Solution Profile

Accelerate AI and Mission-Critical Workloads With Cisco and Hitachi

Performance at Scale

All-flash NVMe architecture in high-end Hitachi storage with Cisco MDS networking delivers ultra-low latency and high throughput for AI, analytics and transaction-heavy workloads.

Deep Visibility & Resilience

Simplified federated management that includes end-to-end observability with Hitachi's VSP 360 and Cisco SAN Analytics/DIRL enables proactive congestion prevention, faster troubleshooting and assured continuity.

Investment Protection & Sustainability

In-place upgrades[1], optics/chassis reused in Cisco MDS directors, Hitachi dynamic carbon reduction and Cisco MDS transceiver power control reduce TCO and environmental impact.

Enterprises must modernize data and connectivity to support AI, real-time analytics and always-on operations, while reducing complexity and boosting agility.

Legacy siloed infrastructure cannot keep up with rising performance, security and efficiency demands. Organizations require an integrated storage and networking foundation that simplifies operations, scales efficiently and provides actionable visibility across environments.

Hitachi Vantara and Cisco together deliver a solution that meets these challenges.

Hitachi Virtual Storage Platform One Block High End (VSP One Block High End) with Cisco® MDS 64G Fibre Channel and NVMe/FC accelerate AI and ensure nonstop mission-critical workloads.

[1] Included with Hitachi's world-class Modern Storage Assurance

Performance & Connectivity

Sustain mission-critical workloads with Fibre Channel/IOPS/all-flash NVMe speed/capacity.

Operations & Observability

Achieve fleet-wide visibility, zero-touch setup, guided workflows, mobile insights and SAN analytics.

Security & Resilience

Rely on quantum-resistant, end-to-end encryption, ransomware detection and guaranteed clean recovery.

Sustainability & Lifecycle Value

Lower energy consumption and extend asset life without forklift upgrades.

Hitachi Virtual Storage Platform One Block High End & Cisco MDS 9000

Modern enterprises need uncompromising performance, deep visibility and resilient operations across their digital core. Combining Hitachi's VSP One Block High End all-flash NVMe storage with Cisco's MDS 9000 Fibre Channel SAN portfolio creates a best-in-industry solution. The pairing delivers ultra-low latency, end-to-end security, actionable analytics and proven investment protection.

This joint architecture drives measurable improvements in business performance, minimizes operational and cyber risk, and ensures reliability for your most critical applications:

- Cisco MDS offers full line rate 64G Fibre Channel today with a path to 128G and supports NVMe/FC to dramatically increase IOPS. VSP One Block High End delivers all-flash NVMe speed, Intel CPUs, PCIe architecture and high-density NVMe capacity to sustain mission-critical workloads.

- Unified management with Cisco Intersight® and Cisco Nexus® Dashboard complements Hitachi Virtual Storage Platform 360 (VSP 360) management software and AIOps-powered observability. Together they provide fleet-wide visibility, zero-touch setup, guided workflows, mobile insights and SAN analytics for every frame and flow.

- Cisco MDS delivers quantum-resistant encryption (AES-256) with no performance impact and advanced congestion isolation (DIRL). With VSP One Block High End Hitachi adds end-to-end encryption, secure boot, FIPS 140-3, Common Criteria, immutable snapshots, ransomware detection and a Cyber Resilience Guarantee for clean recovery.

- Hitachi dynamic carbon reduction and energy dashboards in VSP 360 and Cisco Intersight, combined with Cisco's transceiver power controls and decade-long chassis reuse, enable lower energy consumption and extend asset life — without forklift upgrades.
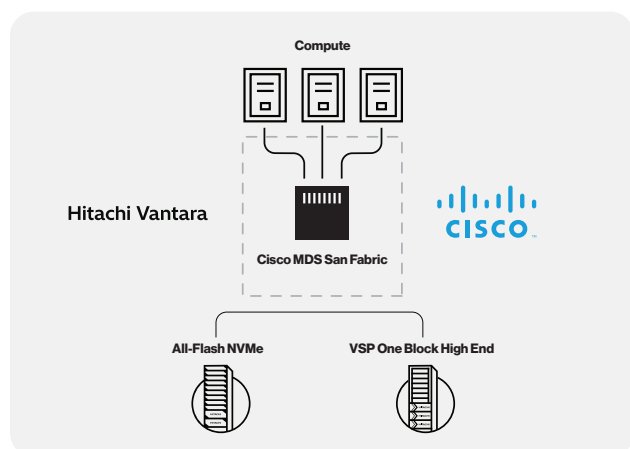

Business Outcomes

- Performance – Faster transactions, reduced latency for AI/analytics and core apps enable consistent throughput and deterministic latency across the SAN.

- Risk – Strong cyber resilience, early-warning analytics, automated congestion isolation and standards certifications reduce operational and compliance risk.

- Reliability – Proven lifecycle protection, data-in-place upgrades, unified observability and director-class availability minimize downtime and protect ROI.

Use Cases

Accelerate AI and Analytics Pipelines

Pair Hitachi's VSP One Block High End all-flash NVMe and scalable controllers with Cisco MDS 64G FC or NVMe/FC to feed GPUs and AI services. Experience consistent low-latency access to proprietary data, while SAN analytics prevents slow-drain and congestion.

Assure Mission-Critical Application Continuity

Achieve predictable performance for enterprise resource planning (ERP), databases and core payments with low latency, switching and 1B+ IOPS per line card on Cisco MDS. Minimize downtime with Hitachi snapshot/replication and secure, active-active protection.

Modernize at Lower TCO and Carbon Footprint

Scale capacity and performance without disruptions using Hitachi data-in-place upgrades and Cisco director backward compatibility. Use transceiver power management and adaptive data reduction to cut energy and space while consolidating workloads.

Figure 1. Modernize storage networking with unmatched performance, visibility and security.

Summary

Together, Hitachi Virtual Storage Platform One Block High End and Cisco MDS 9000 Series deliver a unified, future-ready foundation for AI and mission-critical workloads. Count on this joint solution to deliver uncompromised performance, deep visibility, strong security, resilient operations and sustainable economics — all with investment protection.

Contact your Hitachi Vantara representative to design a joint reference architecture and migration plan tailored to your data center strategy.

Learn more →

Reference Architecture Overview

- **Front End:** Cisco MDS 9000 64G Fibre Channel fabric, providing line rate, centralized switching for NVMe/FC and FCP.

- **Storage:** Hitachi's VSP One Block High End with all-flash NVMe drives, multicontroller scale-out and integrated security.

- **Operations and Observability:** Cisco Intersight and Nexus Dashboard for cross-domain visibility; Hitachi AiOps and VSP 360 for fleet-wide management.

- **Security**: AES-256 quantum-resistant options in SAN, end-to-end encryption and hardware root of trust (HRoT) in storage, immutable snapshots and cyber resilience guarantees.

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.

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