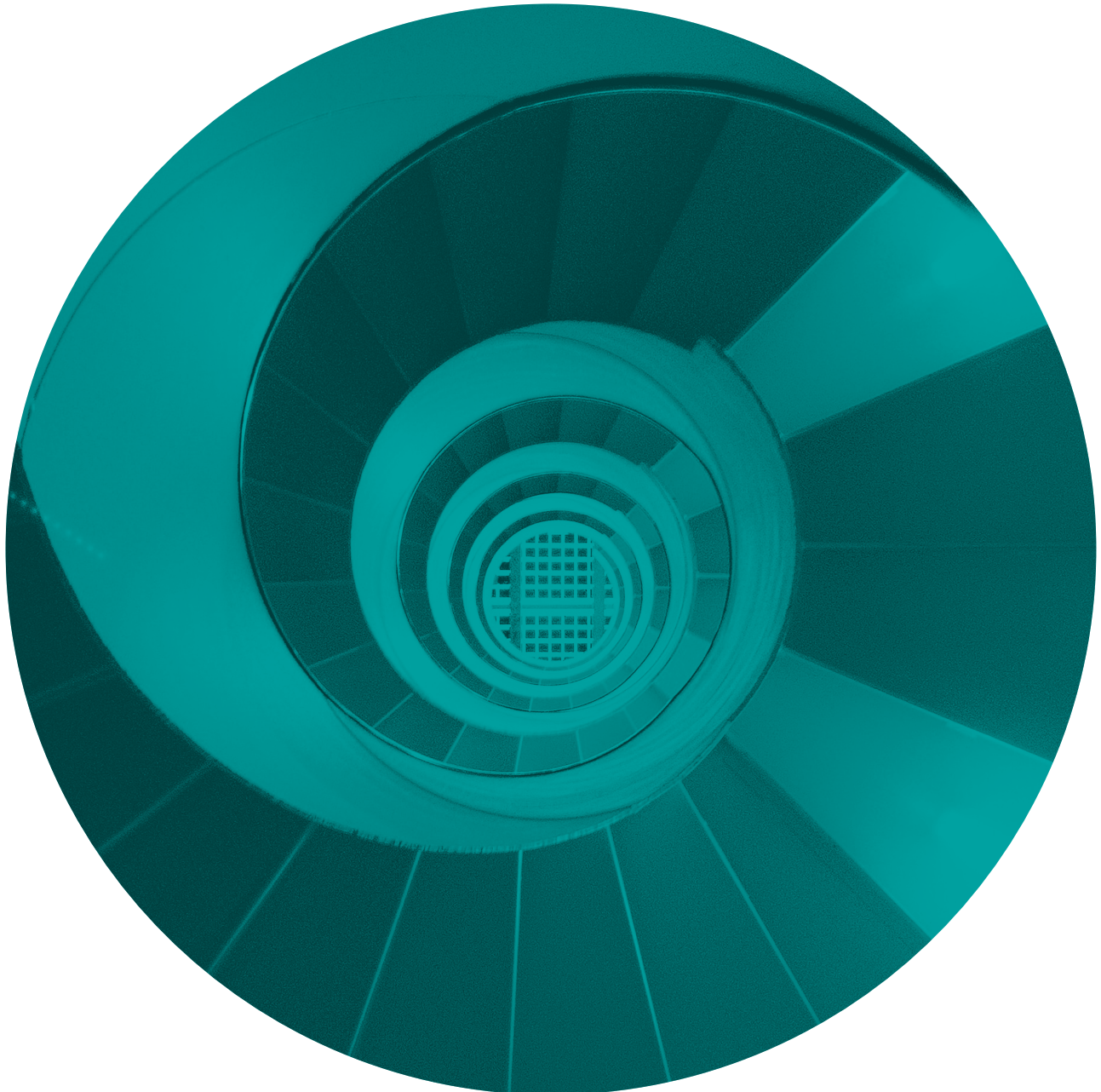


WHITE PAPER

Managed Disaster Recovery: Your Answer for Business Continuity



Now more than ever, organizations understand how critical their production analytics system is to their business. If the system goes down unexpectedly, the impact can be enormous: loss of revenue, inaccessible data, damaged business reputation, customer attrition, legal issues, and other problems.

Companies also need to think about their stakeholders and business users. What happens if they can't access their critical analytics environment to make informed decisions? Organizations need to ask themselves, "Do we have an effective disaster recovery (DR) strategy in place to ensure business continuity?"

If the answer is anything other than a resounding yes, then companies need to implement a proven and reliable DR solution. That's where Teradata can help. Its Managed Disaster Recovery provides cloud-hosted business continuity data protection for the Teradata analytic platforms.

The High Cost of Downtime

According to Gartner, the average cost of IT downtime is \$5,600 per minute. This adds up to \$336,000 per hour.

Data Accessibility is Business and Mission Critical

As today's business leaders say, "Data is the new currency." But this currency is only valuable if business users can access it. To ensure business continuity and to avoid the pain of losing data, Teradata offers convenient Managed Disaster Recovery options with flexible monthly pricing.

Because Teradata knows its technology better than anyone, the company provides clients with peace-of-mind. They'll know they have the industry leader managing their analytic environment—not all DR

solutions are the same, so it's important to work with an established company that has proven DR options for Teradata analytic environments, from simple to complex.

With Teradata, business function impact is the primary factor in determining recovery time objective (RTO), along with knowing which recovery solution is right for each particular customer application. The first step to choosing the best Managed Disaster Recovery option is to estimate how long—weeks, days, hours—a business can operate successfully without its essential data.

Teradata Managed Disaster Recovery offers differing levels of RTO and recovery point objective (RPO) to meet a client's needs:

- RTO is the timeframe when a business process must be restored after a major incident has occurred
- RPO is the age of files that must be recovered from backup storage for normal operations to resume

Providing various levels of RTO and RPO allows customers to pick a simple, quick to implement, and cost-effective Managed Disaster Recovery solution for their critical Teradata systems that best meets their needs.

Business Downtime Can Be Just the Beginning

The unexpected loss of a company's Teradata analytics system typically means much more than business downtime. It can also lead to loss of data, productivity erosion, and of course, frustrated business users who now distrust IT.

IT and business leaders need to put themselves in their users' shoes to understand what it's like when they can't access the analytics platform. Imagine trying to gain critical business answers, see retail point of sale data, close the books, or make decisions without access to their data. This highlights the importance of a proven and reliable disaster recovery system.



Disaster Recovery that Supports the Business

Teradata's Managed Disaster Recovery provides two tiers of recoverability: Managed Cold-DR and Managed Warm-DR. Each supports differing levels of RTO and RPO.

Managed Cold - Disaster Recovery

This option provides 72 hours or more of RTO and 24 hours or more of RPO by archiving data to cloud storage. Then, data is restored to a just-in-time provisioned Teradata database management system (DBMS) instance in Teradata Vantage™ on Amazon Web Services (AWS) or Teradata Vantage on Microsoft Azure (Figure 1).

Managed Cold - Disaster Recovery

- Provisioning consulting—initial planning and configuration
- Configuring network and security
- Setup cloud storage
- Initial testing of the Managed Cold-DR service

This solution supports running and monitoring the weekly or daily archives. Upon declaring a disaster, a previously-defined Teradata Vantage DBMS system is

made available in the pre-selected public cloud region. The latest backup is restored, along with any daily archives, and made ready to use.

The service includes support for two annual tests, lasting about two weeks each, with an affordable 1-3 year commitment. Infrastructure and cloud consumption costs are separate, although this solution is designed to minimize those costs.

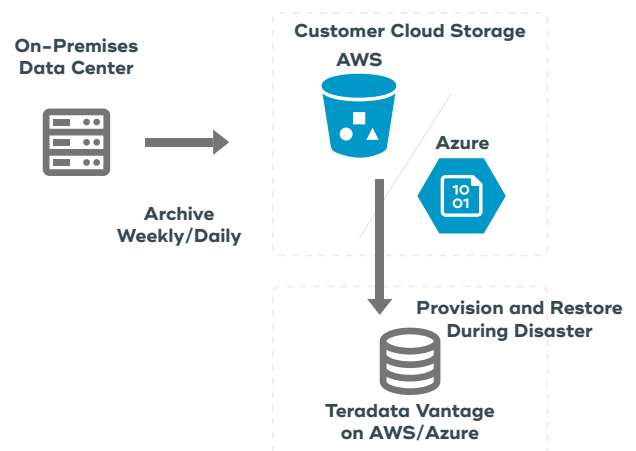


Figure 1: Managed Cold - Data Recovery

Managed Warm – Disaster Recovery

This option provides 24 hours or more RTO and 24 hours or more RPO by copying data directly from a source Teradata DBMS to a provisioned Teradata DBMS instance in Teradata Vantage on AWS or Teradata Vantage on Azure (Figure 2).

Managed Warm – Disaster Recovery

- Provisioning consulting—initial planning and configuration
- Configuring network and security
- Initial loading, priming, and testing of the Managed Warm-DR service

This solution supports running and monitoring the weekly or daily copying of data to the DR site. Upon declaring a disaster, the DR Teradata Vantage DBMS system is made ready to use.

The service includes support for two annual tests, lasting about two weeks each, with an affordable 1–3 year commitment. Infrastructure and cloud consumption costs are separate, although this solution is designed to minimize those costs.

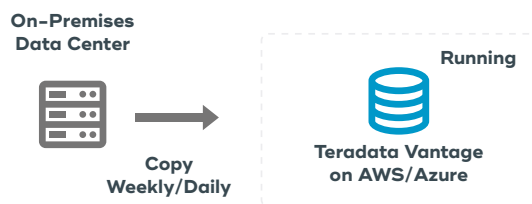


Figure 2: Managed Warm – Data Recovery

Environment Hosting Managed Disaster Recovery

Teradata cloud solutions provide cloud-based analytics at scale on a high-performing and secure analytics platform. With flexible deployment options on AWS or Azure, the cloud offerings are designed to deliver business benefits in these critical areas:

- **Performance.** Teradata solutions provide high-performing software for always-on analytics in the cloud. Customers benefit from the lowest cost per query and can efficiently analyze their data.
- **Security.** Teradata monitors the customer environment 24 hours a day, 7 days a week, 365 days a year. Customer data is encrypted in transit and at rest. Teradata invests in third-party audits to meet these international standards:
 - General Data Protection Regulation (GDPR)
 - Health Insurance Portability and Accountability Act (HIPAA)
 - International Standards Organization (ISO) 27001
 - Payment Card Industry Data Security Standard (PCI DSS)
 - Service Organization Control (SOC) 1 and 2

Eliminate the Guesswork With a Reliable Solution

Teradata's Managed Disaster Recovery service fills a critical need for cost-effective business continuity. It also provides the ability for customers with a cloud network gateway—1Gbps to 10Gbps—to connect with AWS or Azure to enable DR capability.

Teradata experts can work with organizations to identify the right Managed Disaster Recovery for their business. The disaster recovery team can determine and prioritize business-essential applications and data. The experts also quantify the importance and financial impact of a disaster, then develop potential recovery strategies based on specific needs and budget.

Recovery Options

Recovery Time Objective (RTO)	6-8 Weeks	14 Days	est. 72 Hours +	est. 24 Hours	Minutes/Hours
Teradata Solutions	Replacement System	Managed Disaster Recovery	Managed Disaster Recovery-Cold (Cloud storage)	Managed Disaster Recovery-Warm (Data sync)	Active-Active Systems with Managed Operations
Process During Disaster Event	Order New System	Declare Disaster	Declare Disaster (to Cloud)	Declare Disaster (to Cloud)	Ready to Use
Method of Data Recovery	Restore from Backup	Restore from Backup	Restore from Cloud Storage	Periodic Synchronization	Continuous Synchronization
BAR Software Supported	TSM, NBU, NV, TARA, DSA	NBU, DSA	DSA	Data Mover	N/A
BAR Hardware Supported	Tape, Data Domain	Data Domain-to Cloud only	N/A-target Cloud only	N/A-target Cloud only	N/A
Annual Testing	No	Yes	Twice Annual	Twice Annual	Yes

About Teradata

Teradata transforms how businesses work and people live through the power of data. Teradata leverages all of the data, all of the time, so you can analyze anything, deploy anywhere, and deliver analytics that matter most to your business. And we do it on-premises, in the cloud,

or anywhere in between. We call this pervasive data intelligence. It's the answer to the complexity, cost and inadequacy of today's approach to analytics. Get the answer at teradata.com.

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