Solution Profile

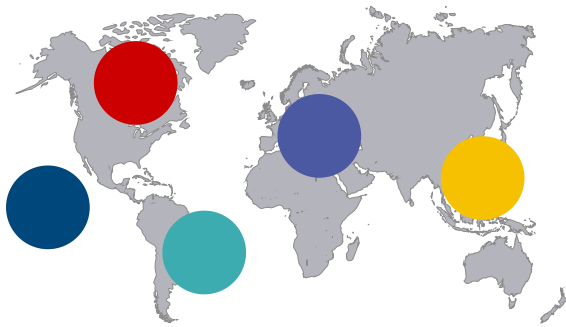# Transform your SAP ERP experience with Hitachi's DS9000, the pinnacle of server technology.

As SAP customers transition from ECC to the cutting-edge SAP HANA, Hitachi offers the ultimate integrated system solution for a seamless migration. The DS9000, powered by Intel's 4th generation Sapphire Rapids processor, boasts up to 32 TB of memory, ensuring your business stays ahead with a system that scales effortlessly with your growth. With performance that outshines competitors by 13% and a storage capacity that reaches a staggering 69 PB, the DS9000 and VSP5600 are not just servers and storage, they are integrated system solution providing a gateway to unparalleled efficiency and decision-making speed.

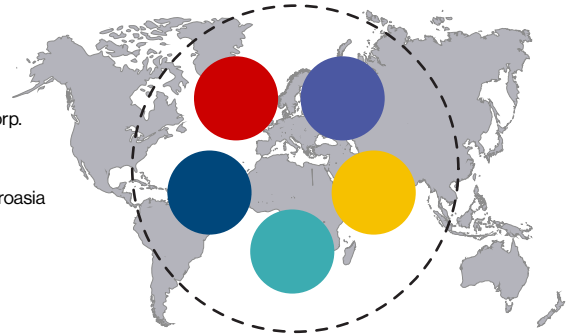## Choose Hitachi, where innovation meets infinite possibilities

- **SAP HANA Migration:** SAP, a Gartner-recognized leader in ERP applications, is transitioning customers from ECC to the SAP HANA in-memory database. This move requires innovation to justify the ROI of the costly migration by integrating applications for a comprehensive global system.

- **Performance Demands:** The growing need for consolidating applications across multiple product categories and regions into a single integrated system surpasses current SAP HANA System's performance and memory capabilities, necessitating a more robust solution.

- **Hitachi DS9000 Introduction:** Hitachi unveils the Hitachi Vantara Advanced DS9000 Series scalable servers, ranging from 2 to 16 sockets with Intel's 4th generation Sapphire Rapids processor and up to 32 TB of memory, designed to enhance scalability and performance for SAP ERP application consolidation.

- **Unmatched Performance:** The DS9000, particularly the 12 and 16 socket configurations, now stands as the world's fastest SAP HANA server, offering up to 180% higher performance and double the memory compared to the DS7000. The VSP5600 storage solution supports up to 222 HANA instances, allowing for significant application consolidation and data growth up to 69 PB, with a 100% data availability guarantee and top ranking by Gartner for online transaction processing.

The New Hitachi Solution for SAP HANA Platform:
Hitachi Advanced Server DS9160 (16 Socket, 32 TB)

- ● North America and Corp.
- ● Subsidiary
- ● Latin America
- ● Europe and Africa/Euroasia
- ● Asia Pacific

Today: Five SAP Systems
Multiple Touch-points

Tomorrow: Single Integrated System Across
Multiple Product Categories and Regions
SAP S/4HANA, BW/4 HANA

Production Region

Data

Logs

OS, Shared

Replication

Disaster Recovery Region

DS9160
16 Socket,
32 TB

Scale out VSP 5600-6N (3 pairs)
222 SAP HANA Nodes

DS9160
16 Socket,
32 TB

VSP 5600 (3 pairs)
222 SAP HANA Nodes

16	**19**	**34**	**50**	**37**	**74**	**148**	**222**
VSP F350	VSP E590	VSP E790	VSP E1090	VSP 5200	VSP 5600 (1 pair)	VSP 5600 (2 pair)	VSP 5600 (3 pair)

250
200
150
100
50
0
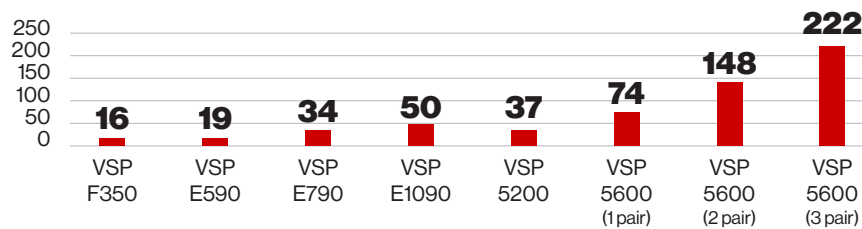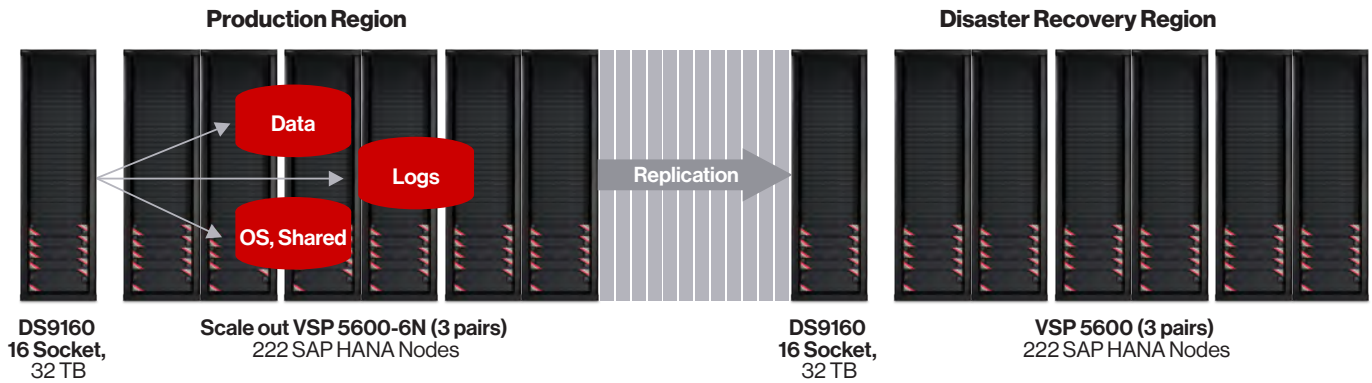
SAP HANA Node Scalability All Flash Modules

DS9000: Outperforms Competition by up to 13%

	DS9000	HPE 3200
Processor	Intel Xeon 4th Generation	Intel Xeon 4th Generation
BWH Performance (12 Sockets) • Data Load **13% Faster** • Query Execution **3% Higher** • Query Runtime **9% Faster**	**41.6 Billion Records** • Data Load (seconds) =13,418 • Query Execution (per hour) = 7,240 • Query Runtime (seconds)= 139	**55.9 Billion Records** • Data Load =15,500 • Query Execution = 6,998 • Query Runtime= 152
BWH Performance (16 Sockets) • Data Load **8% Faster** • Query Execution **9% Higher** • Query Runtime **1% Faster**	**55.9 Billion Records** • Data Load (seconds) =15,023 • Query Execution (per hour) =6,431 • Query Runtime (seconds)=167	**55.9 Billion Records** • Data Load =16,411 • Query Execution = 5,892 • Query Runtime= 169

DS9000: Unleash Superior Performance with Up to 180% Boost and Double Memory Capacity

	DS9000	DS7000
Processor	Intel Xeon 4th Generation	Intel Xeon 2nd Generation
S/4HANA 33% Higher Memory (2TB/CPU versus 1.5TB/CPU)	4TB(2S), 8TB(4S), **16TB(8S), 32TB(16S)**	3TB(2S), 6TB(4S), 12TB(8S), 24TB (16S)
BW/4 HANA 100% Higher Memory (1.5TB/CPU versus 768 GB/CPU)	3TB(2S), 6TB(4S), 12TB(8S), 24TB (16S)	1.5TB(2S), 3TB(4S), 6TB(8S), 12TB(16S)
SAPS Performance 150% Higher (8 Sockets)	1,487,350 SAPS	593,000 SAPS
BWH Performance (8 Sockets) • Data Load **72% Faster** • Query Execution **180% Higher** • Query Runtime **27% Faster**	• Data Load (seconds) = 16,126 • Query Execution (per hour) = 6,667 • Query Runtime (seconds)= 130	• Data Load =58,339 • Query Execution = 2,348 • Query Runtime= 179
Extreme Performance of CPU: • 180% more cores • 160% higher memory performance • 400% higher data transfer rate • 150% lower latency	• Up to 60 cores (per CPU) • 8 memory channels (per CPU) • DDR5 4800MT/s • PCIe 5.0 (32GT/s) • UPI 2.0 up to 16GT/s	• Up to 28 cores • 6 memory channel • DDR4 2933MT/s • PCIe 3.0 (8GT/s per lane) • UPI up to 10.2GT/s

Key Benefits

SAP BWH Benchmark represents the new capabilities of SAP HANA which enable customers to enhance their SAP Business Warehouse (SAP BW) on HANA. Benchmark results offer customers valuable insights and tools for decision-making as they modernize their environments:

- **Platform Comparison:** Evaluate and contrast various systems.
- **Proof-of-Concept:** Facilitate testing and validation scenarios.
- **Performance Forecasting:** Anticipate future system capabilities.
- **SAP Configuration:** Guide sizing and setup for SAP Business Suite.
- **DS9000:** Outperforms Competition **by up to 13%.**

With the world's fastest SAP HANA server capabilities and VSP5600's top-ranked storage solutions, Hitachi empowers customers to innovate, increase revenues, and make quicker, more informed decisions, ensuring a competitive edge in the ever-evolving digital landscape. The DS9000 and VSP5600 are not just products; they are integrated system and the catalysts for transformation in the realm of enterprise resource planning. Contact Hitachi Vantara today to learn more the possibilities to redefine your Data performance.

> **Contact us to learn how Hitachi Vantara can help you dramatically improve storage performance at scale, today.**
>
> **Learn more** →

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
A Hitachi Group Company