CAD\_Phase1

Project name:

3118-Disaster Recovery with IBM Cloud Virtual Servers

PROBLEM STATEMENT:

Developing an effective disaster recovery strategy for critical business applications hosted on IBM Cloud virtual servers, ensuring minimal downtime and data loss in the event of unforeseen disasters

ABSTRACT:

The project aims to address the critical need for disaster recovery in the context of IBM Cloud virtual servers. The primary objective is to ensure the uninterrupted availability of data and services even in the face of unforeseen disasters, such as hardware failures or data breaches. This comprehensive report delves into the proposed solution, detailing automated backup strategies, failover mechanisms, and the software and hardware components used. Additionally, it assesses the shortcomings of the existing system, highlighting the necessity of the proposed changes.

PROPOSED SYSTEM :

In this section, we provide an in-depth introduction to the proposed system. It outlines the core components and strategies that will be employed to enhance disaster recovery. Key elements of the proposed system include automated data backups, seamless failover mechanisms, robust monitoring, and high-availability infrastructure. Each of these components is essential to achieving the project's objectives.

This page focuses exclusively on automated backup strategies within the proposed system. It discusses the importance of regular data backups and how automation ensures data integrity and availability during disasters. Details about backup frequencies, storage locations, and backup tools will be covered here.

Failover mechanisms are at the heart of disaster recovery. Page 5 delves into the failover strategies proposed in the project. It explains how these mechanisms can seamlessly transition services to backup servers in the event of hardware or software failures. Load balancing, virtual networking, and rapid failover detection will be explored in depth.

Monitoring and alerting systems play a crucial role in proactively identifying issues and minimizing downtime. Page 6 outlines the monitoring tools and practices that will be implemented in the proposed system. It also discusses how alerts will trigger immediate actions to address potential problems.

High availability is a cornerstone of the proposed system. This page focuses on the redundant hardware infrastructure and load balancers that will be used to maintain service availability, even in the face of hardware failures or maintenance activities.

SOFTWARE/HARDWARE USED:

A comprehensive overview of the software and hardware components employed in the proposed system is presented on this page. It discusses the rationale behind the choice of IBM Cloud virtual servers, backup software, load balancers, monitoring tools, and redundant hardware. This section provides insight into the technological foundations of the project.

EXISTING SYSTEM:

Evaluating the existing system's limitations and risks is essential to understand why the proposed changes are necessary. This page delves into the vulnerabilities and shortcomings of relying on manual backup processes and limited failover capabilities, emphasizing the need for a robust disaster recovery solution.

CONCLUSION:

It underscores the importance of a well-designed disaster recovery strategy for IBM Cloud virtual servers. Additionally, it highlights the potential benefits, including reduced downtime, minimized data loss, and enhanced service reliability, that the proposed system can bring to the organization.