**DISASTER RECOVERY MECHANISM WITH ACTIVE STORAGE REPLICATION AND DNS FAILOVER IN CLOUD VIRTUAL MACHINE**

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**ABSTRACT**

The Domain Name Service (DNS) is a vital service on the Internet. It allows for higher-profile functionalities like load balancing and improved content distribution, in addition to simple translation.DNS is envisioned as an elastic and reliable service in the cloud, supporting failover mechanisms, decentralized configuration, and multi-tenant isolation. The problem arises where a particular DNS is not able to point an IP address of the server because of heavy traffic, DDoS attack, system crash and much more reasons such as if multiple request is sent to the server then the server cant handle everything at same this leads to network traffic so the crash in server takes place. During this period there are huge chances for an organization to be a victim of huge, valuable data loss and have downtime for a certain period. This will cause a billion dollar business impact and risk of losing data and loss of network connectivity so may not be able to find the information or carry out the actions they need. To overcome this we come up with an approach of DNS Failover with active Replication which is a solution designed to help keep the services online and prevent the servers from Data losses. When systems and services go down DNS failover is used to direct the users to another resource with little to no disruption which has active replication of Data with the current prod Server ie., a database contains two servers if one is failed then another will work with same data without any data loss. The backup server/Replicating server is named as Contingency server (CNR) which has an active storage replication with the Production server preventing Data loss and the other server is backup server which will replicate the data from the active server when any updation takes place in the active server.