Teradata Disaster Recovery Option Finder

A straightforward guide to determining your Teradata disaster recovery options.

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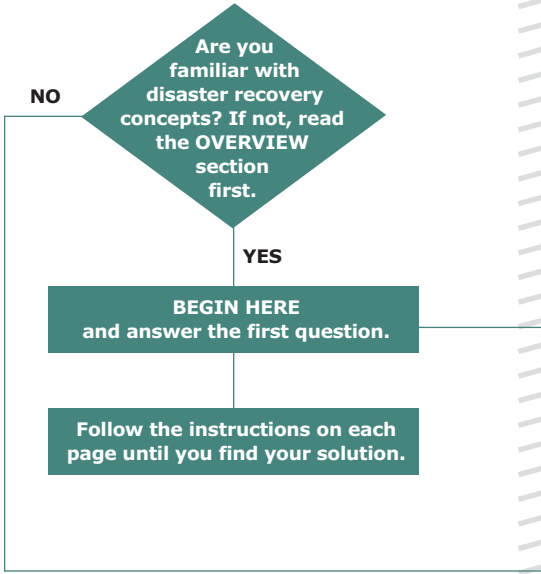
To use this guide:



Everything starts with understanding your Recovery Time Objective (RTO)

Your Recovery Time Objective is the maximum amount of time your users can be without access to their application data following a disaster. In other words, how quickly must your data warehouse be back up and available to users after a catastrophic failure event.

How do you determine your RTO? Your RTO should be based on the business impact you anticipate as a result of not having access to your data warehouse. The business impact may range from employees not being able to do their job, to lost revenue opportunities. In general, your goal should be to recover your data warehouse before there is a financial impact to your company.

Here are some helpful questions to ask yourself when determining your RTO:

> What applications (business functions) run on Teradata?

> How would you categorize these applications? (**Important, Significant, Critical**)

> How long you can operate without these applications? (**Weeks, Days, Hours**)

> If the applications are not available, do you have an alternate way to operate effectively?

> Who will be impacted; customers, suppliers, front-line workers, internal operations, etc…?

> Is the data available somewhere else?

> What would the end result look like if your applications are unavailable for weeks?

Answering these questions will determine your RTO.

START

Have you determined your Recovery Time Objective? (RTO)

NO

You *DO NOT* know your RTO requirements.

In the event that you need help gathering requirements, Teradata is offering a **free Disaster Recovery Assessment**. The assessment will help you **quantify your business impact** and **understand your recovery requirements**. This may be the first step to helping you decide which disaster recovery strategies are best suited for your particular business requirements.

RECOMMENDATION:
FREE DISASTER RECOVERY ASSESSMENT

Contact mike.mota@teradata.com
to schedule a convenient time.

Start Over

YES

You *DO* know your RTO requirements.

Use your known requirements to choose an RTO of weeks, days, or hours.

Select the tab that corresponds to your RTO requirement:

RTO of **WEEKS**

RTO of **DAYS**

RTO of **HOURS**

Teradata Recovery Option – WEEKS

RTO of Weeks

The Teradata Disaster Recovery (DR) strategy for an RTO of weeks is Post-Disaster recovery. The actual recovery time is estimated at **6-8 weeks**. Post-disaster implies ordering a replacement system after the disaster occurs and then recovering the data. The process of procuring a new system includes ordering it, building it, staging it, shipping it, have a place to install it, and make it network accessible. The longest process is the re-creation of the production data. This process will utilize the backup media, but also requires the loading of source data from the time of the last backup to the present.

RECOMMENDATION: DISASTER RECOVERY PLANNING

DR Planning will expedite the process and ensure the data can be recovered, but it can not be tested. DR Planning for your Teradata system should supplement your existing company DR Plan. DR Planning may be provided by Teradata, by your own resources, or through a third party.

You Are Done

Teradata Recovery Option – DAYS

RTO of Days

There are three solutions which can meet the RTO of Days.

> **TERADATA RECOVERY CENTER (SOLUTION 1)**
Leverage Teradata systems and recovery specialists.

> **SELF-MANAGED USING A DEDICATED SYSTEM (SOLUTION 2)**
Customer owned system dedicated to DR.

> **SELF-MANAGED USING A TEST/DEVELOPMENT SYSTEM (SOLUTION 3)**
Leveraging your test/development system in case of a disaster. This option is not recommended for customers that use it on a regular basis.

It is recommended to review each of the solutions within this section. Each has its own attributes which should help eliminate those that are not appropriate to meet your requirements. The DR process is the same for all three solutions.

Next Page

START

WEEKS

DAYS

SOLUTION 1 – Teradata Recovery Center (RC)

The Recovery Center is Teradata's recommendation for customers who are establishing a disaster recovery solution for the first time. The reason is that customers should learn Teradata recovery best practices before considering their own in-house disaster recovery solution. The RC is typically your lowest cost option. The RC contract allows you to choose another disaster recovery solution and cancel your contract without penalty.

Considerations:

- RTO is ≥48-72 hours
- You have data on tape media
- You want to leverage Teradata resources to learn best practices
- Cost is a key factor in choosing the DR solution
- You do not want to invest in hardware, software, and maintenance dedicated for DR
- Data may leave your data center environment
- If data is encrypted, it is encrypted with Teradata supported encryption

RECOMMENDATION: TERADATA RECOVERY CENTER

The RC is the best option for customers who want to minimize their DR costs, yet take full advantage of the RC resources to test their DR capability.

You Are Done

SOLUTION 2 – Self-managed using a dedicated system

Self-managed DR is an excellent option for customers who have experience with Teradata Disaster Recovery and have the necessary hardware on-hand to provide a system dedicated to DR. In some cases customers will purchase hardware for this solution.

Considerations:

> RTO is ≤48 hours

> Data may not leave your data center environment

> You have a system or will purchase a system dedicated to warm site DR

> You have a second geographically separate data center

> You want total control and flexibility over DR testing

> You are willing to invest in additional hardware as requirements change

It is important that you consider the risks and then choose to mitigate, eliminate, or accept those risks. It is critical that annual DR testing be performed to ensure your DR strategy is valid.

RECOMMENDATION: IN-HOUSE DR CONSULTING

We recommend Teradata's In-House DR Consulting to support your efforts. Teradata will assist in planning, readiness, testing, and will provide a test report with recommendations.

You Are Done

START

WEEKS

DAYS

SOLUTION 3 – Self-managed using your test/development system

Do you use the test/development system on a regular basis? If so, then you should consider Solution 1 or Solution 2. Solution 3 is typically not recommended because of the high risk of not performing an annual test. If you do not use your test/development on a regular basis, continue on.

Considerations:

> RTO is ≤96 hours
> Annual testing is a requirement and will use test/dev for days
> In the event of a disaster, system will be unavailable for weeks
> Test/dev must be located in a second geographically separate data center
> Test /dev systems are typically on a newer release of software. The software levels must match between the test/dev and production system. Teradata will assist with getting your test/dev system on the right release of software, but this will generally add to the expected recovery time
> Test/dev system must meet hardware requirements
> You are willing to invest in additional hardware as requirements change

It is important that you consider the risks and then choose to mitigate, eliminate, or accept those risks. It is critical that annual DR testing be performed to ensure your DR strategy is valid.

RECOMMENDATION: IN-HOUSE DR CONSULTING

We recommend Teradata's In-House DR Consulting to support your efforts. Teradata will assist in planning, readiness, testing, and will provide a test report with recommendations.

You Are Done

Teradata Recovery Option – HOURS

RTO of Hours

Customers with mission-critical applications require continuous availability which calls for a second data warehouse system. The second system need not be as large as the primary system, but it should be able to house enough processing power and data storage to run the business' critical data and applications that keep the business up and running. Dual system customers may implement Active/Standby or Dual Active configurations. This option provides high availability and performance continuity in addition to recoverability. This includes unplanned outages during a failure scenario, and planned outages to allow you to failover any critical processing to the second system. Planned outages may include maintenance activities, or software and hardware upgrades to the primary system. This will ensure that end users can still perform their mission-critical work. If designed to do so, the second system can also perform some work in parallel with the primary system; increasing overall throughput. Thus, you will be able to serve even more users and requests while providing a higher level of overall availability.

RECOMMENDATION: DUAL SYSTEMS

We recommend Teradata Dual Active or Active/Standby offers to support your efforts. Teradata will assist in design and implementation to ensure the success of your data warehouse.

You Are Done

START

WEEKS

DAYS

HOURS

Teradata Disaster Recovery Overview

There are **three** Teradata Recovery Options. Each option may have multiple Solutions. Everything starts by understanding the Business Function Impact of your data warehouse applications.

Business Function Impact	Recovery Time Objective	Recovery Strategy Alternatives	Solutions	Advantages
IMPORTANT "Supports" the business	Weeks	Post-disaster	DR Planning	Leverage forward
SIGNIFICANT "Controls" the business	Days	Shared resources (Active – Inactive)	Recovery Center In-house DR	Cost/outsource RTO/control
CRITICAL "Runs" the business	Hours/Minutes (Availability)	Dual Systems	Active – Standby Active – Active	RTO/data Data/users

Choosing a Teradata Disaster Recovery option is straightforward. It is driven by business impact and a basic understanding of your Recovery Time Objective (RTO), which will dictate a specific recovery option. The intent of the Teradata Disaster Recovery Option Finder is to start with gathering your requirements and ending with a recommended recovery solution.

Next Page

Teradata Disaster Recovery Overview continued

There are three Teradata recovery options:

1) Post-Disaster (RTO of Weeks)

2) Shared Resources (RTO of Days)

3) Dual Systems (RTO of Hours)

There are different solution iterations within these options:

> **Post-Disaster** implies ordering a replacement system after the disaster occurs. Teradata recommends DR Planning to expedite the process and ensure the data will be recovered.

> **Shared Resources** includes outsourcing the recovery to the Teradata Recovery Center, or using your own hardware and data center resources to recover on an In-house DR system. We recommend an In-house DR consulting engagement to ensure that Teradata best-practices recovery steps are identified and planned for.

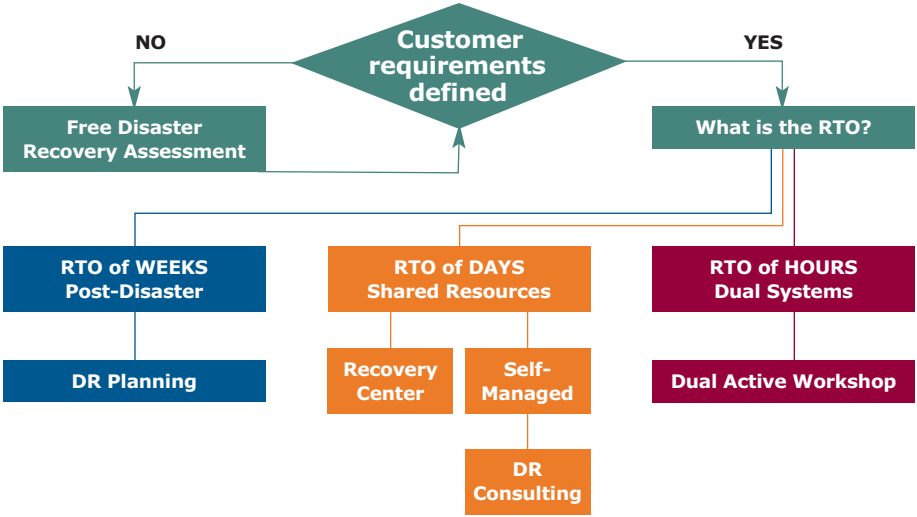
> **Dual System** customers may implement Active/Standby or Dual Active. These provide high availability and performance continuity in addition to recoverability.

Annual testing is a requirement for Option 2 and Option 3.

Customers invest in disaster recovery because they want to minimize the risk and business impact associated with a system loss.

Additional information is available at
Teradata.com/disaster-recovery

Teradata Disaster Recovery Finder Flowchart



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