

Datasheet

Remove the Chaos of Data Complexity with Virtual Storage Platform One Block Storage Appliance

Virtual Storage Platform One (VSP One) Block offers hassle-free enterprise-class block storage with certified sustainability for mission-critical applications.

Midrange storage is mission-critical infrastructure that must overcome complex challenges, including addressing unparalleled data growth and increasingly distributed

infrastructure, prioritizing eco-friendly data center products to achieve sustainability goals, needing different storage to meet diverse workloads and user requirements, and keeping data center infrastructure modernized without data migrations.

Mixing different systems from multiple vendors to meet diverse workload requirements creates problems. Today's businesses need midrange storage with the highest availability, capacity, and performance to support all workloads.

Introducing VSP One Block

With VSP One Block, you have the flexibility to choose the optimal solution to meet the specific demands of your workload. Selecting between Triple-Level Cell (TLC) and Quad-Level Cell (QLC) media depends on performance needs and overall cost considerations. VSP One Block with TLC flash is ideal for scenarios requiring superior performance and greater endurance, while QLC is advantageous for workloads that prioritize high-capacity and cost-effective storage where data is infrequently modified.

TLC media excels in mixed read/write environments, delivering faster write speeds, lower read and write latencies, and a higher level of reliability for intensive, high-transaction workloads. It's well-suited for applications that demand sustained performance and durability, making it the preferred choice for operationally intensive data environments.

QLC media provides a more economical solution for those seeking an all-flash option that thrives in read-intensive applications, such as data lakes, large-scale analytics, and archiving and offers high capacity at a lower cost per gigabyte. VSP One Block with QLC is particularly well-suited for workloads where data access is infrequent, like

VSP One Block Specifications

- 3.6PBe and 32 host ports in 2 rack units
- 4:1 No Questions Asked Effective Capacity Guarantee¹
- 100% Data Availability Guarantee across the entire portfolio
- 256GB/s Fibre bandwidth
- Choose TLC or QLC solution

[Learn more](#)

backup, disaster recovery, and long-term data retention. Additionally, for large-scale data storage, QLC's higher density helps minimize footprint and reduce overall costs, making it a strategic choice for organizations focused on budget efficiency without compromising on storage capacity. VSP One Block makes reimagining midrange storage possible using a "do more with less" budget.

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Simple and Flexible Management Approach

VSP One Block offers easy to use embedded systems management to streamline configurations based on best practices for fast resource delivery and day-to-day operations.

Hitachi Ops Center Clear Sight delivers operational efficiency for cloud-based observability with AI-driven analytics for your VSP One data platforms to gain timely, actionable insights on optimal system health, capacity utilization and sustainability goals.

Easily Scale Data Capacity and Storage Performance

Consolidate your storage silos now and meet your capacity and performance requirements in the future. VSP One Block starts as small as a single appliance occupying two data center rack units. When you are ready, you can scale out by adding up to 64 more appliances and scale up by adding up to 2 NVMe drive expansion shelves per appliance.

Efficient Data Reduction That Doesn't Slow Storage Performance

Hitachi Vantara's patented Adaptive Data Reduction (ADR) increases effective capacity without slowing storage performance. VSP One Block continuously analyzes data during writes and selects and switches between real-time and deferred processing for data reduction. This is automatic, with real-time processing the default choice, so there's nothing to manage.

Choosing a VSP One Block model with Compression Accelerator Modules (CAMs) offloads data reduction processing workloads from controller processors.

Automated Energy Optimization and Validations to Sustainability Standards

Hitachi Vantara's culture of innovation includes a commitment to helping customers achieve their sustainability goals and environmental, social, and governance (ESG) objectives.

Patented Dynamic Carbon Reduction (DCR) technology optimizes power consumption by switching controller CPUs into low-power ECO mode during periods of low activity.

VSP One Block rated 1st and 2nd out of 25 data center storage platforms by Energy Star for IOPS/watt² and is Carbon Footprint of Products (CFP) certified.

Extend service lifecycles and minimize electronic waste with Hitachi Vantara's Modern Storage Assurance.

Support Mission-Critical Applications with Continuous Data Availability & Security

VSP One Block has been unbreakable for more than twenty years. Hitachi Vantara's legendary reliability for mission-critical, enterprise-class workloads is made possible by patented technologies, including Global-Active Device (GAD) for active-active clustering across storage in two distant locations, ensuring continuous data availability even during catastrophic events.

Hitachi Vantara's Thin Image Advanced snapshots create instant point-in-time copies for data protection, application testing, and data mining. Thin Image Advanced snapshots store only the changed data, so the storage capacity required for each snapshot copy is significantly reduced. Thin Image Advanced eliminates threat exposure with always-available copies of production data and actively defends structured data against ransomware.

Depend on Hitachi Vantara for continuous data availability and data security against ransomware.

Increase Application Consolidation with AI-Simplified Data Management

VSP One Block makes consolidation more efficient and effective by supporting all mission-critical databases and applications, and block storage workloads with a single platform. Maintaining existing silos of customized hardware and software for different databases and applications has become too costly, and this is driving rapidly growing or out-of-control infrastructure costs.

Consolidating storage infrastructure with VSP One Block significantly reduces data center expenses.

Simplify Hybrid Cloud with VSP One

VSP One simplifies the deployment of applications across both on-prem and public cloud. By combining VSP One Block with Virtual Storage Platform One Software Defined Storage (SDS), enterprises can create a powerful hybrid cloud solution that offers enterprise-class storage performance and flexibility. Centralized management through Ops Center, with AI Ops capabilities, streamlines operations and enhances visibility. Experience the flexibility and scalability needed to meet evolving business demands while optimizing your IT infrastructure.

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Customer Guarantees

The world's top businesses trust Hitachi Vantara with their data. Our VSP One Assurances and Guarantees are a big reason why. Modern Storage Assurance future-proofs your investments by delivering additional years of optimized storage. The 100% Data Availability Guarantee keeps data continuously accessible by databases, applications, and users.

The Effective Capacity Guarantee lowers the total cost of ownership by increasing the data capacity of infrastructure. Its 4:1 No Questions Asked Effective Capacity Warranty ensures that data stored meets capacity efficiency expectations, no questions asked. Guaranteed!¹

¹ Actual data reduction rates will vary. Guarantee applies to VSP One Block 26 and 28 systems only.

² Energy Star NVSS Set Disk Online 4 Trans Optimal Point Hot Band Workload (IOPS/Watt) for Block I/O.



About Hitachi Vantara

Hitachi Vantara is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi, Ltd., we're the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, we build the foundation for sustainable business growth.



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

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