

Top 10 Things MSPs Should Look For in **All-Flash Storage**

Investing in all-flash storage is ideal for managed service providers (MSPs) that host a variety of mission-critical cloud applications. Organizations of all sizes are realizing they must differentiate their services with next-generation data-intensive applications that require low latency and high throughput—such as predictive analytics to gain better insights into their businesses, customers and industries.

Today's business environment is being driven by digital transformation, multi-cloud environments and exciting new opportunities to turn data into intelligence. These trends, however, put a great deal of pressure on existing infrastructure. To accelerate performance, MSPs must deploy storage solutions that are much more efficient and offer improved total cost of ownership (TCO), simplicity, agility and scalability.

The reality, however, is that there are significant differences in the architectural and deployment models offered by the various vendors of all-flash storage. Many of the top vendors are burdened with spinning disk legacy investments to protect and have been followers rather than leaders in the emergence of all-flash storage.

To truly leverage the value of all-flash storage and position the organization for the future, MSPs need innovative technologies to address modern challenges that legacy spinning disk or hybrid alternatives can't meet. Here are the top 10 considerations for MSPs in choosing an all-flash storage platform and provider.

No. 1: Data Mobility

In today's world, companies that are best able to put their data to work are the ones that will survive and thrive. This truism applies not only to MSPs, but to their customers

as well. As an MSP, one of your biggest challenges is to ensure that the data you need to drive your business is available whenever it is needed, wherever it is needed, with the level of performance that is appropriate to the targeted workload. And you have to deliver the same set of capabilities to your customers as well.

To achieve this level of data mobility, you should think of your storage not as a series of disparate devices, but as a holistic data platform that combines hardware and software with innovations in management, simplicity and cloud agility. With a data platform, you should be able to leverage all potential storage services, including block, virtual machine, file or object.

Another important innovation that is important to MSPs is Purity CloudSnap from Pure Storage. CloudSnap allows MSPs to leverage data mobility to the public cloud for business continuity and disaster recovery, while delivering incremental value-added services to customers. With CloudSnap, you can back up directly to the public cloud, restore directly from the public cloud, migrate workloads to and from the public cloud, and fully leverage all public cloud platform-as-a-service offerings.

No. 2: Intelligence

Data is growing dramatically. According to most estimates, the amount of data is doubling every two years, with that growth predominantly in the creation of unstructured data. The global datasphere will grow to 163 zettabytes by 2025—10 times the 16.1 ZB of data generated in 2016, according to IDC.¹

This growth in data volume, variety and velocity is creating immense challenges and opportunities for organizations of all types and sizes, including MSPs and their customers. The more value customers can achieve in putting data to work, the more they differentiate their offerings.

One of the big challenges has been to leverage an affordable storage engine for demanding big data analytics operations. Pure Storage has once again taken

a leadership position in this space with the introduction of its FlashBlade array, which offers a massive parallel architecture for modern analytics, such as machine learning and artificial intelligence (AI). With FlashBlade, MSPs can leverage a solution that combines performance, simplified manageability, high density and cost efficiencies for the most demanding workloads, utilizing an innovative architecture for file- and object-based storage environments.

No. 3: TCO

The price of all-flash storage has come down dramatically during the past few years, challenging the notion that you need data tiering or disk drives.

In addition, as the leading innovator in the all-flash market, Pure Storage has developed unmatched data reduction capabilities through compression and data deduplication. When you combine these capabilities with the other significant benefits of all-flash storage—speed to market, reduced complexity, improved productivity, simpler scalability and subscription-based investment protection—you will quickly realize that choosing the right all-flash storage solution will actually drive significant reductions in TCO. Plus, with Pure Storage's Evergreen Storage model, MSPs don't have to purchase storage as a capital expense and can instead shift to a much more predictable and manageable Opex model.

No. 4: Automation and Self-Service

Reducing IT complexity is a strategic imperative for MSPs. Complexity compromises agility and forces your teams to spend too much time “keeping the lights on” rather than attending to the strategic needs of your customers, such as developer productivity and rapid deployment. One of the founding principles of Pure Storage has been to simplify the deployment and management of all-flash storage. This can be a huge asset for MSPs. A Pure FlashArray chassis takes 30 minutes to install, with six cables and no manual required. Once it's up and running, operations are highly automated, with upgrades, patches and maintenance handled online through software, with no need to ever take down the system. Self-service is another important

¹ “Data Age 2025: The Evolution of Data to Life-Critical,” IDC, April 2017

requirement for MSPs to achieve enhanced agility. With Pure Storage, MSPs can leverage an open platform for self-service, including RESTful APIs and plug-ins for integration.

No. 5: Workload Consolidation

Unlike legacy spinning disks, all-flash storage solutions are designed for mixed workload environments. Being an MSP is all about managing workloads of various sizes and complexity, particularly if you are supporting multiple tenants and multiple applications. By consolidating workloads using all-flash storage, MSPs can save money and improve efficiencies. Rather than having to support individual deployments of infrastructure for each application, client or workload, organizations can consolidate resources and leverage the performance and density capabilities of all-flash arrays to co-host multiple clients and workloads.

No. 6: Optimization

MSPs now have the opportunity to leverage artificial intelligence to dramatically improve their ability to maximize storage capacity and performance. Performance sizing has been a huge challenge for all companies, and particularly for organizations hosting a wide range of workloads, such as MSPs. To meet the needs of all workloads, IT teams either have to overprovision storage resources or run the risk of downtime and inadequate performance.

Pure Storage has developed an innovative solution to enable MSPs to manage storage with insight and intelligence. Its Meta solution, part of the Pure Storage data platform for managed hosting, leverages a global sensor network, real-time scanning and an AI engine to enable MSPs to accurately predict load and capacity utilization for any workload in any environment. This level of intelligence will help you modernize your own support operations and drive increased customer satisfaction with smarter, faster response and proactive problem resolution.

No. 7: Predictability/Consistency

MSPs are well aware of the raw performance gains in IOPS and throughput they can achieve by upgrading to all-flash storage from legacy spinning disks. This is valuable for all

applications and workloads, and particularly for business-critical areas such as online transaction processing and customer relationship management. But, for MSPs, performance consistency and business predictability are at least equally important. Because you are managing multiple workloads and multiple customers, you must be able to deliver predictable performance to all of your customers, with no latency, whenever and wherever they need it.

With a modern all-flash storage platform from Pure Storage, you can host value-added applications for your customers with less than 1 millisecond of latency for all I/O types without performance tiering. What's more, you can achieve greater budget predictability and consistency through Evergreen Storage, which enables you to stay modern with current technology and easily increase capacity while, at the same time, shifting to an Opex purchasing model.

Storage Quality of Service (QoS) is a critical feature for consolidation of workloads and multi-tenancy. With this in mind, Pure Storage released always-on QoS, which automatically protects against workloads impacting tenants (noisy neighbors). This is the only solution that addresses this use case without having users define policies or rules. For those MSPs that require additional control and fine-tuning, Pure Storage offers performance classes and limits to assure performance protection for mission-critical workloads and to establish performance caps. QoS has been attempted by multiple industries and technologies over the years, but complexity of operations has always been a challenge. Pure Storage solutions deliver QoS that is powerful, yet effortless to implement and maintain.

No. 8: Scalability

MSPs must be flexible and agile in taking on new clients and workloads. In addition, they benefit by delivering a broad range of services and capabilities to customers, including modern initiatives such as analytics or open source databases. This requires a scale-out model that simplifies expansion without demanding a lot of time and resources from internal IT teams. Pure's deployment model, including Evergreen Storage, is designed to make it simple for MSPs to scale their storage infrastructure. With the Pure Storage data platform, upgrades and enhancements, such as Purity

features, are deployed online through software. Capacity is easily added, with no need for complex tuning. With Evergreen Storage, IT can scale easily and on a regular schedule, with no need to ever undertake a forklift upgrade project or a risky and time-consuming data migration.

No. 9: Efficiency

All-flash storage solutions can be far more efficient in many ways versus the spinning disk storage platforms many MSPs are accustomed to using. For one, because all-flash storage enables high levels of automation and concurrency, they are much more efficient for IT teams to deploy and manage. This makes IT teams more efficient and enables them to use resources more strategically. All-flash is also more efficient on a number of other levels, including:

- **Reduced data footprint** through inline compression and data deduplication. Depending upon your workloads and applications, Pure Storage solutions can deliver data reduction rates of up to 11:1 or higher.
- **Greater optimization and utilization** of storage resources, leveraging intelligence to plan and purchase much more efficiently, with no need to overprovision resources to address peaks and valleys on demand.
- **Operational and data center efficiencies** with lower consumption of power, cooling and floor space. All-flash storage can often consume a footprint that is 10 times smaller than a legacy spinning disk solution with comparable capacity.

MSPs can leverage all of these business-critical efficiencies to drive business predictability for both their internal data centers and the hybrid cloud solutions they are leveraging for their own operations and the delivery of value-added services to their customers.

No. 10: Reliability

Reliability is key to success for any MSP. If your system goes down, or if data and applications are not readily available

to customers when they need them, the impact on your business can be catastrophic. Analysts estimate that a single hour of downtime costs at least \$100,000 to your customers.² Can you even measure the cost of goodwill and customer loyalty when your services are not available? Your choice of an all-flash storage provider can make a huge difference in reliability and availability. Because of its innovative design, Pure Storage is unique among storage providers in delivering six nines availability without needing to take the storage platform down for maintenance, upgrades or migrations.

Conclusion

The managed service provider market is highly competitive. This is the time when MSPs must invest in infrastructure to preserve their future. Nowhere is that investment more necessary than in all-flash storage. With all-flash storage, MSPs can empower their hybrid and multi-cloud initiatives with the performance, efficiencies, economics and simplicity necessary to increase competitiveness, enhance agility and gain business predictability.

The key is to invest in all-flash storage strategically. It's not just about buying arrays for enhanced performance; it's about investing in a holistic data platform that protects your current business and positions you for the future. When you closely examine the critical capabilities outlined in this article, you will rightly conclude that Pure Storage is the best all-flash storage provider, with solutions designed to meet the challenges confronting MSPs today.

To learn more about how Pure Storage can empower your business, please visit our [P3 Service Providers Partner Program](#) and our [Managed Service Provider landing page](#).

² "Cost of Hourly Downtime Soars: 81% of Enterprises Say It Exceeds \$300,000 on Average," Information Technology Intelligence Consulting, Aug. 2, 2016