

eBook

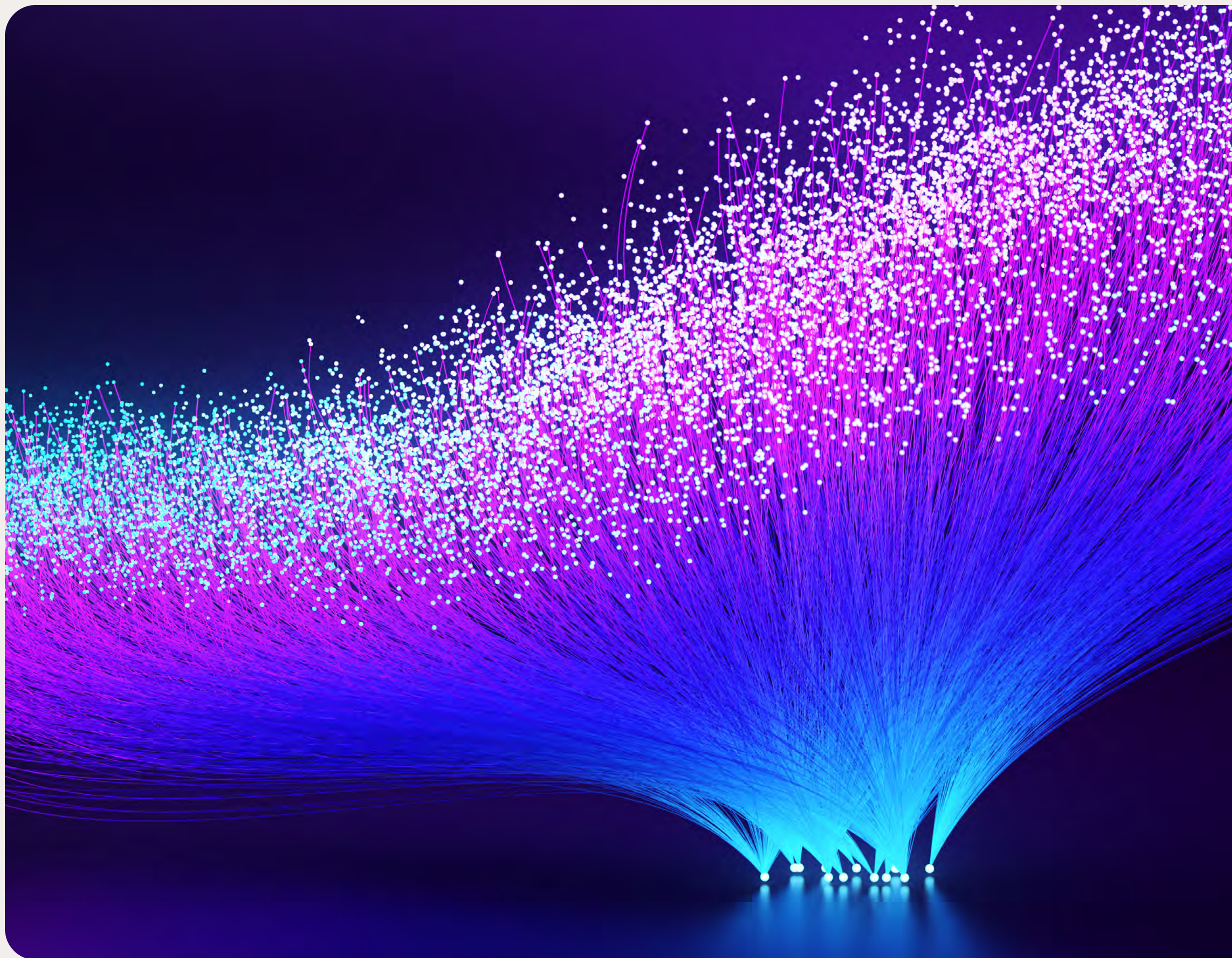
Your Infrastructure Game:

10 Reasons It's Time to Power-Up for AI

Brocade Gen 8 + Hitachi
VSP One Block

Two Leaders. One Solution.

Storage and networking upgrades should work hand in hand. That's why Brocade and Hitachi joined forces to create a unified solution with storage networking built for the AI era. This integration delivers truly autonomous infrastructure that provides automatic anomaly detection, performance optimization, quantum-safe security, and self-healing capabilities.





Meeting today's AI demands requires a modern SAN

The evolution of artificial intelligence is causing an infrastructure crisis that many organizations are unprepared to handle. AI inference engines demand microsecond response times that legacy infrastructure can't provide. Given today's short AI innovation cycles, networks may need to handle multiple AI workload generations, and the ability to transition seamlessly between them is critical.

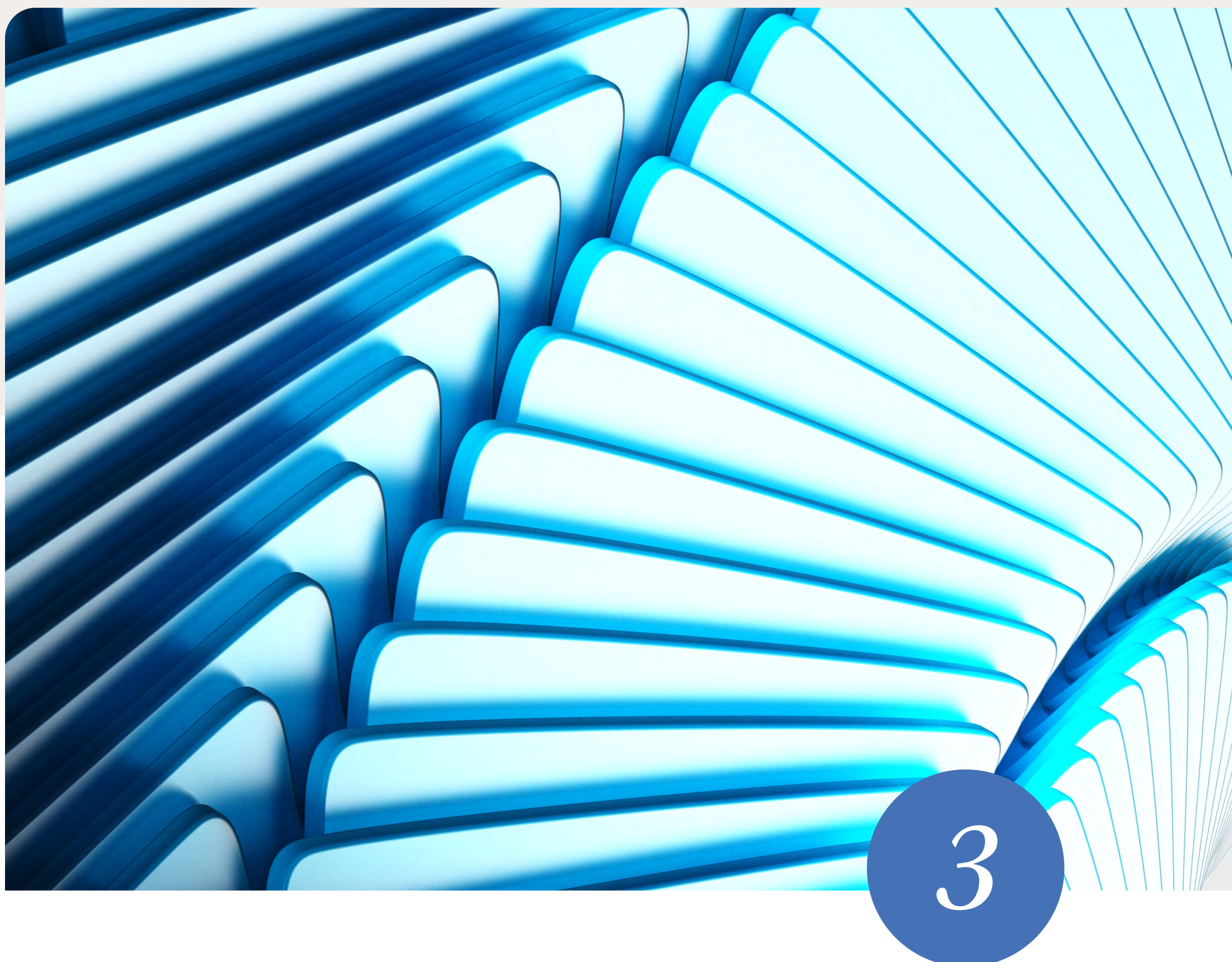
That makes Brocade Gen 8 Fibre Channel essential for:

- Protecting your AI infrastructure investments
- Accelerating AI model training and inference
- Enabling seamless scalability for AI workloads
- Fast-tracking migration to NVMe and AI-optimized Flash storage
- Delivering quantum-safe security for AI intellectual property
- Unleashing the full potential of Hitachi's VSP One Block High-End storage with its 8 nines availability guarantee
- Eliminating AI workload bottlenecks

Reduce the risk of AI downtime and quantum threats

Running unsupported products across your storage networking fabric creates significant issues for AI workloads: older platforms weren't designed to handle today's AI traffic, massive training datasets, and quantum-era security needs. Even 32 GB or 64 GB technologies risk failing under AI demands. The shortest delays can overwhelm AI model training cycles and inference performance. Moreover, quantum computers could render current encryption obsolete within 24 months, leaving AI models and training data vulnerable.

Hitachi Vantara's Virtual Storage Platform (VSP) One Block High End and Brocade Gen 8 deliver full-stack quantum-resistant security with 256-bit encryption, Root of Trust across storage and SAN, and FIPS 140-3 Level 2 certification. A single security fabric eliminates gaps created by separate storage and SAN policies, while advanced cryptographic algorithms protect AI assets end-to-end, ensuring your AI investments remain secure in the quantum computing era.



Close the AI workload visibility gap

You can't optimize what you can't measure. AI workloads demand complete visibility across your storage network to rapidly diagnose bottlenecks, optimize model training performance, ensure inference SLAs, and enable the fast, accurate analytics critical to AI model delivery and evolution.

With integrated advanced monitoring and diagnostics, integrating Brocade Gen 8 and Hitachi VSP One Block provides complete visibility into AI data flows, maximizing performance and insight, accelerating remediation, and ensuring peace of mind. Correlated analytics across storage and SAN eliminates manual troubleshooting, which consumes valuable AI engineering cycles. The result is a 75% reduction in time spent on inventory tasks and 50% faster AI workload troubleshooting.

Enhance NVMe for AI workloads

NVMe technology is vital to AI infrastructure performance. But for NVMe to really shine in AI training and inference, it needs speed and ultra-low latency. That means deploying the latest, best networking technology: Brocade Gen 8 with 128 GB bandwidth and quantum-safe architecture.

VSP One Block is the industry's fastest NVMe flash-optimized storage, designed specifically for AI workloads with NVMe over Fibre Channel support. Combined with Brocade Gen 8's unmatched latency, you get maximum AI performance without network bottlenecks.



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Control escalating AI infrastructure support costs

With legacy SAN technologies reaching end-of-life, renewal support pricing continues to rise dramatically. Switching to Brocade Gen 8 offers significant savings on support costs and delivers high-performance networking ready for AI demands. It also pairs seamlessly with Hitachi's leading storage solutions designed for AI workloads. Additionally, the bundled software features in Gen 8 simplify licensing and reduce the total cost of ownership for AI infrastructure.

There is no need for separate licensing for advanced features such as embedded SAN AI, quantum-safe security, or AnyIO converged fabric. This unified licensing approach cuts administrative overhead by 40% and accelerates deployment timelines.



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Unlock the power of Hitachi VSP One Block High End

Hitachi VSP One Block High End storage arrays deliver all the AI storage performance and resilience you need, with guaranteed 50M IOPS capability and 8 nines availability. However, the arrays need 128 GB SAN bandwidth to unleash their full potential for AI workloads.

Brocade Gen 8 delivers that bandwidth, provides quantum-safe security, and is designed with embedded SAN AI for autonomous operations.



Eliminate network complexity with converged fabric

Traditional AI infrastructures require separate Fibre Channel and IP networks, which creates complexity, increases costs, and leads to potential bottlenecks. Managing multiple network fabrics also slows AI deployment and increases operational overhead.

Brocade Gen 8's AnyIO converged fabric transports both FC and IP storage traffic on the same infrastructure, eliminating the need for separate networks. This reduces hardware footprint, simplifies management, and enables faster AI infrastructure deployment. Combined with VSP One Block's unified storage platform, organizations achieve a single, scalable solution that scales efficiently from pilot AI projects to production deployments.



Achieve Maximum AI performance at scale

Gen 8 delivers the performance AI demands: 128 GB bandwidth, AnyIO converged fabric, and the ability to scale up to 384 x 128 GB ports. With VSP One Block's 50M IOPS capability and hardware compression acceleration, this infrastructure guarantees high performance, shortens training times, and speeds up inference.

Dynamic load balancing automatically adapts to changing AI workload patterns, while quantum-safe security keeps valuable AI models and training data secure.



Manage AI infrastructure with integrated intelligence

As AI infrastructure grows more complex with larger models, massive datasets, and distributed applications, IT teams need embedded intelligence to accelerate troubleshooting, reduce administrative burden, and provide deep visibility into AI workload performance patterns.

The integration of Brocade Gen 8's embedded SAN AI with VSP 360 delivers truly autonomous infrastructure — automatic anomaly detection, performance optimization, and self-healing capabilities that keep AI workloads running smoothly. Correlated analytics pinpoint AI bottlenecks instantly, turning hours of troubleshooting into minutes.

Here's why:

- Embedded SAN AI eliminates manual correlation across AI workloads
- VSP 360 provides unified control across hybrid cloud AI environments
- Dynamic load balancing adapts automatically to AI training and inference patterns
- Automatic fabric behavior offers monitoring and self-correction
- End-to-end visibility into AI data flows and performance metrics



Superior AI-scale performance and economics

No other solution matches the AI-ready performance, quantum-safe security, and guaranteed economics that an integrated Hitachi and Brocade can deliver. Key benefits include:

Performance Leadership:

- 50M IOPS storage performance with 128 GB SAN bandwidth
- 8 nines availability vs competitors' 6 nines (32x better uptime)
- Hardware compression acceleration with 4:1 data reduction
- AnyIO converged fabric eliminates separate FC/IP networks

AI-Optimized Architecture:

- Purpose-built for AI workload patterns and data flows
- Embedded SAN AI for autonomous infrastructure management
- Quantum-safe security architecture protecting AI intellectual property
- Data-in-place upgrades protect AI infrastructure investments

Guaranteed Economics:

- 4:1 data reduction with No Questions Asked guarantee
- Single vendor relationship reduces management overhead by 40%
- Dynamic Carbon Reduction for sustainability goals
- Bundled software features eliminate licensing complexity

Ready to Accelerate Your AI Innovation?

Embrace the future of AI infrastructure with storage networking built for the AI era. Hitachi VSP One Block High-End and Brocade Gen 8 deliver tomorrow’s benchmark of AI performance, quantum-safe security, autonomous operations, and guaranteed economics.

Hitachi and Brocade. Two Leaders. One Solution.

Learn more →