Fact Sheet

New HP 3PAR StoreServ Storage All-flash Array

Flash-optimized appliance delivers enterprise-class performance and features at mid-range price

Overview

New computing workloads and performance-reliant applications are forcing customers to turn to new technologies such as flash-based storage to maintain service level demands and balance performance with enterprise-class resiliency.

However, legacy storage controller architectures hinder performance and current purpose-built flash storage appliances lack high availability features and advanced data services. In addition current flash appliances must be deployed as separate silos from existing storage adding management complexity.

New flash-optimized innovations without compromising enterprise-class resiliency

HP's new all-flash array, the HP 3PAR StoreServ 7450 Storage system, delivers over 550,000 input/output operations per second performance with extremely low latency to boost application service levels without deploying a separate storage architecture.[1] Offering new software, enterprise class features, and ASIC-enabled hardware acceleration to maximize solid-state performance.

The new HP 3PAR StoreServ 7450 Storage enables customers to:

- Improve application response time with flash specific software optimizations like adaptive read and write optimization and autonomic cache offload which dynamically adjust the granularity of cache-to-flash operations based on demand.
- Sustain high performance with multi-tenant input/output (I/O) processing and higher-performance mesh-active clustered controllers which ensure that all application volumes are active on all disks and controllers at the same time.
- Manage flash efficiently with new media wear gauge and extend media lifespan with a system wide-striped design that evenly spreads load across all disks.
- Lower costs with hardware-enabled thin storage innovations and that reduce capacity requirements by more than 50 percent and improve utilization without performance loss.

Leveraging the same core architecture as the entire HP 3PAR StoreServ family enables the HP 3PAR StoreServ 7450 Storage system to deliver the resiliency, efficiency and federated data mobility features that have made HP 3PAR StoreServ the platform of

choice for three of the top four global managed service providers.[2] As a result, customers can:

- Maintain business continuity by ensuring enterprise-class high availability of performance-critical applications with a suite of persistent technologies—including a quad-controller array design with persistent cache, persistent ports, peer-based stretch cluster for data center failover, and multisite replication capabilities.
- Improve agility and manage service levels within and across datacenters by easily and nondisruptively moving data between any HP 3PAR StoreServ system using HP Peer Motion storage federation software, eliminating data migration complexity and disruption as well as the need for costly external appliances.

HP is the only vendor to offer a single product family that spans midrange-priced platforms, purpose built all-flash platforms, and enterprise products with multi-petabyte scale.[3] This shared design eliminates the fragmented complexity of competitive approaches and delivers critical tier-1 features like application integrated snapshots, multi-site replication, and management interfaces, across all products in the family.

Software enhancements for high availability and protection of mission-critical data
To further increase application service levels and availability across HP 3PAR platforms, HP has enhanced the HP 3PAR StoreServ software portfolio with:

- HP 3PAR Priority Optimization Software—ensures high performance where needed by enabling administrators to deliver quality of service for essential performance-intensive applications.
- HP 3PAR StoreServ Data at Rest Encryption—allows customers to comply with regulatory requirements and security issues stemming from a compromised drive by encrypting the HP 3PAR StoreServ Storage system using self-encrypting drives.
- HP 3PAR Recovery Manager for Windows Hyper-V—provides space-efficient snapshot and rapid recovery of business application data within a Hyper-V virtual machine through seamless integration between HP 3PAR StoreServ Storage and the Windows® Hyper-V host.

Managing storage performance virtually anytime, anywhere
HP 3PAR StoreServ Storage systems enable IT administrators to securely monitor HP environments from any location with HP StoreFront Mobile Access for Android-based smart phones. Customer benefits include:

- Increased productivity by monitoring key storage performance metrics and service-levels virtually anytime, anywhere, via a simple, intuitive interface consistent with the HP 3PAR Management Console.
- Reduced risk of downtime by receiving automatic alerts and event notifications in real-time via smart phone, for faster problem solving and information sharing.
- Enhanced security via encrypted logins with browse-only enforcement access to HP 3PAR StoreServ Storage utilizing the platform's role-based security definitions.

Fast, efficient and reliable storage connectivity for high performance demands

HP enables customers to maximize the performance capabilities of next-generation storage arrays such as the HP 3PAR StoreServ 7450, via StoreFabric 16-gigabit (Gb) Fibre Channel infrastructure solutions. The new HP StoreFabric SN6500B B-series Fibre Channel Switch improves flexibility with scale from 48 to 96 ports and support for 4, 8 or 16 Gbps speeds in an efficient, low-power 2U package. It also lowers latency and simplifies deployment with a user-friendly, point-and-click interface.

Pricing and availability[4]

- HP 3PAR StoreServ 7450 Storage is available immediately at a starting price of $99,000.
- HP 3PAR Priority Optimization Software, HP 3PAR StoreServ Data At Rest Encryption and HP 3PAR Recovery Manager for Hyper-V will be available in late June.
- HP StoreFront Mobile is available at no charge from the Android application store.
- The HP StoreFabric SN6500B Fibre Channel switches are available now in four configurations, starting at $73,999 for the base configuration.

All offerings are available worldwide from HP and authorized channel partners.

Additional information is available at www.hp.com/go/3PARStoreServ.

(1) 540,000 IOPs, 0.7 m/s latency, 100% Random Read, 4K blocks. Based on HP internal testing using public domain I/O subsystem measurement and characterization tools.
(2) Source: 451 Research.
(3) ESG, "HP's New All-Flash 3PAR Is 'All-Integrated' Under Existing Management Umbrella" http://www.esg-global.com/blogs/hps-new-all-flash-3par-is-all-integrated-under-existing-management-umbrella/
(4) Estimated U.S. street prices. Actual prices may vary.