Product Specification

Hitachi Vantara Virtual Storage One Object (VSP One Object)

Transforming object storage from a passive archive into an active foundation for business innovation

Packaged Offerings

Feature	Details
Nodes	8 nodes with 6 NVME SED slots each
Node Roles	5 worker nodes, 3 management nodes
Memory	512GB RAM
Metadata Storage	Min. 1 NVMe slot per worker node reserved for metadata
External Storage Options	S-Node, VSP One Block* midrange
Network Options	25GbE, 25GbE + 100GbE
Node CPU Options	32/64 core, 64 core
Sustainability	Prepackaged configuration to reduce risk and simplify deployment
Expansion Options	Cluster expansion in 8 worker node increments (4U)

Capacity Specifications

Specification	VSP One Object
Disk Sizes	7.68TB, 15TB NVMe
Max. Number of Attached VSP One Object S-Nodes	40
Max. Number of Attached VSP One Block 20	20
External Storage	VSP One Object S-Node and VSP One Block* midrange
Networking Options	6x 25GbE SFP28, 2x 10Base-T (management) 2x 25GbE SFP28 and 2x 100GbE QSFP28, 2x 10Base-T (management)
Scale-Out Architecture	Disaggregated storage
Objects per Node	1.25B objects per node (7.68TB drive) 2.5B objects per node (15TB drive)
Licensing	Capacity-based Subscription Term License (36 or 60 month)

Capacity Specifications

System Specifications	VSP One Object
Cores	32 cores for management nodes 64 cores for worker nodes
Minimum Cluster	8 nodes
Maximum Cluster	32 nodes
Data Protocols	Amazon Simple Storage Service™ (Amazon S3®)
Height/Width Depth (controller)	448 x 177 x 737 mm (17.63" x 6.96" x 29")
Max. Weight (controller excluding media)	112.71 KG / 248.49 lbs.
Form Factor	4U rackmount
Power Consumption	4470W @ 127 VAC 4377 @ 240 VAC
Total BTU/hour (max)	15256 BTU/hour

* VSP One Block = Hitachi Vantara Virtual Storage Platform One Block

Software Specifications

Specification	VSP One Object
Management Features	• Identity Provider Integration: Supports LDAP and Active Directory integration for role-based access control (RBAC). • Local User Accounts: Allow for user management directly within the system. • User Groups and Roles Management: Enable the creation and management of user groups and roles to streamline access control and permissions. • Storage Component (S-Node) Configuration: Optimizes storage performance and capacity. • Service Configuration and Scaling: Supports configuration and scaling of services to meet varying workload demands and ensure optimal performance.
Software Enhancements	• Distributed Database Enhancements: Improvements aim at increasing overall system scalability and stability. • Rearchitected Object Storage Software: Based on Kubernetes®, this rearchitecture enhances the efficiency and flexibility of object storage. • Native K8s® and Rancher® management platform: Provide ease of deployment, configurability, flexibility and scalability to meet workload demands.
Intelligent Data Services	• S3 Fidelity: Ensures compatibility with S3 APIs. • S3 Object Lock (compliance mode): Prevents object deletion for a specified retention period. • S3 Select API, S3 SSE-S3 APIs, S3 Expiration Lifecycle Policies (metadata maintenance, multiple functions, independent services and event-driven). • PII (personally identifiable information) service: Automatically identify PII data within objects, empowering organizations to stay ahead of regulatory demands. • Amazon S3 table buckets and Apache Iceberg™ catalog compatibility: Unlocking faster analytics on object storage.
Data Protection	**EC (Erasure Coding) Storage Classes** **Supported Classes:** • 1+0: Single data block with no redundancy. • 1+1: Single data block with one redundant block for fault tolerance. • 3+2: Three data blocks with two redundant blocks for enhanced fault tolerance. • Flexible EC configuration is also supported on top of the 1+0, 1+1 and 3+2 EC storage classes. **Disaster Recovery:** • Async Replication for Disaster Recovery: This feature supports disaster recovery by asynchronously replicating data to geographically distant sites, ensuring data availability and integrity without impacting performance. • Async Replication for Business Continuity (BC): This feature provides BC support through asynchronous replication to geographically distant sites. **Backup and Recovery:** • Fast backup ingest/restore, disaster recovery, ransomware protection, tape alternative and cloud backup.
Supportability Features	• Notifications: Event notifications via syslog and SMTP. • Monitoring: Prometheus metrics, Grafana dashboards.
Security Features and Certification	• DARE Licensing (S-Node). • Data-at-rest encryption licensing for secure nodes. • Authentication and authorization protocols: SAML, OIDC, MFA, etc. • External KMS support: Interoperable with any external key management server that is compatible with KMIP V1.3 or later. • Client and server certificate management: Manages certificates for secure communication. • Compliance and security certifications: Meet SEC-17A compliance and other certifications. • Legal hold: Ensures data cannot be deleted until the hold is removed. • Versioning: The ability to preserve, retrieve and restore multiple versions of objects within a bucket. • Encryption in transit: All data transmissions are protected with mTLS encryption. • FIPS 140-2 certified library (s-node): Uses FIPS certified cryptographic library for secure nodes.

About Hitachi Vantara

Hitachi Vantara, a Hitachi, Ltd. subsidiary, is the data foundation for innovation. We build resilient data storage and infrastructure the world's innovators rely on.

Learn more →

Hitachi Vantara

Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact

HV-BTD-PS-Virtual-Storage-One-Object-25Sept25-A