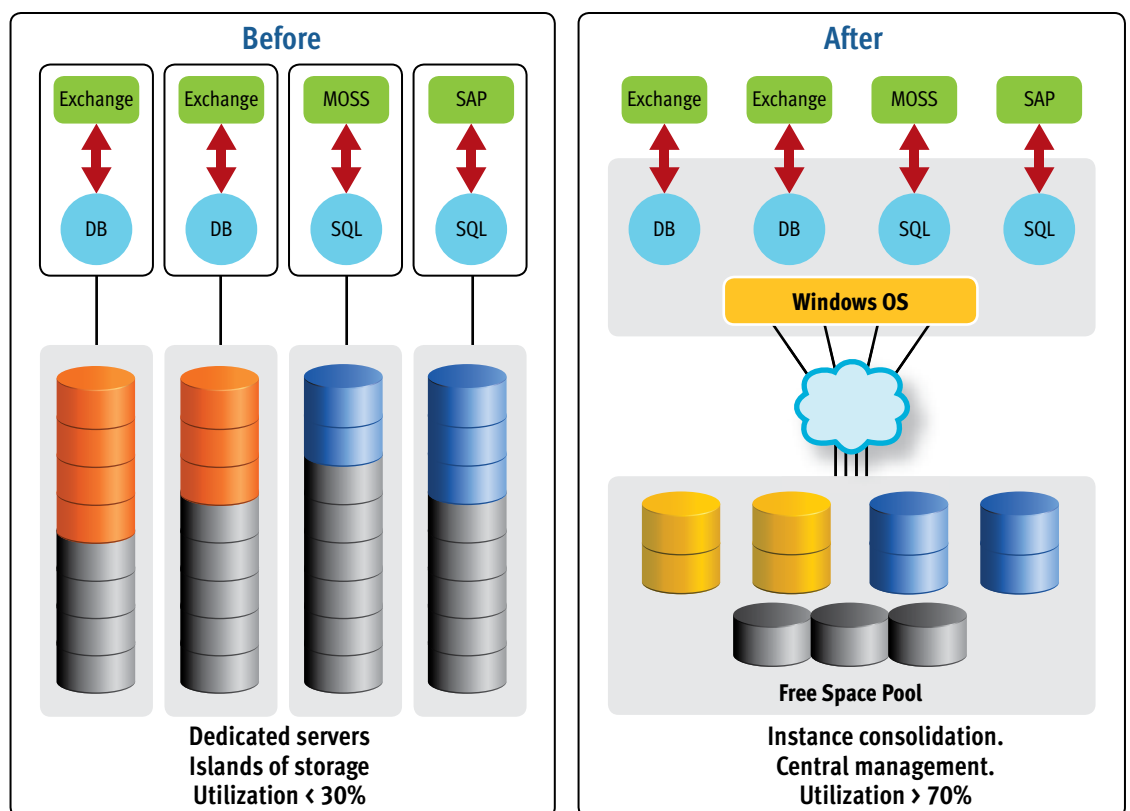


Top 6 Reasons to Use a SAN for Exchange 2007

Exchange Server 2007 is now built upon a 64-bit platform which has delivered improvements in memory utilization, data access, and I/O operations. In some cases, these improvements lower the overall disk performance requirements of Exchange mailbox servers (when combined with an increase of RAM). Unfortunately, the new positioning of Exchange 2007 has been misinterpreted by some customers as “you don’t need (expensive) storage area networks (SANs).” Let’s consider why a SAN is still a great business decision for Exchange 2007:

1 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.



2 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 EMC storage area networks, users are distributed across fault-tolerant architectures that are able to withstand various types of outages that customers have faced before... so that when failures do happen, users are likely to not even notice.

3 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 servers. With EMC’s Replication Manager, 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.

4 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, EMC's Cluster Enablers (i.e. SRDF/CE) can be placed atop of synchronous replication technologies in order to provide a zero-data loss solution with automatic failover. EMC also has a wide range of replication solutions to meet the needs of customers with mixed operating systems and environments.

5 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 Server™. Archiving can be set up to eliminate PST files and enable true SIS (single-instance storage) across all mailbox servers. Technologies like EMC Avamar® can allow incremental-forever functionality so that only the smallest changes ever get sent across the network. EMC offers technologies can open up restore single mailboxes from a Replication Manager-created 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.

6 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 require significant amounts of servers, disk space, floor space, power, and 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.

A SAN is a great business choice for Exchange 2007

Right now, Windows administrators, SQL DBAs, and Exchange administrators need to be reminded about the benefits of a consolidated storage infrastructure. EMC's capabilities offer the ability to replicate data with little to no data loss, the ability to support multiple Microsoft and non-Microsoft applications and databases, as well as the oft-overlooked benefit of not impacting the production host during replication.

EMC has the right people and technology to put together robust solutions for Exchange 2007. EMC's SAN technology has undergone extensive testing and validation both by EMC and Microsoft over the last ten years. Our performance capabilities are well understood and on display at Microsoft's Exchange System Review Program (ESRP). EMC not only has the most listings for a SAN vendor, they also have the most advanced listings—incorporating snapshot technology and advanced replication technology. EMC employs highly-skilled and qualified Microsoft Rangers® and has dedicated Microsoft-certified personnel who plan, design, and manage complex Exchange deployments every day.



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