

Choice Case Study

Server Consolidation for Dun & Bradstreet Information Services India Pvt Ltd

Project Background and Challenge

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D&B decided to deploy Storage Area Network (SAN) to consolidate the distributed storage.

D&B was looking for consolidating more than 20 servers running in DAS mode need to convert Centralize Storage for easy manage and scalable. Due to the minimal number of file servers a separate NAS deployment is not considered at this time. Out of the 20 odd server's vast majority of them are application servers. The application servers are all Windows-2000 or above based and at present time no Unix/Linux or other flavors of O/S are used. All the application servers are using SQL as the backend database. The environment also includes MS-Exchange mail servers. Some of these applications are being accessed remotely by D&B branches across India and also some tele-marketing agencies. The availability of the applications is of utmost priority.

D&B decided to deploy Storage Area Network (SAN) to consolidate the distributed storage attached directly to more than 25 servers. Due to the nature of current deployment, the storage system can not scale independent of the servers. Servers were procured to augment storage needs. This has caused rapid proliferation of servers in the datacenter, increased power needs, cooling needs and most importantly escalation of system administration costs. In order to mitigate these issues and gain additional benefits such as capacity on demand, agile datacenter and increased business efficiency Dun and Bradstreet then enlisted Choice Solutions Ltd. as consultants to assist them in analysis, technology evaluation, vendor identification, SAN deployment, data migration and finally production cutover.

Choice Solutions Ltd. in conjunction with the D&B technical team worked closely for this project.

HP EVA iSCSI Storage

Choice Solutions Ltd. in conjunction with the D&B technical team worked closely on this project. This was to make sure that the solutions provided would overcome the limitations and support for the environment. Server inventory and applications were run to understand the present utilizations and calculate the storage capacity. The initial analysis on the storage concluded at least a usable space of 3 TB is needed. With a 20% growth factor normalized with the help of utilization trends and extended for a period of three years, it is estimated to acquire 4.5 TB of total storage space. Due to the semi mission critical nature of several applications, a low cost iSCSI storage network protocol was adopted for many of the servers. With some applications remaining in the mission critical area, a FC storage network protocol was planned. This mixing of high performance but high cost FC and low cost but good performance of iSCSI provided the optimal deployment model to achieve value engineering which is nothing but cost effective yet effective storage. Then finally we have suggested server hardware required for consolidating 20 servers into few servers and iSCSI storage system.

Key Solution Components

HP Hardware: HP EVA Storage

Client Benefit

This architecture provided the following benefits:

- Ensures that data storage needs for different departments and business units as well as can be addressed in a capacity on demand fashion over the next 3 years (minimum established ROI period)
- Provide seamless scaling of computing resources in case the business volume expands, especially scaling of data storage repositories
- Serve various data types such as file based or block based with minimal deployment effort.
- Decide a cost effective storage deployment with a combination of storage protocols such as iSCSI and FC (Fibre Channel)
- Centralized administration of all data storage including backup, recovery and archival.
- Reduced TCO and increased ROI in other words, demonstrate measurable cost savings.
- Support both fibre channel and SATA drive technologies, running in a combined simultaneous environment. SAS is also desired.
- Support multiple RAID levels running in a combined simultaneous environment.
- Enable data to automatically migrate/progress to different tiers of storage based on user defined rules or QoS settings.

A cost effective storage deployment with a combination of storage protocols such as iSCSI and FC (Fibre Channel).

About Choice Solutions

Established in 1991 Choice Solutions Ltd. is a leading IT and Facilities solutions provider. Choice Solutions Ltd. business comprises of Six different practices, namely

IMS

- Desktop, Server, Network, Storage, Support, OS, Assets, Apps, Non IT
- Hardware - A-Add, M-Modify, I-Install, C-Change, R-Repair
- Assets, Security, Software Distribution, Upgrades

Networking

- Packaged Services Monitoring & Management
- Products, Security, Design, Deploy, Maintain
- Auditing & Compliance, SOC

Datacenter

- DC Audit, Monitor & Manage, Training
- Assess, Design, Built, Deploy, Disaster Recovery

Consulting

- Business Consulting, CIO & Technology Services, Physical Security, Power Devices, IT Consulting
- DC Consulting, ERP, CRM & Custom Apps

Cloud Computing

- Cold Site – Backup, Disaster Recovery
- Hot Site – HaaS, Software, Manage
- Public Cloud, Private Cloud, Hybrid Cloud
- CaaS, License Software, IaaS
- Disaster Recovery

Power

- Power Audit, Equipment Management
- Physical Security, Power Devices
- Power Saving Devices
- Design & Audit
- Renewable Energy Products