

Datasheet

Hitachi Vantara Virtual Storage Platform One Block High End Storage

Innovation's most powerful data engine

VSP One Block powers mission-critical workloads with speed, scale and resilience, delivering simple, secure and sustainable enterprise storage.

Hitachi Vantara Virtual Storage Platform One Block High End (VSP One Block High End) all-flash NVMe storage delivers ultra-fast, reliable and scalable access for demanding enterprise workloads. Engineered by Hitachi, it ensures 99.999999% (eight 9s!) availability, seamless workload consolidation and intuitive, unified management with VSP 360. It boosts performance, scale and resilience with end-to-end NVMe, next-gen connectivity and leading data reduction.

Designed for simplicity, security and sustainability, VSP One Block empowers organizations to meet mission-critical demands with confidence — today and into the future.

Scaling for Speed, Resilience and Innovation

Modern enterprises face mounting pressure to support mission-critical workloads, embrace AI and scale operations — all while managing increasingly complex data environments. Legacy infrastructure struggles to meet rising demands for speed, reliability and real-time responsiveness. Organizations must process massive datasets with minimal latency, ensure nonstop availability and deliver flawless user experiences.

The challenge?

Enterprises need to address unprecedented data growth, consolidate workloads, recover instantly and scale without friction — while maintaining security and sustainability. To stay competitive, businesses must modernize their digital core and turn data into actionable insights that drive innovation and impact.

Simple, Secure, Scalable, Sustainable Infrastructure for Growth — Built To Last

- **Simple:** Blazing performance, simplified management and scalable infrastructure for mission-critical workloads — without added complexity.
- **Secure:** Peace of mind with resilient infrastructure — stopping threats early and ensuring fast recovery with minimal data loss.
- **Sustainable:** Future-ready scalability and efficiency with unified management, seamless upgrades and energy-smart infrastructure for sustainable growth.

Built for Mission-Critical Workloads Today

VSP One Block is engineered to meet the demands of mission-critical and AI-driven workloads. This high-end, all-flash NVMe block storage platform delivers ultra-low latency, eight 9s of availability and massive scalability across heterogeneous environments — including open systems and mainframes.

Unified VSP 360 management provides organizations a simple, flexible way to manage their entire data estate. VSP 360 integrates seamlessly with next-generation controllers and upgrades, ensuring future-ready performance and operational continuity.

VSP One Block is innovation's most powerful data engine — ready to drive insight, impact and transformation.

Power and Speed Without Complexity

VSP One Block delivers up to 50 million IOPS with sub-millisecond latency, powered by Intel CPUs and PCIe architecture. It supports up to 288 x 60TB NVMe SSDs and 12 controllers for scalable performance. Compression accelerator module (CAM) and adaptive data reduction ensure efficiency without impact.

With 64G Fibre Channel, 100G TCP¹, it accelerates mission-critical workloads. Unified management, zero-touch setup and AI Ops analytics streamline operations for real-time insight and control.

Secure Operations With Trusted Resilience

VSP One Block delivers peace of mind with end-to-end encryption, dual parity protection and immutable snapshots. It supports petabytes of clean data recovery in seconds, with validated ransomware detection accuracy of 99.99%.

Built on zero-trust architecture, VSP One Block includes secure boot, FIPS 140-3 compliance and mainframe-grade security. Unified management via VSP 360, automated audits and AI Ops observability streamline operations. With our 100% Data Availability Guarantee and Cyber Resilience Guarantee², VSP One Block minimizes downtime, data loss and reinfection risk.

VSP One Block High End Delivers Greater Reliability Than Leading Competitors

- Delivers industry-best 99.999999% availability — dramatically reducing downtime risk for mission-critical environments.
- Provides industry's only 4:1², No Questions Asked, Effective Capacity Guarantee — ensures predictable CapEx and remediation if targets aren't met.
- Boosts IOPS by 71%³ — ideal for consistent 8KB performance in mixed workloads.
- Employs high-end tools to improve sequential read/write³ — ideal for backup workloads needing faster throughput.

Sustainable Efficiency at Any Scale

VSP One Block streamlines operations with a unified operating system and VSP 360 management software for fleet-wide management, observability and governance.

Achieve up to 50% greater data reduction with FPGA-accelerated compression and adaptive data services — backed by our 4:1², No Questions Asked, Effective Capacity Guarantee.

With 60TB NVMe SSDs and dynamic carbon reduction, VSP One Block delivers unmatched density, sustainability and cost-effective scalability.

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Summary

VSP One Block redefines innovation in a data storage platform. Working with up to 70% higher IOPS for mixed workloads and significant sequential throughput gains, your IT team can confidently support performance-sensitive mission-critical workloads.

All-Flash NVMe block storage arrays deliver ultra-fast, highly reliable and scalable data access for the most demanding enterprise applications. The platform eliminates disruptive hardware refresh cycles through modular scalability and robust lifecycle management, reducing operational overhead and CapEx unpredictability. Support for both open systems and mainframe enables seamless workload consolidation, simplifying infrastructure management.

VSP One Block also integrates advanced data reduction technologies with a guaranteed 4:1 ratio, optimizing power, cooling and footprint for dense deployments. Built for resilience, it offers eight 9s of availability and secure, sustainable architecture to meet modern compliance and sustainability goals.

VSP One Block for high-end enterprises empowers IT organizations to accelerate innovation, streamline operations and future-proof infrastructure to confidently drive data from insight to impact — innovation's most powerful data engine.

[Learn more](#)

¹ For mainframe connectivity.

² For open systems only.

³ Over previous models.

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.

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

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