
Project Name: Implementation of SAN Storage on database server
Company: Telehop Communications Inc.

Scope:

The document is designed to provide guidelines to implement SAN Storage in a database environment. The issues identified needs repetitive testing and analysis before it is implemented in a production environment.

Process Overview:

The plan is broadly classified in two phases;

1. Hardware Installation and Configuration
2. Database Implementation

Hardware Specifications:

Model Number : AX4-5
Manufacturer : DELL
Capacity : 24TB of raw storage capacity with SAS drives or 60TB with SATA II
RAID Level : 5

Project Details:

Key Persons : System Administrator & Database Administrator
Start Date : 09-June-2008
End Date : 12-June-2008

Implementation Plan:

Phase I

- Create virtual disks with smaller size and then assign them to server
- Running schedule jobs to write and read data frequently from SAN Storage
- Testing of snapshot feature of SAN storage
- Create 2 disk pools of SAS storage and SATAII storage individually
- Create a virtual disk with 600GB capacity on SAS storage and a SATAII storage with capacity of 1TB
- Assign these virtual disks to TEST Server with drive letter X (SAS) & Y (SATAII)
- After testing is complete on TEST Server for drive performance, unassign virtual disks from TEST Server and destroy virtual disk on SATAII storage.
- Create a virtual disk with 500 GB on SATAII storage
- Assign both virtual disk on SAS and SATAII to production server with drive letters X (SAS) & Y (SATAII)

Phase II

- Testing of SAN drives on TEST Server by copying huge amount of SQL Server database Backup on SAN drive and then restoring the same database backup on Server SQL Server database

- If testing is successfully, moving the live SQL Server databases from local hard drive to preconfigured SAN drive on same server
- Checking the database for integrity and performance
- Monitoring SAN drive performance

Conclusion:

The process of Implementing SAN Storage on a database server was successful.