Hitachi Virtual Storage Platform 5600 vs Dell EMC PowerMax 8000

Hitachi VSP 5600	Dell EMC PowerMax 8000
1. Innovative Next-Gen Storage Architecture	Legacy & Outdated Architecture
Hitachi Accelerated Fabric PCIe interconnect with a new 4X resiliency design. Re-architected in 2019 with FPGA assist and DMA transfers. Deliver eight 9s of availability in hardware alone.	Aged "Virtual Matrix" architecture delivered back in 2009 - over 10 years ago. Delivers only six 9s of availability, which is the same as Dell midrange storage arrays.
2. Massive Storage Capacity	Limited Storage Capacity
Support for 16.6PiB effective NVMe capacity and 69PB of raw storage capacity. Drive support includes SCM, NVMe SSD, SAS SSD and SAS HDD. Customers can leverage lower-cost efficiencies of HDDs as storage tiers.	Support for a maximum of 4.5PB effective capacity. Drive support limited to SCM and NVMe SSD. Locks customer into expensive SCM or NVMe drives.
3. Market Leader in Performance & Latency	Market Average in Performance & Latency
VSP 5600 delivers 33 million RRH IOPS with latency as low as 39µs. That's 2.2X more IOPS and 2.5X lower latency than PowerMax.	PowerMax 8000 delivers only 15 million RRH IOPS with latency <100μs.
4. 100% Data Availability Guarantee	No Data Availability Guarantee
Every Hitachi VSP system is backed by Hitachi's 100% Data Availability Guarantee. With over 20 years of experience and more than 1,500 issued storage patents, Hitachi storage systems are engineered to have no single points of failure and multiple levels of redundancy.	Dell claims PowerMax delivers the "Gold Standard" in availability, yet does not offer any type of availability agreement or guarantee in place to back this claim.
5. Controller Upgrade Program	No Controller Upgrade Program
Hitachi Modern Storage Assurance delivers data-in-place upgrades for the VSP 5000 series to ensure no single point of failure and preservation of data on existing drives and shelves. Only basic support plans are required.	Dell does not offer a PowerMax controller upgrade program. PowerMax customers must pay for full system controller, drives and DAE upgrades.

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6. Cross-Portfolio Replication	Same-Family Replication
Hitachi Global Active Device (GAD), Hitachi Universal Replicator and Hitachi TrueCopy work across the entire VSP portfolio, from low-end to high-end enterprise storage. Leverage lower-cost VSP model for business continuity.	Dell PowerMax SRDF only works with another PowerMax or VMAX. No SRDF support for midrange PowerStore, Unity, SC Series or XtremIO. No ability to leverage lower-cost Dell storage for business continuity or DR. Expensive lock-in to PowerMax.
7. Support for up to 287PB of Virtualized External Storage Hardware	No Support for Virtualized External Storage Hardware
Hitachi set the standard for virtualizing storage behind any VSP array. Our customers can use and manage any existing or third-party storage investment behind a VSP. And, of course, we fully support VMware vVols.	Support for VMware vVols only. Lack of external virtualization support for existing storage requires customers to retire aged storage and buy new systems.
8. Common OS and Data Services Across the Portfolio	Different OS, Management and Data Services Across 7+ Storage Platforms
Hitachi Storage VIrtualization Operating System RF (SVOS RF) delivers a common OS, management, and data services across the entire VSP portfolio, allowing customers to pick and choose workload-appropriate models while eliminating learning curves.	Every Dell storage has a unique operating system, management interface for provisioning and monitoring, data services such as snapshot and replication technology. This creates barriers to deployment and lengthens learnings curves.
9. Easy Upgrade From Entry-Level VSP	No Upgrade From Entry-Level PowerMax
A 2-node, 2-controller VSP 5200 can easily scale up and out to a 2-node, 4-node or 6-node and 12 controller VSP 5600. Support for mainframe is included.	A 2-powerbrick, 4-controller PowerMax 2000 cannot be scaled out to a PowerMax 8000. Different CPUs and fewer cores do not allow scale out. There is no support for mainframe in PowerMax 2000.
10. Massive Performance & Capacity Per Rack Unit	Limited Performance & Capacity Per Rack Unit
VSP 5600, in 50 RU can support 660,000 IOPS per RU and 365TBe per RU. VSP 5600 supports 3.5X greater IOPS per RU and 6.5X more TBe per RU versus PowerMax, reducing expensive data center costs.	Dell claims an 80 RU PowerMax can support only 187,000 IOPS per RU and 56TBe per RU.

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