

# Disaster Recovery Plan Using IBM Cloud Virtual Servers

## Problem Definition :

The project at hand requires the creation of a comprehensive disaster recovery plan using IBM Cloud

Virtual Servers. The primary objective is to establish a robust strategy that safeguards business

operations by ensuring continuity for an on-premises virtual machine in the face of unforeseen events,

such as natural disasters, hardware failures, or cyberattacks. This plan will encompass a series of crucial

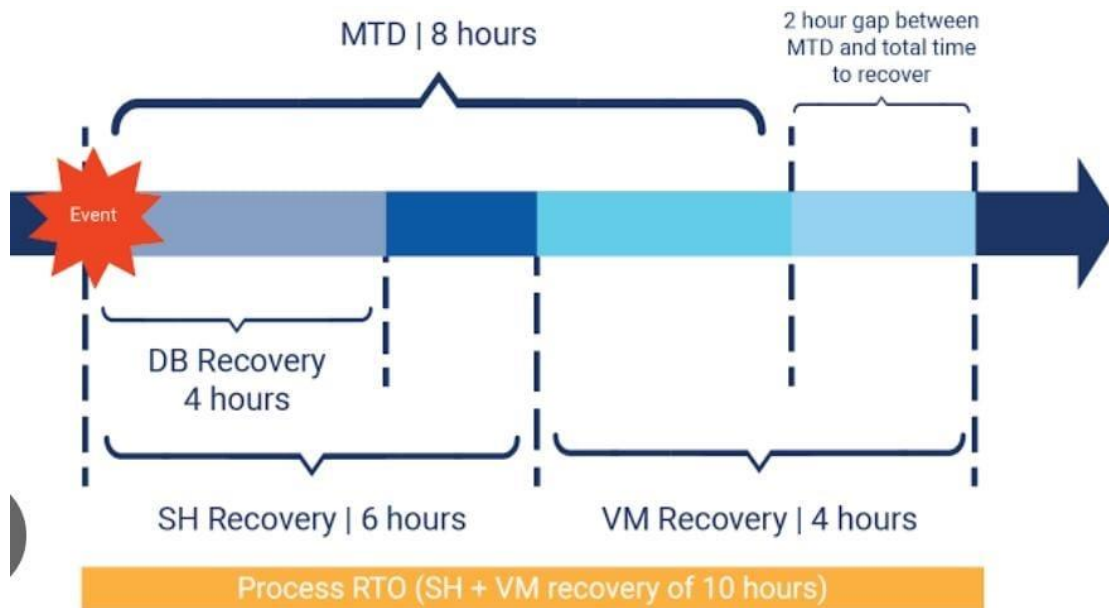
steps, including defining the disaster recovery strategy, implementing backup and replication,

conducting recovery testing, and guaranteeing minimal downtime. The overarching goal is to ensure

that the organization can swiftly recover from any disruptive incident and maintain seamless operations.

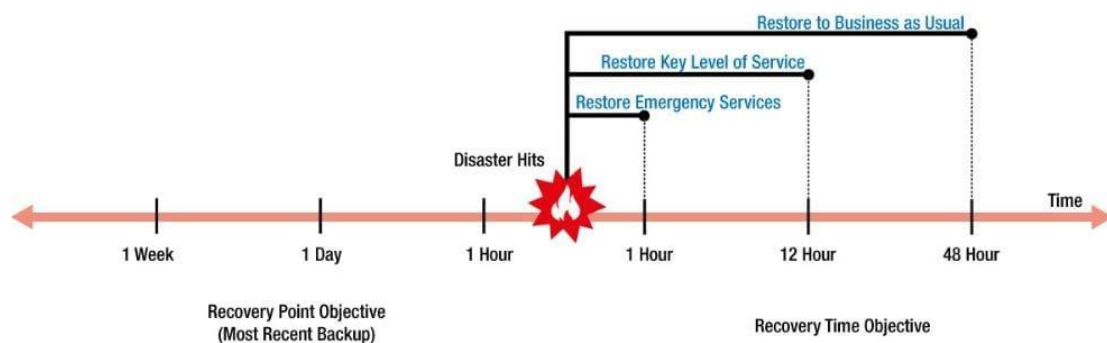
## Disaster Recovery Strategy:

- **Recovery Time Objective (RTO):** The target time to restore systems and applications after a disaster or disruption. For critical systems like web servers, the RTO is 4 hours. For non-critical systems like development environments, the RTO is 24 hours.



- **Recovery Point Objective (RPO):** The maximum targeted period in which data might be lost from an IT service due to a major incident. The RPO for all systems is 15 minutes, meaning we will not lose more than 15 minutes of data in the event of a disaster.

## Recovery Level Objective (RLO)



| Recovery classes        | RTO                    | RPO                  |
|-------------------------|------------------------|----------------------|
| Continuous availability | <= 1 hour              | <= 1 hour            |
| Advanced recovery       | > 1 hour - <= 72 hours | <2 hours - <72 hours |
| Standard recovery       | > 72 Hr                | Last backup          |
| No recovery             | n/a                    | n/a                  |

- Priority of Virtual Machines: The priority determines the order that VMs will be recovered. Priority 1 VMs must be recovered within the RTO. Priority 2 VMs are recovered as resources allow after Priority 1.

- Priority 1:

- Web Server 1

- Database Server

- File Server

- Priority 2:

- Application Server 1

- Application Server 2

- Development VM 1      - Development VM 2 The disaster recovery plan leverages IBM Cloud Virtual Servers to replicate critical production workloads to a secondary disaster recovery site. Virtual servers are configured for high availability and automated failover in the event the primary site goes offline. Regular testing will validate the recovery process and help meet the defined

RTOs and RPOs. Please let me know if you need any part of the disaster recovery strategy explained further.