Planning and Configuring Storage Technologies and Components

Eli Chang

MSSA Cohort #2

Diagram Exercise 3

1/18/2020

Planning and Configuring Storage Technologies and Components

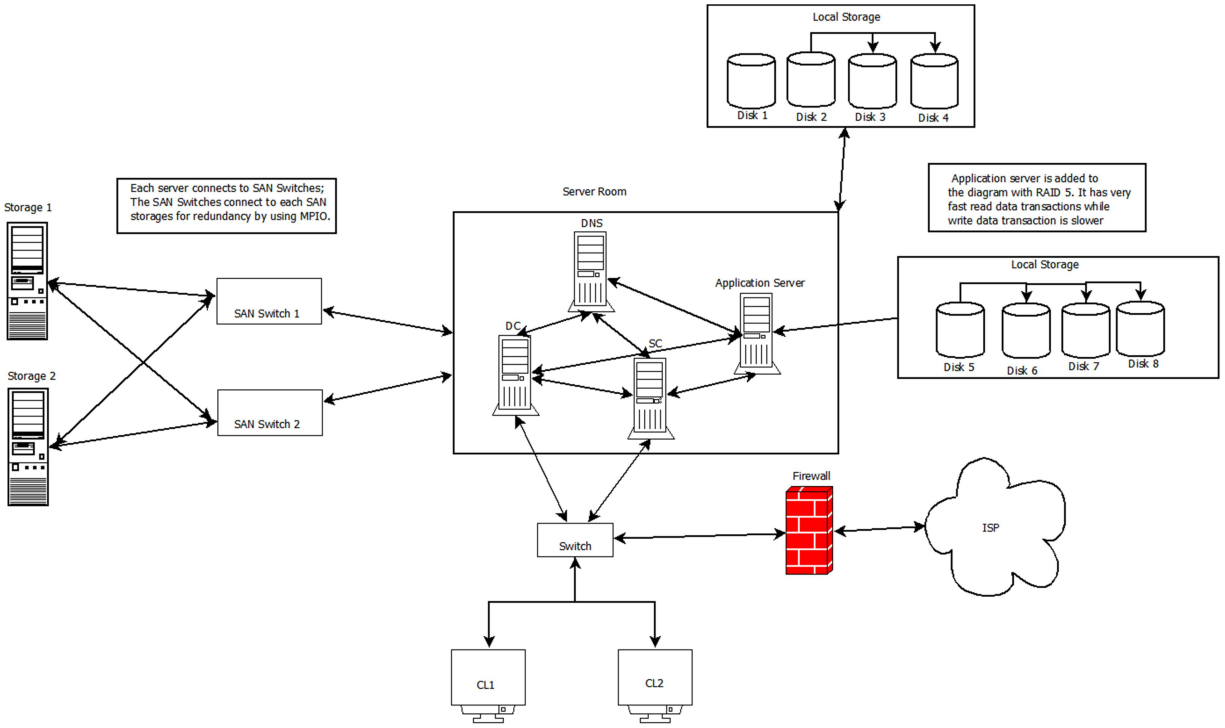
In the diagram, each server communicates with each other and receives from and sends data to switches. First, in the scenario, the storage administrator creates and configures an iSCSI protocol. Storages using SCSI use TCP/IP network while iSCSI carries SCSI commands or the networks. The switches are built-in iSCSI protocol.

There are three different storage solutions: DAS, NAS, and SAN. DAS is a good option for the lowest cost and least complex solution, whereas it requires more administrative overhead, which does not meet the proposals. NAS does not refer to the shared folder solutions. SAN is the best option for business needs because it is flexible and high performing and provides the most features.

MPIO is also configured in the iSCSI initiator. The multi path I/O is using dual switches and physically connects redundantly. It has two switches, and they connect to each SAN storage for redundancy. The maximum throughput for high performance can provide high availability so that if one failed, there are other paths.

Also, the file/ application server is added to the server room because other RAIDs can be used in different scenarios. Other components will be added more in the future as I understand the use of the components. RAID 5 is a good system for application and file servers because they have limited data drives. RAID 5 has a good read data speed, whereas the write data speed is slower because the parity-calculating time takes some time.

Grammarly processed


Local Storage
Disk 1
Disk 2
Disk 3
Disk 4
Each server connects to SAN Switches; The SAN Switches connect to each SAN storages for redundancy by using MPIO.
Server Room
Application server is added to the diagram with RAID 5. It has very fast read data transactions while write data transaction is slower
Storage 1
DNS
Application Server
Local Storage
SAN Switch 1
DC
SC
Disk 5
Disk 6
Disk 7
Disk 8
Storage 2
SAN Switch 2
Firewall
ISP
Switch
CL1
CL2