Software Defined Storage Solution

TEAMMAX

Introduction

Software Defined Storage (SDS) is revolutionizing data storage by abstracting the storage hardware, enabling more efficient, flexible, and scalable data management. This solution provides a modern approach to storage, addressing the limitations of traditional architectures by offering agility, scalability, and cost-effectiveness.

Key Benefits

1. Scalability: SDS allows organizations to scale their storage infrastructure as needed without significant disruptions. It supports a cluster size from 3 to 1,024 nodes, ensuring high availability and seamless capacity expansion.

2. Cost-Effectiveness: Utilizing an open platform with no vendor lock-in, SDS reduces costs by supporting commodity hardware. This approach minimizes initial investment and ongoing operational costs.

3. Agility: SDS simplifies storage management through automation and a unified platform that supports various storage types and protocols. This flexibility enables quick adaptation to changing business requirements.

Features of AVSTOR SDS

1. Unified Storage Platform: AVSTOR SDS integrates multiple storage types (block, file, and object) into a single platform, based on Ceph. This consolidation supports various protocols like NFS, CIFS, FTP, iSCSI, and FC, providing a versatile storage solution.

2. Optimized I/O Engine: The self-developed storage I/O engine enhances performance and efficiency, ensuring smooth data operations across the storage cluster.

3. Seamless Data Migration: AVSTOR SDS supports seamless data migration, enabling organizations to transition from legacy systems without data loss or significant downtime.

4. Rich Features for Object Storage: Includes features like S3 object storage, data passage between file systems (CIFS/NFS) and S3, ensuring interoperability and data protection.

5. Performance and Data Protection: Offers tunable data protection levels, including replication and erasure coding, to balance performance and reliability. The system supports online node expansion and maintenance without service impact.

6. Management Console: A web-based management console provides an intuitive interface for monitoring and managing the storage environment, offering detailed insights into capacity, performance, and health status.

Performance and Use Cases

1. High Performance: SDS is designed to handle various performance tiers, making it suitable for different applications such as databases, virtualization, and archival storage. Performance tests indicate superior IOPS and latency metrics, demonstrating its capability to support demanding workloads.

2. Diverse Application Scenarios:
   - Big Data and Analytics: High-performance storage for large datasets and complex analytics workloads.
   - Enterprise File Sharing and Backup: Efficient and secure file sharing, backup, and archiving solutions.
   - Media and Multimedia: Robust storage for media broadcasting, surveillance, and online training.
   - Cloud Infrastructure: Supports public, private, and hybrid cloud environments with scalable and reliable storage solutions.

Unique Advantages

1. All-in-One Platform: Supports almost all storage protocols simultaneously, providing a comprehensive solution for diverse storage needs.

2. Flexible Cluster Management: Supports large-scale deployments with high availability and no single point of failure, ensuring robust and reliable storage infrastructure.

3. Advanced Data Protection: Offers configurable resiliency levels and supports various data protection mechanisms, including remote replication and snapshot capabilities.

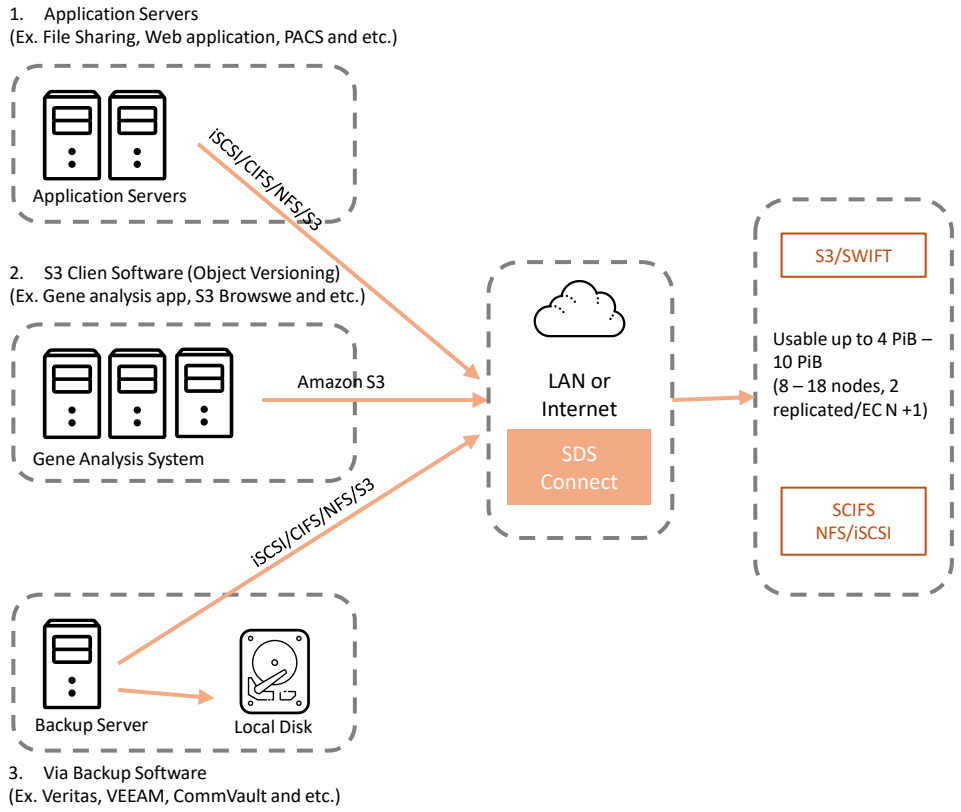
4. Performance Tiering: Allows grouping of different disk types into performance-based storage pools, optimizing storage for specific application needs.

5. Integration with Existing Infrastructure: Supports integration with AD/LDAP, enabling seamless identity management and access control across the storage environment.

Conclusion

AVSTOR SDS is a powerful solution for organizations seeking to modernize their storage infrastructure. With its scalable, cost-effective, and agile approach, it addresses the challenges of traditional storage architectures, providing a robust platform for managing today's data-driven enterprises.

www.tmsi.com.tw
E-mail: support@tmsi.com.tw



Usable Capacity (TiB)	iSCSI	NAS (NFS/CIFS)	S3	Hardward RAID5 & 2 Replicated(RF2) / Erasure Code N+1 (RF2)	Connectivity	3 Years Warranty & Support	Performance Requirement
200 – 500		Yes	Yes	Yes	10/25 GbE	Yes	>= 1200 MBps
600 – 1024	Yes	Yes	Yes	Yes	25 GbE	Yes	>= 2000 MBps
1024 – 3072	Yes	Yes	Yes	Yes	25 GbE	Yes	>= 2500 MBps
4096– 10240	Yes	Yes	Yes	Yes	100 GbE	Yes	>= 4000 MBps