

Flash Storage: What's Trending in 2019

Wave of the future or flash in the pan?

Sometimes referred to as “lightning in a bottle,” there’s no doubt that the solid-state storage market continues to evolve. Here’s what you need to know to accelerate to all-flash with no compromise.

Gartner¹ estimates that by 2020, solid-state array (SSA) purchases by revenue will be approximately 50 percent of the external controller-based storage array market. They also expect that by 2020, the SSA market will reach \$9.67 billion, more than triple the market size of \$2.7 billion in 2015.



Follow the trend with HPE 3PAR StoreServ arrays powered by Intel® Xeon® processors.



Rapid data growth, affordability, and built-in data protection compel businesses toward flash storage.

According to Gartner, several factors—such as reduced storage administration, power, cooling, and rack space, as well as increased performance and density—are helping organizations make the flash decision. These advantages have all changed the expectations of previous storage technologies and continue to motivate data centers to make upgrades.

These are the key trends we are seeing that are driving flash adoption.

Data growth

By the year 2020, 1.7 megabytes of data will be created each second, which means storage capacity will continue to challenge data centers in the near and distant future.²

- It's clear that increased use in technologies such as virtualization, cloud, and applications like IoT, ERP, CRM, and data warehousing will only put more pressure on legacy storage systems.
- This compounding pressure means that underperforming data centers may risk opening up their organizations to performance bottlenecks and costly downtime. Flash reduces latency to increase throughput and break down IT bottlenecks.
- While some data centers are retrofitting their systems with flash and built-for-flash platforms, they often find that these systems are unable to offer the same high performance and low latency characteristics found in all-flash arrays.

Rapid adoption

Businesses are adopting flash storage much more quickly than the market expected, thanks to affordable options like HPE 3PAR StoreServ all-flash arrays. Data centers are expected to triple their adoption of flash within the next 24 months. In 2016, 18 percent of all data centers reported using at least some flash storage; that number jumped to 21 percent this year and is expected to climb to 30 percent in 2018.³

- Flash has reached a tipping point, where it's now a cheaper solution for active data. Price points are falling due to high volume driven by consumer demand for mobile devices, thumb drives, and cameras.
- Experts say data center use of flash in all forms will increase, with the adoption of all-flash arrays showing the fastest growth, according to Tim Stammers, analyst with 451 Research LLC.⁴

Enhanced data protection

The requirement for 24/7 availability does not allow for downtime. When a single failure takes down multiple servers and applications, companies face losing millions of dollars. As a result, more and more enterprises understand the need for the built-in data protection flash storage offers. The reality is that many businesses have primary storage arrays and backup appliances built on disparate storage architectures that do not integrate with one another. This requires backup solutions that are expensive to buy, complex to manage, and erode the performance of the production servers you're trying to protect.

- Flash storage removes complexity and provides a 'flat' backup process that can deliver fully-automated protection of your primary storage arrays, managed directly from your hypervisor or application interface.
- In flash, data moves natively from primary storage to backup as scheduled by the business application owner, without the need for media servers or complex backup software.

Software-defined storage

Enterprises are moving toward software-defined storage (SDS) due to its flexibility and innovation. An architecture based on SDS—in which storage is delivered as software rather than in specific chassis—reduces both cost and complexity in the data center.

- The wide adoption of virtual machines (VMs) has paved the way for SDS, since VMs consolidate workloads onto servers, increasing server utilization demands on both storage performance and throughput. SDS reduces the load as it frees up your infrastructure from the limitations of dedicated hardware.
- Variable, high-risk workloads such as VDI have also prompted businesses to look at scalable and resilient SDS solutions designed to support virtualized environments.

Modernize your storage in partnership with Comport

Weighing your storage options? Trust Comport to simplify your enterprise IT solution. We stand ready to help you get the most value out of your storage investment, starting with a thorough assessment of your existing system. Our solution architects are uniquely trained to design a customized solution that best aligns with your business needs.

HPE 3PAR StoreServ

- Powered by Intel® Xeon® processors.
- Bring your total cost of storage to as low as \$1.20 per GB usable.
- Remove bottlenecks with architecture that delivers more than 1 million IOPs and 20GBps.
- Simplify backup and restore with flash-integrated data protection.

Comport Technology Solutions, Inc.

- More than 30 years of experience in IT data center infrastructure.
- Recognized by our industry for technical expertise—member of the CRN TechElite 250 and winner of the CRN Triple Crown Award.
- A true consultative partner—we invest in our customers and create value for their businesses.

Power your data center for the future—[contact us today.](#)





The HPE 3PAR StoreServ, powered by Intel® Xeon® processors, delivers on flash features, services, and pricing. Recognized by Gartner as a leader in the storage space in its Magic Quadrant report, HPE receives high marks in both its ability to execute and for its forward-thinking vision. As a Hewlett Packard Enterprise Platinum Partner, Comport solution architects help customers assess and tier their storage to eliminate complex silos and break through bottlenecks.

Consider these 3PAR StoreServ features:

- 99.9999% uptime
- Delivery of up to 900k IOPs with latencies from 0.3 to 0.7 milliseconds
- Flash-integrated backup storage that reduces primary and backup storage costs
- Deduplication feature that reduces capacity requirements where you choose to enable or disable it
- Parallelized controllers that can pick up the workload if one component fails without disruption



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¹ [Bern Magic Quadrant for Solid-State Arrays](#). Gartner. Aug 2016.

² [Big Data: 20 Mind-Boggling Facts Everyone Must Read](#). Forbes. 2015.

³ [Experts Make Enterprise Flash Technology Predictions](#). Sliwa, Carol. TechTarget Network

⁴ IBID



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