

BEST PRACTICE GUIDE

7 Considerations for Choosing a File and Object Storage Platform

Getting more value from your unstructured data



Advanced Workloads are Growing

The rise in the amount of unstructured data and modern workloads is creating the need for organizations to rethink their file and object storage requirements.

Nearly 80% of global data will be unstructured by 2025. Preparing for this new reality means making sure storage infrastructure is equipped to handle it with a platform that is simple and easy to use in order to maximize the business value from unstructured data—now and into the future.

Modern workloads require a simple, high performance solution that is easily scalable in order to lay a strong foundation for their data-driven business initiatives. Organizations need a future-proof storage platform that can flexibly adapt to their needs.



Demanding More from Your Infrastructure

A data-centric business demands a much greater level of efficiency. Enterprise leaders in technology innovations have proven the best way to achieve this is through the co-innovation of hardware and software. In this scenario, complexity is minimized since the two are purposefully architected to work together to deliver optimized performance.

Alongside this co-innovation, unstructured data storage platforms must deliver the following to fully ready organizations for the future, including:



Innovative Design

Traditional storage architecture is rigid and siloed, resulting in wasted capacity and resources.



Customizable Architecture

The next-generation of business demands a system that can be customized to adapt to the performance and capacity needs.

Enterprises should invest in solutions that can handle any workload type—and without added complexity. A storage platform with a modular and disaggregated design allows for compute and storage to be configured and

scaled independently—leading to ultimate efficiency or extreme performance without compromise.

This allows for different system configurations for processing power and storage capacity depending on workload requirements. With this design, storage can be aligned with business needs while being flexible enough to adapt to changing requirements without stranded capacity.



Long-term Sustainability

Prioritizing sustainability efforts is a must in today's business environments.



Supporting ESG Initiatives

As organizations scale, the need for additional space and increasing power consumption are often key concerns. Making the decision to choose a data storage vendor that supports sustainability goals and addresses environmental challenges is more important than ever.

With any all-flash system, there are improvements in data center footprint and power requirements. Leveraging a

storage system engineered from the ground up to be efficient in utilizing flash can have tremendous impact on an organization's sustainability initiatives. These systems are specifically designed to use lower amounts of power and cooling while ultimately minimizing environmental waste. Organizations should consider more efficient all-flash storage infrastructure to reduce their carbon footprint and easily achieve their ESG goals.



Performance at Scale

Modern applications need higher performance to support dynamic and data-intensive workloads.



Flash vs. Hard Disk Drives (HDD)

Traditional disk-based and hybrid architectures struggle to meet the needs of unstructured data workloads. For performance at scale, a storage solution may require twice the number of HDDs to hit the same throughput or bandwidth as all-flash systems.

With the cost difference between flash and HDDs narrowing, an all-flash storage system becomes a compelling choice when efficiency and high performance are considered. But not all

flash solutions are equal; be wary of inefficient storage systems that utilize off-the-shelf solid state drives (SSDs). Storage systems that utilize SSDs add unnecessary overhead associated with managing each SSDs individually. In contrast, systems that design their hardware and software for flash can manage all system resources at a global level. This can deliver improved performance, resiliency, and system efficiency. Choosing a storage system with this architecture can offer predictable costs and performance even as usage continues to grow.



Investment Protection

Keeping infrastructure current over time is possible by seamlessly incorporating the latest industry advancements.



Future-proof Architecture

Typical traditional storage architectures force customers to upgrade their systems every 3-5 years. This forces customers to deal with disruptive forklift upgrades and data migration.

The storage system should be able to improve over time and upgrade each component seamlessly, evolving with customers' requirements for the next decade and beyond.

It is also important that the customers have a non-disruptive path to upgrade their systems while not being forced to rebuy the same storage and deal with unpredictable support costs. For many businesses, investing in future-proof storage for file and object data will ultimately cost them less over time. Look for a storage platform that improves over time while maintaining availability, that can support modern data and applications well into the future.



Simplified Platform

To maximize efficiency, a file and object storage platform should be easy to buy, easy to set up, and easy to manage.



Ease of Deployment and Management

You can't reverse-engineer simplicity: it must exist by design. As data sets continue to grow exponentially, it is essential to make sure that they remain simple and easy to manage. Unstructured data needs to be easy to access, mobilize, and retrieve. This means keeping cabling to a minimum, allowing for simpler scaling and giving storage administrators fewer systems to monitor and maintain.

Organizations will benefit from a system that breaks down traditional data silos. Improved interoperability is often provided by unified file and object storage platforms.

These solutions aid in removing the complexity from unstructured data storage through workload consolidation and are easier to set up, manage, and upgrade.



Architected for Exabyte Scale

A software architecture designed to leverage the hardware's innovation provides unmatched levels of scalability, density, and performance.



Supporting Unstructured Data Demands

Considering the growing scale and dynamic demands of modern unstructured data and the hundreds of billions of objects that storage systems are expected to manage, metadata becomes key. The need for a scalable metadata architecture to support the metadata requirements is essential. Additionally, the storage system needs to be designed to start small in 100s of

TBs, scaling to tens and hundreds of PBs and exabytes in future. To ensure business continuity, storage architectures must be able to deliver on this without adding complexity.

The scalability of the storage environments shouldn't come at the expense of a robust set of data services and enterprise readiness of the platform.



Flexible Consumption Choices

The public cloud is changing the way storage is purchased—but it's not designed for all workloads.



Cloud-like experience

The flexible consumption model that comes with cloud storage is very appealing. However, not all workloads were designed to run in the cloud.

Storage platforms that offer usage-based consumption help with cost predictability while allowing organizations to maintain control over their data.

This cloud-like experience can be further emulated through a platform that is easier and simpler to maintain while delivering on the most demanding service level agreements (SLAs). For example, modern data architectures can now offer a platform-as-a-service-like experience where the system is refreshed when new technology is developed, reducing the burden on the organization to maintain the platform as time goes on.



Rethink your File and Object Storage with FlashBlade//S

When it comes to unstructured data, there's a lot to consider to find the best-fit architecture for your business.

FlashBlade//S from Pure Storage is built to address the challenge of unstructured data posed by modern, machine-generated workloads. Built on an all-QLC flash design, FlashBlade//S gives organizations a scalable platform that delivers cutting-edge data capabilities—without adding complexities.

FlashBlade//S is a best-in-class platform built to accelerate the pace of future innovation. It enables even denser, more power-efficient and performant systems to market faster to address the growing dynamic data and ESG requirements of enterprises.

Designed for Exabyte Scale

Platform designed for exabyte scale that will support the evolving needs of modern data and applications.

Simplicity by Design

Simple to set-up, install and manage with intelligent software that is jointly architected with the hardware in mind.

Tuned for All Workloads

Built to support all unstructured data workload requirements regardless of protocol or data type while still delivering multi-dimensional performance.

Built for Flexibility

Update capacity and performance independently, to adapt flexibly, alongside needs.

Gets Better over Time

Can be endlessly improved and upgraded to protect investments and maintain availability at all times.

Built to be Sustainable

Save space and consume less power to optimize data center resource utilization and meet demanding ESG goals.

Agile Experience

Offers cloud-like consumption choices to adapt as data storage and performance needs evolve over time allowing organizations to only pay for storage utilized.

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