

# Violin Flash Storage Platform 7450

## High Performance All Flash Storage

### Highlights

#### FSP 7450

- **Up to ½ PB effective capacity** in a single enclosure occupying just 3RU of data center space
- **Consistent 1ms latency** at 340,000 IOPS
- **Starts at 32TB effective capacity** and scales to 500+ TB effective capacity in 3RU with Pay-As-You-Grow
- **Scale to 5PB+ effective with FSP7700**
- **Complete all flash SAN solution** replaces entire rack(s) of disk or hybrid primary storage
- **Comprehensive data services** including business continuance and disaster recovery support
- **Simple data reduction** with highly efficient deduplication and compression



Transform your data center economics with Violin's 7450 Flash Storage Platform™. Upgrade your primary storage to an All-Flash Array with enterprise data services, consistent performance, and simple manageability to achieve new levels of data center consolidation below the cost of legacy disk

Violin Memory revolutionized enterprise storage for data centers a decade ago and continues to reset the economics of all flash storage today. The Violin Flash Storage Platform (FSP) 7450 re-defines all flash Storage Area Network (SAN) solutions by providing Enterprise Data Services with industry leading density and consistent low latency in a Flash Storage Solution.

#### Powerful, Simple In-line Data Reduction and Storage Efficiency

Violin FSP 7450 features advanced data reduction features that makes all flash primary storage for enterprise data center environments affordable without compromising on the performance, CapEx or OpEx benefits of flash storage. In typical deployments, FSP data reduction transforms raw capacity into 6X or more effective capacity.

FSP 7450 application consistent snapshots and clones allow users to make near-instant derivative copies of production datasets without making a real copy, resulting in workflow acceleration without additional storage spend.

Combined with Violin's enterprise data services and simple, Intuitive Day-to-Day Management with Symphony's 'single pane of glass' User Interface, FSP 7450 offers the best combination of all flash primary storage functionality, low Total Cost of Ownership (TCO), and high Return on Investment (ROI).

#### Embedded Enterprise Data Services

Powered by the Violin Concerto™ OS 7 built-in storage software, FSP 7450 features enterprise data services supporting the Service Level Agreements (SLAs) businesses require, as follows:

- **Data Security** – powerful data-at-rest encryption that meets demanding FIPS-140-2 and AES-XTS-256 compliance standards.
- **Data Scaling** – non-disruptive Pay-As-You-Grow capacity growth, online capacity expansion
- **Business Continuity** – flexible global Asynchronous Replication, and when combined with the FSP 7700, Stretch Cluster with zero RPO and RTO.

With the Violin Symphony™ management software, businesses can manage and monitor all FSP systems even if they are geographically distributed across the data center, across town, or across an ocean through a unified browser-based user interface.

#### Innovative ScaleSmart™ With Pay-As-You-Grow

The Violin FSP 7450 supports ScaleSmart—featuring exclusive Violin Pay-As-You-Grow—to deliver the best of scale-out and scale-up alternatives. ScaleSmart allows FSP 7450 solutions to begin as a single enclosure, essentially a self-contained SAN, and then become the storage shelf of a FSP 7000.

Pay-As-You-Grow offers FSP 7450 systems with storage capacity that becomes available as it is consumed and without interruptions, in increments of 8.8 TB raw capacity. This delivers comprehensive FSP investment protection with massive scaling in a single namespace.

Flash Storage Platform 7450			
	FSP 7450-26	FSP 7450-70	FSP 7450-140
<b>PERFORMANCE</b>			
Performance (max)*	270,000 IOPS @ 1 ms	340,000 IOPS @ 1ms	
Latency (min)	200µs		
<b>CAPACITY</b>			
Raw	26TB	70TB	140TB
Usable (max)	14.7 TB	44.3 TB	88.7 TB
Effective (max) **	96 TB	256 TB	512 TB
Raw (Pay-As-You-Grow)	8 TB or 17 TB	35, 43, 52, or 61 TB	96, 105, 114, 123, or 131 TB
<b>SOFTWARE</b>			
Data Services (Concerto OS)	Data Reduction   Thin Provisioned LUNs Encryption   Asynchronous Replication   Clones   LUN Mirroring Application and Storage Consistent Snapshots   Consistency Groups   Stretch Cluster with FSP 7700		
Management (Symphony)	Web GUI   CLI via Serial Port   SSH   SNMP   REST XML API		
<b>CONNECTIVITY</b>			
Hosts	8x16 Gb Fibre Channel or 8x10 GbE		
Replication	2x40 GbE		
Management	2x 10/100/1000 Mb/s auto-sensing Ethernet ports (RJ-45)   1x Serial console port (RS-232)		
<b>PHYSICAL</b>			
Height	3RU		
Depth	28 in. / 711 mm		
Width	17.5 in. / 445 mm		
Weight	80 lb. / 36.3 kg	93 lb. / 42.2 kg	
Power ***	1100W	1800W	
Cooling ***	3780 BTU/hr.	6140 BTU/hr.	
<b>ENVIRONMENTAL</b>			
Operating Temperature	10 to 35 °C (50 to 95 °F)		
Non-Operating Temperature	-40 to 70 °C (-40 to 158 °F)		
Operating Humidity	8 to 90% (non-condensing)		
Non-Operating Humidity	5 to 95% (non-condensing)		
<b>CERTIFICATIONS</b>			
Industry Ecosystem	VMware VAAI, VADP, SRM, Horizon View Proven Storage, VCenter and VASA Plugin, Backup Software Integration, Automated DR Management, Snapshot Director for VM consistent backup and DR, RedHat and Mirantis certified OpenStack, CoprHD		
Regulatory and Safety	Safety: IEC/EN 60950, CB Certificate, UL60950-1 CAN/CSA-C22.2 No.60950-1, CE Mark. Emissions Class A: EN55022/CISPR 22, FCC Part 15 Class A, ICES-003 Issue 5 Class A, VCCI Class A, AS/NZS CISPR22:2009 Class A, BSMI CNS 13438 Class A, Korea RRA Notice No. 2012-13 Class A. Immunity: EN55024, EN 61000-4-2,3,4,5,6,8,11 Korea RRA Notice No. 2012-14. Environmental: RoHS 2011/65/EU. Contact Violin Memory for a list of country specific approvals.		

\*4K, 100% Read, with 6:1 data reduction

\*\* With suitable workloads at 6:1 data reduction.

\*\*\* Typical for Fibre Channel configurations.