AVSTOR mSCALE Software Defined Storage (SDS) Overview

ACTSVISION

Introduction

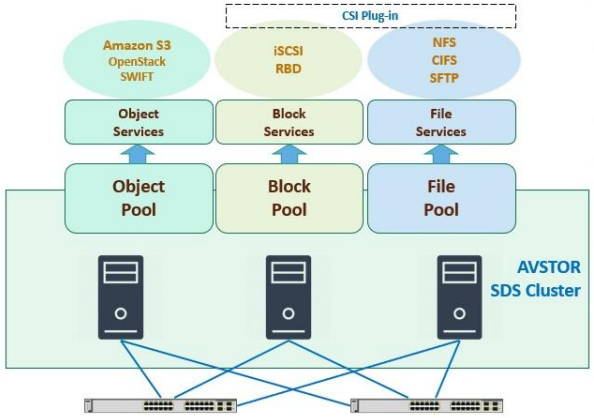
AVSTOR mSCALE Software-Defined Storage (SDS) is enterprise-grade unified storage platform with scale-out architecture (Ceph based), addressing the limitations of traditional architectures by offering agility, scalability, and cost-effectiveness. With its optimized self-developed storage I/O engine enhances performance and efficiency, providing a comprehensive solution for diverse storage needs.

Key Benefits

1. Agility: AVSTOR mSCALE SDS simplifies storage management through automation and a unified platform that supports a wide range of storage needs and protocols, including block (iSCSI/RBD), file (NFS/CIFS/SFTP), and object storage (S3/SWIFT). This flexibility enables quick adaptation to changing business requirements.

2. Scalability: AVSTOR mSCALE SDS allows organizations to scale their storage infrastructure as needed without service impact. It supports a cluster size from 3 to 1,024 nodes, high availability (HA) and the ability to scale-out capacity and performance seamlessly. (ex. raw capacity= 10PiB with 4U server x 15)

3. Cost-Effectiveness: Utilizing an open X86 platform with no vendor lock-in, AVSTOR mSCALE SDS reduces costs by supporting commodity hardware. This approach minimizes initial investment and ongoing operational costs.



Connectivity: 10/25/100 GbE

Unique Advantages of AVSTOR mSCALE SDS

1. All-in-One Platform: Supports almost all storage protocols simultaneously (iSCSI/RBD, NFS/CIFS/SFTP, S3/SWIFT), it includes a CSI plugin for Container interface use, providing a comprehensive solution for diverse storage needs.

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. Data Protection with Tunable: Offers configurable data protection levels (ex. RF2, RF3) among 2 data protection types: Replicated/ Erasure Code, and supports Rack-aware replication.

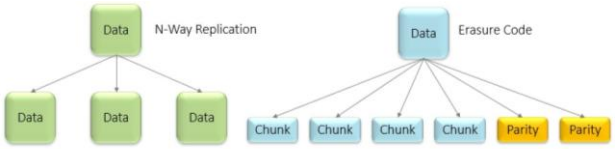
4. Data passage technology between File(CIFS/NFS) and S3.

5. Rich features of S3 including S3 tiering, S3 versioning, S3 audit log.

6. Remote replication: replicate/restore from one AVSTOR mSCALE storage to another AVSTOR mSCALE storage for storage types(Block: iSCSI, File: NFS/CIFS, Object: S3/Swift).

7. Decentralized web-based management console: The web-based management console provides an intuitive interface for monitoring and managing the storage environment without additional software installation, offering detailed insights into capacity, performance, and health status. And it supports the storage management API (RESTful).

Data Protection with Tunable (ex. RF2, RF3), Replicated/ Erasure Code



Usable capacity	Form Factor	Data protection	# of node	# of fault tolerance node	Usable capacity = % of raw capacity
200 TiB	2U	2 replicated and RAID5	3	1	50%
360 TiB	2U	3 replicated and RAID5	5	2	33%
500 TiB	4U	2 replicated and RAID5	3	1	50%
5 PiB	4U	EC (6+2) and RAID5	10	2	75%
8 PiB	4U	EC (7+1) and RAID6	16	1	87.5%

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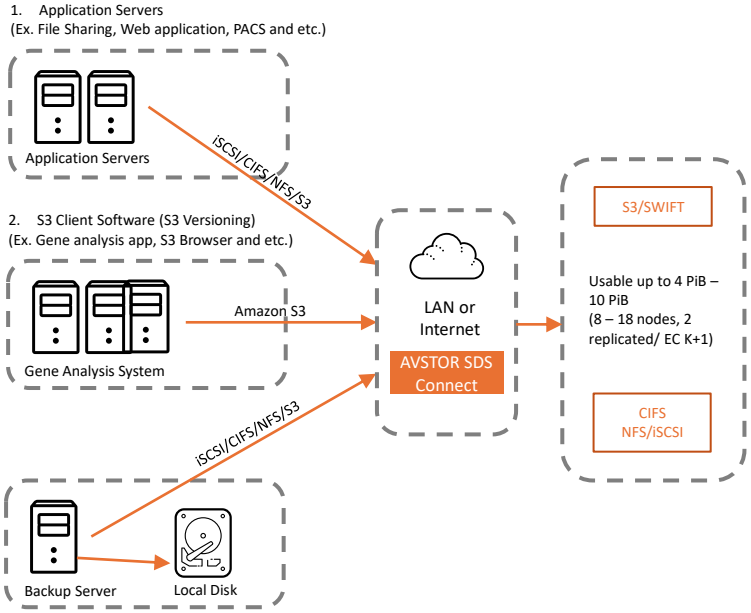
Conclusion

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



Major target customers:

Usable capacity: > 100 TiB, 500TiB, 1PiB, 5PiB or above

Health care: PACS, EMR, HIS, Hot/Cold data tiering(S3), Backup/Archiving
Telco: File sharing, Server virtualization(ex. VMware), Remote Replication
Genome center: AI/ML, Data passage between NFS and S3, Hot/Cold data tiering(S3)
Rich media/multimedia: Media broadcasting, Surveillance, Backup/Archiving
Cloud Service Provider: File sharing, Server virtualization, Backup as Service (ex. Veeam, Commvault, Veritas)

Alternative as other storage brands: NetApp StorageGRID, IBM Redhat Ceph storage, Dell ECS, Dell PowerScale, HPE Ezmeral Data Fabric, and etc.

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