

Planning and Implementing a High Availability and Disaster Recovery Solution

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Lab Summary 7

1/26/2020

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The company wants IT management to assess and configure the new high availability features and technologies. Also, the admin should consider the disaster recovery solution by reviewing the current strategy after a recent incident in London. The finance management also looks to see if there are some cost savings by using the Hyper-V cluster.

In order to meet these business requirements, the keywords are cost savings, less than 1 min downtime, and recovery of critical virtual machines. In order to have high availability, all the parts of an application and the infrastructure should be highly available in data center infrastructure, server hardware, storage, networks, internet, and services.

Failover clustering provides high availability for data, but it should have multiple hardware and software, and the applications should have failover clustering configurations. The considerations with Hyper-V virtual machines are Host clustering, Guest clustering, and NLB. In this case, it falls into Guest clustering because it uses virtual machines as failover cluster nodes.

Since one of the requirements is to have less than 1 min downtime, the technology to use for failover is live migration because it is the only zero downtime. There are various requirements for live migration. Basically, it should have two or more components of Hyper-V servers, disaster recovery solution, storage spaces, and good connection. Also, another technology is Hyper-V Replica to provide disaster recovery and also have test or manual failovers. It merely replicates a single virtual machine to another host over the WAN or LAN networks.

When moving data from LON-SVR1-B to C drive, this process should be done in order to prevent any loss of data. In this technology, the virtual machines should have a storage cluster

in order to have zero downtime. Storage migration is used in this step because the virtual machine storage is moved to another location on the same server.

When configuring Hyper-V Replica, there are two hosts: LON-HOST1 and LON-HOST2. Host 2 cannot be used as a replica server without configuring it as a replica server. After setting it as the replica server, both hosts should allow each other by configuring Windows Firewall. The Hyper-V Replica is implemented to test a planned failover.

This lab provided the right amount of knowledge of high availability and disability recovery solution options with other technologies. The steps are crucial in the lab, but also the requirements and business solutions for other departments should be considered.

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