

Re: Exchange 2007 CCR design

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- *From:* "John Fullbright" <fjohn@donotspamnetappdotcom>
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There's no question that there is a lot of value add to using SAN storage. Exactly what that value add is depends on the specific SAN, and how that applies to you organization depends on your organization's specific needs.

"Brian Henderson" <BrianHenderson@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:9282A489-641B-4EB2-A1D7-D95C45489211@xxxxxxxxxxxxxxxxxxxx

No one really answered your question "Should we move from DAS to SAN?"

I'd say Yes. Here are the benefits:

Centralized Management Allows for Higher Capacity Utilization.

Instead of managing each server's utilization separately, a free space pool can be managed from a central location to accommodate greater scalability and constantly changing requirements.

Greater Resiliency to Failures through Shared Resource Distribution.

Disk failures on a direct-attached-storage (DAS) array are widely "felt" by users who reside on that mailbox server. When databases are stored on a storage area networks, users are distributed across fault-tolerant architectures that are able to withstand various types of outages that other customers have faced before. so that when failures do happen, users are likely to not even notice.

LAN-Free Snapshot Backups and Replication Can Eliminate Backup Windows.

Streaming backups often take many hours and consume the majority of CPU operations during the backup process. SAN-based snapshot technologies allow Exchange to be backed up with little to no downtime or impact to production

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servers. Depending on the SW, it is simple to add snapshots into your current backup architecture – without throwing away your existing backup software. Replication software can also be combined with these snapshot technologies to deliver a LAN-free offsite backup.

Synchronous Replication Allows for Automated, Intelligent DR with Zero Data Loss

Some of the built-in replication features for Exchange are good enough for small environments, but these features also require a lot of disk space, consume host CPU resources, and network bandwidth. They also put companies at risk of losing data (the amount of data in uncommitted log files). Today, only SAN-based synchronous replication offers the ability to have a failure and not lose any data in transit. In addition, you have some stuff like EMC's Cluster Enablers which can be combined with synchronous replication technologies in order to provide a zero-data loss solution with automatic failover.

Enable Advanced Capabilities Such as Virtualization, Global Archiving, Single Mailbox Restore, Image Provisioning, Zero Data Loss Replication, and More

Companies that consolidate onto a SAN immediately see a wide-variety of benefits they hadn't seen in distributed (DAS) environments. A SAN can provide an optimal framework for a virtualized infrastructure utilizing VMware ESX or Microsoft's upcoming Hyper-V. Archiving can be set up to eliminate PST files and enable true SIS (single instance storage) across all mailbox servers. Dedupe technologies can allow incremental-forever functionality so that only the smallest changes ever get sent across the network. There are also some cool technologies that can open up restored single mailboxes from a snapshot copy of Exchange – without requiring another Exchange license – or performing brick-level backups. Snapshot copies are also useful for keeping gold copies of server images and for testing service pack upgrades.

Lower Overall Costs of Management and Operation

Although cutting out the SAN from the budget will certainly save some money, the operational costs of an environment utilizing a SAN are actually lower than deploying direct attached storage (DAS). Exchange CCR and SCR still require significant amounts of servers, disk space, floor space, power, and

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cooling. It takes more time and effort to manage an environment like this – higher operational expenses. With a SAN, a single person can manage more terabytes, and handle advanced features in a centralized location as opposed to small islands of server-attached storage. This is much more efficient and results in much lower overall costs.

HTH
B

"Chris" wrote:

We are currently running Exchange 2003 two node cluster (A/P) using EMC SAN.
Moving to Exchange 2007 we plan to achieve the same availability by using CCR.
The question is that whether we should SAN to DAS? Besides the cost (SAN is expensive since we need to add new DAE) what are the pros and cons?

Thanks.