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Storage Consolidation

Hiroshi Yoshida
VLSI Design and Education Center, University
of Tokyo, Tokyo, Japan

Definition

The processes of centralizing the storage infrastructure resources of multiple servers to reduce management costs, achieve better service levels, and strengthen control over data.

Key Points

In small scale IT systems, each server has its own dedicated storage infrastructure (internal disks or DAS). However, as server numbers and the amount and importance of business data stored in the storage infrastructure increases, managing such dedicated storage infrastructure resources per server becomes difficult and expensive. To solve this problem, the dedicated infrastructure resources of servers are centralized to storage infrastructure resources shared by all servers, using storage networking technologies such as SAN and/or NAS.

Once dedicated storage infrastructure resources are consolidated to SAN and/or NAS resources, storage management operations can also be consolidated and centralized. For

example, data backup is performed only once for the consolidated storage instead of individually for each server. This greatly reduces the cost of storage management. Another advantage is that expensive storage solutions such as disaster recovery using replicated data in remote sites can be shared by multiple servers with consolidated storage. The result is much improved data availability that can be achieved cost-effectively. In addition, from a data management and data security viewpoint; rather than having data spread over multiple servers, often managed by multiple administrators or divisions and based on disparate policies, data stored in consolidated storage can be managed based on more consistent policies.

Cross-References

- [DAS](#)
- [ILM](#)
- [NAS](#)
- [SAN](#)
- [SRM](#)
- [Storage Network Architectures](#)
- [Storage Virtualization](#)