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DISASTER RECOVERY STRATEGIES USING ORACLE DATAGUARD

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ABSTRACT

In an increasingly digital world, organizations face significant risks from data loss due to various disasters, including natural calamities, system failures, and cyber attacks. Effective disaster recovery (DR) strategies are critical to ensuring business continuity and minimizing downtime. This paper examines the implementation of Oracle Data Guard as a robust solution for disaster recovery in database management systems. By leveraging Oracle Data Guard, organizations can achieve real-time data protection, seamless failover processes, and enhanced data availability. The study highlights the architecture of Oracle Data Guard, its various configurations (such as physical and logical standby databases), and best practices for implementation. Furthermore, we present empirical evidence demonstrating the effectiveness of Oracle Data Guard in reducing recovery time objectives (RTO) and recovery point objectives (RPO) compared to traditional backup methods. The findings underscore the significance of adopting Oracle Data Guard within comprehensive disaster recovery planning frameworks to enhance organizational resilience and ensure data integrity.

KEYWORDS: *Disaster Recovery, Oracle Data Guard Business, Continuity Data Protection, Recovery Time Objective (RTO), Recovery Point Objective (RPO), Standby Database, Database Management Systems (DBMS)*

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