warehousing.

Rather than simply using a redundant system as an insurance policy, the Teradata Dual Active Solution activates the secondary system and uses it in daily production. It's a new way of looking at a secondary system, one that:

> Enhances your existing data warehouse.

> Provides the power to increase revenue streams.

> Moves you closer to your customers.

> Improves operational efficiencies.

> Ensures the highest possible levels of system availability.

We designed and developed this solution to meet the needs of companies like yours who are developing mission-critical applications for their data warehouse – applications that demand a higher level of availability.

An Innovative Approach

The Teradata approach differs significantly from other dual system solutions. First, because it allows you to use the secondary system in day-to-day production, it brings a positive ROI – a return previously unachievable with a passive system that acted only as an insurance policy. In addition to the ability to provide positive ROI, the Teradata Dual Active Solution offers features and flexibility that redundant systems never before could.

One of those key cost-saving features is its ability to only provide availability to specific applications and data. That means that the secondary system doesn't have to mirror or duplicate the entire primary system. Most customers estimate their mission-critical data to be between one-third and one-half of their total data. With a Teradata Dual Active Solution providing availability for just 50% or less of the primary system, the potential cost savings over a traditional redundant system are enormous.

TERADATA

Raising Intelligence

Teradata Dual Active Solution

The Solution Advantage

The Teradata Dual Active Solution provides significant benefits and savings over other redundant system approaches. Using the Teradata Dual Active Solution results in maximum availability at a fraction of the cost of a traditional disaster recovery system.

Teradata Dual Active Solution	Other Redundant Systems
> Duplicate ONLY mission-critical data and applications	> Duplicate 100% of primary system
> Use any Teradata hardware or operating system	> May require matching hardware and operating system
> Eliminate virtually all planned and unplanned downtime	> Eliminate only extended unplanned downtime
> Immediate failover	> Delayed failover
> Smooth peak processing	> No relief of peak processing
> Daily ROI – Use in daily production	> No daily ROI – System sits idle

More Than a Back-Up System

The Teradata Dual Active Solution is always up and running. So it's always ready to provide you with vital backup security in the event of unplanned downtime – just like a traditional redundant system. But because it's activated, it also eliminates the need for planned downtime for applications that have been classified as mission-critical. Each year, planned downtime accounts for more than two-thirds of all actual downtime. Eliminating planned downtime can provide a huge boost in availability – one that can be measured in terms of impact on the bottom line.

But an even greater benefit of the Teradata Dual Active Solution is that it uses the additional processing power to help you smooth out peak workloads on your primary system. Implementing this solution enables you to prioritize certain users, applications, and even queries. The result? You'll benefit from the power of the secondary system 24 hours per day – during periods of peak usage, maintenance activities, everyday query processing and, of course, during an unplanned outage to the data warehouse.
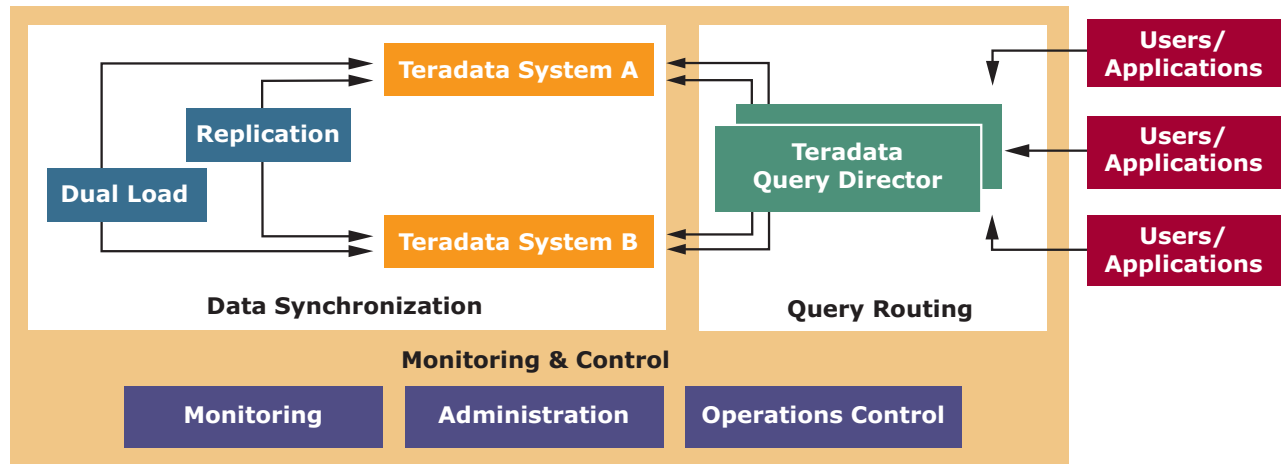
Enhancing Innovation

The Teradata Dual Active Solution can enable you to create innovative applications for your data warehouse environment and see a sustainable competitive advantage for your business. Here are some examples of what others are doing:

> **Manage intelligent inventory/supply chain applications** – You can not only predict and detect stock-outs, but you can re-route drivers already on the road to pick-up or drop-off additional goods.

> **Monitor travel connections** – Detect when a flight (or other mode of travel) will be delayed and automatically re-route or re-book passengers who may miss connections – before they land.

> **Leverage subscription services** – Provide historical and real-time data, allowing for immediate analysis of market conditions compared to previous trends.

> **Provide real-time CDR analysis** – Detect dropped calls and generate a call from customer service to the subscriber, allowing you to proactively manage a potentially negative customer experience.

TERADATA
Raising Intelligence

Teradata Dual Active Solution

Teradata Dual Active Solution Implementation

How does the Teradata Dual Active Solution work?

The solution funnels users and applications through Teradata Query Director software that is designed to intelligently route queries based on customer-established rules. The software passes requests freely through the system without creating bottlenecks or adding system overhead. Teradata Query Director also helps to share workloads between the systems and provides failover capabilities if an outage occurs.

A system monitoring and control application resides between the primary system and the secondary system (Systems A and B). This application monitors the system, data synchronization processes and Teradata Query Director software for outages or other events that require action. If a planned or unplanned outage occurs, the system will automatically trigger a change in state. The monitoring and control application makes any necessary changes to the system to account for the outage and the system will continue to handle its current workload.

Administrative controls allow you to perform administrative tasks, further customize certain aspects of the system, and perform traditional system management.

A variety of data synchronization methods can be applied to keep the data on both systems identical. Dual Loading is the preferred method for data that isn't likely to have significant updates over time. This method is beneficial because it provides the fastest loading process, the least amount of overhead on the primary system, and can handle large data volumes. Tables that require more updates or have other demands will use more appropriate loading methods, such as replication. Replication recognizes when data has changed on one system, captures that change and updates the second system to ensure that both systems maintain data synchronization. Replication provides the best, fastest, and most reliable way to handle data updates in the system.

TERADATA

Raising Intelligence

Teradata Dual Active Solution

The Right Solution

Whatever your need, Teradata will work closely with you to determine the solution that best meets your requirements. As the long-time leader in enterprise data warehousing, our business continuity team brings years of experience in applying technology that works and combining it with the newest tools available to take your data warehouse to the next level of reliability and operation. It's this enterprise approach to business that gives you the greatest return on your investment.

Teradata customers who are already using the Teradata Dual Active Solution are developing programs that drive business results and enhance customer relationships. And, they're approaching system availability of nearly 100%.

It's an approach to business that is unmatched today.

Why Should You Choose Teradata?

Teradata offers a blend of technology and experience unavailable from any other source. We've been providing innovative, best-in-class business solutions and technologies to some of the world's most successful data warehouses for 25 years. We're also the most experienced source for ensuring that systems are available, accessible, and continuously maximizing data for business growth. Our team of business continuity experts is dedicated to eliminating planned and unplanned downtime, protecting the availability of systems and data, and protecting you against component level and large-scale outages.

Teradata brings you the power to proactively manage your business. And Teradata solutions help provide analysis to expedite fast, accurate, and consistent decision-making across your entire enterprise. We can help you integrate data from every corner of your organization. Teradata also brings you a built-in foundation of industry knowledge, consulting expertise, global customer support services, and world-leading hardware technology – a combination of strengths unmatched in the industry.

For More Information

To learn more about how you can leverage the power of the Teradata Dual Active Solution to help you build a stronger, more profitable business, contact your Teradata representative or visit Teradata.com.

TERADATA

Raising Intelligence