

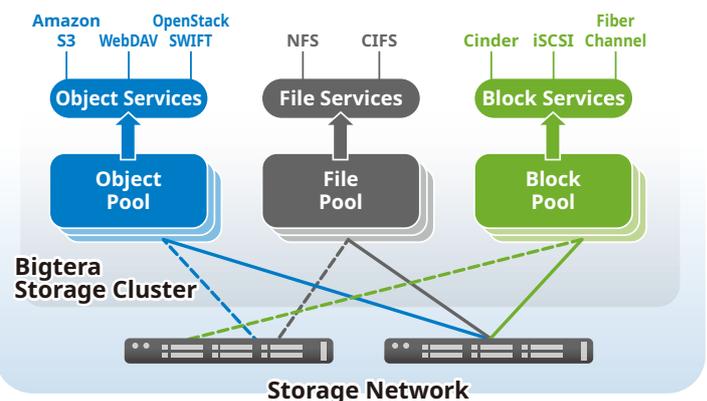


VirtualStor™ Scaler 8.0

Petabyte-Scale Storage That Expands and Defines on Demand



VirtualStor™ Scaler 8.0 is Bigtera's latest generation of software defined distributed storage. Based on the standard X86 storage server, providing S3, NAS, SAN and other storage protocols. Extensive functions, superior performance and reliable data protection, coupled with Bigtera's exclusive S3-to-S3 seamless object migration, are suitable for enterprises or data centers that need to process large amounts of data, such as AI, big data, cloud storage, etc.; for example, telecommunications, medical, education, media, finance and so on.



Product Features

Software Defined / Unified Storage

- **Scale-out architecture:** a distributed storage architecture based on X86 processors that allows for horizontal expansion of capacity and performance.
- **Unified storage:** supporting iSCSI, FC, Cinder RBD, NFS, CIFS, FTP and other protocols, to meet the data access and sharing between a variety of operating systems and virtual platforms.
- **Object storage:** compatible with S3, OpenStack Swift, WebDAV and other object storage protocols, to meet the needs of reading and writing huge amounts of data.

Data Security / High Availability

- **Data redundancy:** supporting 2 - 10 data replicas, EC erasure code N+M data fault-tolerant protection, to ensure that data is not lost when the server fails.
- **Decentralized design:** ensuring that the management of the entire cluster is not affected by any node failure.
- **Hardware RAID support:** automatic data reconstruction and recovery mechanism after hard disk failure to further protect the data availability of the system.
- **Local data protection:** SAN storage supports online snapshot, volume clone, etc. Object storage supports version control, WORM, and Server-Side Encryption (SSE). The NAS shared folder supports the recycle bin.
- **Fault domain:** supporting different fault domain levels, including disk, host, rack, server room, data center, etc.
- **Remote replication:** remote replication across data center, support volumes, folders, S3 buckets, and can also be copied to Amazon S3 cloud storage or other NAS brands, providing multiple levels of data protection and disaster recovery.

Enriched Software Functions / High Read-Write Performance

- **SSD cache:** With the self-developed BigteraStore storage engine, SSD is adopted as caching to improve read-write performance.
- **Multi-tenant storage:** tenants can hierarchically manage their different virtual storage, use different IP gateways, and configure different performances.
- **Seamless data migration:** data migration does not interrupt business. Supporting SAN, NAS, and object storage.
- **Storage consolidation:** consolidating other brands of storage resources into the resource pool, to reuse old equipments for cost saving.
- **QoS policy:** managing the read-write performance of volumes, folders, and even files according to the performance requirements of different applications.
- **Quota:** quotas with different granularity, including storage pools, tenant virtual storage, volumes, folders, S3 bucket and NAS users, and S3 users.
- **Alert notifications:** supporting mail alert, SNMP, and WeChat.
- **Data recovery optimization:** providing incremental recovery and QoS configuration for data recovery.
- **VAAI:** efficiently support for VMware virtualization technology.
- **SSD life prediction:** early warning before SSD life wearing out.
- **AD/LDAP integration:** NAS file system supports Windows AD and LDAP and supports account mapping.
- **Data life cycle management:** supporting object storage life cycle management, and periodically archives cold data to Amazon S3 or other brands of object storage.
- **Server-side Copy:** offloading file copy to the storage server to reduce network traffic to clients and improve file copy performance.

Typical Application Scenarios

Object Storage for Large Amount of Data

Single namespace, no directory tree structure bottleneck, improve the reading and writing efficiency of large number of small files, and support access and retrieval of hundreds of millions of files.



Cloud Platform and Virtualization

Seamlessly connect various cloud management or virtual platforms, meet the storage needs of various virtualization and cloud infrastructure, and simplify the storage architecture.



Storage for multimedia

On-demand expanding storage resource pools provide scalable, high-throughput and high-availability media back-end storage for systems such as non-linear editing, content production, broadcasting, media asset management, and image archiving.



Reuse and consolidate old storage

Seamlessly migrating the data on the old storage to eliminate the pain points that need to stop and interrupt the service when a large number of data are migrated; consolidating the free space on the old storage and further expanding the storage pool.

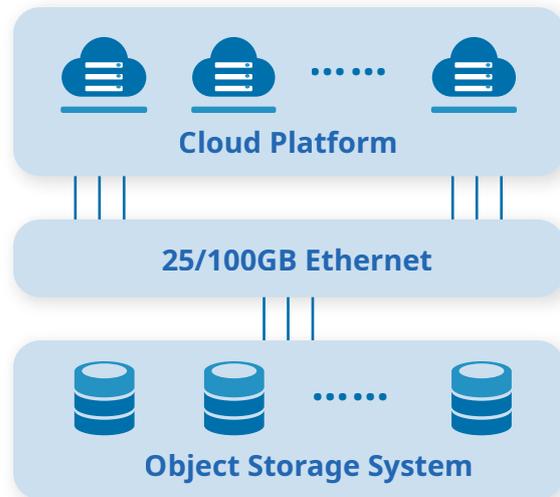


Industrial Solutions

Object Storage Solutions for Data Centers

Solution description: in the fields of biotechnology and earth science, the increasing amount of data processing makes the data center need a huge amount of storage space larger than 2PB, and it also has higher requirements for bandwidth throughput, so as to complete the calculation in a shorter time and improve the prediction accuracy.

Customer value: VirtualStor Scaler object storage meets the requirements of the data center for large volumes and large amounts of simultaneous reads and writes. Object storage has no performance bottleneck on directory structure and can easily provide 12 GB/s total bandwidth throughput, providing a stable and reliable service for the computing center.



Typical Configuration

Types of Storage Nodes	V2120	V4240	V4360	V4600
Form Factor	2U	4U	4U	4U
Number of Hard Drives Per Node	12	24	36	60
Standard Interface	4 * 10Gb	4 * 10Gb	4 * 10Gb	4 * 25Gb
Types of Supporting Hard Drives	SATA/NL-SAS: 2TB/4TB/6TB/8TB/10TB/12TB/14TB			
Types of Cache SSD	SATA SSD / NVMe SSD			
Storage Software	Bigtera VirtualStor™ Scaler 8.0			
Storage Protocol	NFS / CIFS / iSCSI / FC / Amazon S3 / OpenStack Swift / Cinder RBD / WebDAV			
Data Redundancy Mode	RAID mode, multiple copy mode, erasure code mode N+M			

Note: VirtualStor Scaler is deployed from three nodes, and the above configurations are single-node configurations.



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