

Top 12 reasons to choose HPE Alletra Storage MP X10000

AI success depends on data that is intelligent, accessible, and instantly recoverable.

HPE Alletra Storage MP X10000 delivers enterprise performance, data intelligence embedded directly into the storage layer, seamless disaggregated scale, and the throughput and concurrency required for ultra-fast recovery. The X10000 efficiently manages and secures data from AI, analytics, and modern data protection workloads, offering an agile and economical solution that speeds time to value.

Here are the top 12 reasons to choose HPE Alletra Storage MP X10000

1. Infuse data with intelligence

Why deploy separate data enrichment apps and infrastructure to make data AI ready? Moving large volumes of data to different processing stacks is onerous and places your data at risk. The data intelligence node for the X10000 brings data closer to compute with inline metadata enrichment and native vectorization and indexing. This enhances the speed, quality, and relevance of your data for Retrieval Augmented Generation (RAG), large language models (LLMs), and analytics—all while reducing infrastructure costs. Furthermore, with built-in model context protocol (MCP) server support, the data intelligence node can make precise contextual information available as a resource to other applications or agents, presenting data as fuel for more accurate and reliable AI insights and predictions.

2. Restore data in a flash

Take advantage of flash-based performance at scale. Modernize your legacy backup environment with a powerful solution providing industry-leading up to [2.5 PB/hour](#) backup storage throughput and up to 60:1 data reduction with rapid data restores to ensure quick recovery from outages and disasters, including ransomware attacks.

3. Access data across your hybrid estate

Experience flexibility with a software-defined solution. The X10000 leverages the power of Kubernetes to deliver a highly scalable system, allowing you to maintain your existing infrastructure without rearchitecting. Benefit from a unified file and object data foundation for AI and analytics by integrating with HPE Data Fabric Software, enabling users and AI models to consistently access data stored on the X10000 while simplifying governance and security.

4. Drive peak performance for AI workloads

You need all the performance you can get for your data intensive applications. The X10000 architecture delivers up to a 6x performance advantage by utilizing a log structured key value store, allowing the system to take full advantage of flash media. The X10000 leverages the strengths of its native file and object protocols, without inheriting the downsides from running them on top of each other. Full support of RDMA for S3-compatible storage and file I/O also enables a direct path between GPU memory, system memory and the X10000, which is critical for AI applications and results in as much as 20x faster time to first token.¹ This direct path further increases system bandwidth, decreases latency and improves GPU utilization.

5. Speed training and inference with proven storage

The X10000 achieved NVIDIA-Certified Storage validation for object-based systems at the Foundation level, confirming enterprise-grade performance, availability, and reliability as well as the ability of the storage layer to efficiently feed data to accelerated compute for faster training, lower-latency inference, and higher utilization.

6. Start small and scale big with unmatched flexibility

Independently scale performance and capacity using disaggregated storage and a choice of TLC or QLC drives, eliminating overprovisioning and lowering costs for evolving workloads. Start with three nodes and expand without disruption, while ensuring storage efficiency and high availability.

7. Store more for less

Cut storage costs, save energy, boost sustainability, and shrink your data footprint with efficient inline data reduction and erasure coding technologies.

¹ [Maximizing GPU Utilization with HPE Alletra Storage MP X10000](#), Signal65, March 2026

8. Confidently safeguard your data

The X10000 provides enterprise-class security and data protection. It includes features such as FIPS certification, detailed monitoring, versioning, object lock-based immutability, object replication, authentication, data in-place encryption, TLS encryption, external key manager support for self-encrypting drives, erasure coding data protection, auditing, and accountability capabilities. Additionally, it delivers always-on processes to ensure data integrity.

9. Forget storage tiering

Keep all your unstructured file and object data on a single tier of fast, scalable, and affordable all-NVMe flash. No more silos, complex data movement workflows, or application wait times. When volumes of data are available in real time, new insights become possible.

10. Simplify management with a cloud experience

Managed via GreenLake, the X10000 simplifies storage with the speed and agility of a single intuitive cloud experience across the lifecycle—from installation to provisioning to upgrades. This makes the underlying infrastructure invisible while shifting operations to be app centric, not infrastructure centric. GreenLake Flex allows cloud-like procurement through a pay-as-you-go*, consumption-based model. Scale storage and compute capacity up and down while paying only for the capacity consumed.

The X10000 can also deliver a modern cloud experience on-premises with the GreenLake Dedicated Platform. This solution is appropriate for regulated environments that are disconnected, with limited external connectivity for support purposes.

* May be subject to minimums or reserve capacity may apply

11. Harness one platform and one experience for every workload

The X10000 is built on HPE Alletra Storage MP, a software-defined, multiprotocol storage platform that provides flexibility and high performance for both structured and unstructured data storage needs. It consists of standardized, composable building blocks—compute (node), capacity (just a bunch of flash [JBOF]), and switches—that can be configured for different software-defined storage personas and use cases. This enables you to deploy block, file, or object workloads on common hardware. Manage everything with a unified cloud experience through the GreenLake as you reduce silos and complexity while improving total cost of ownership (TCO) and return on investment (ROI).

12. Gain peace of mind with operational assurance

Take advantage of an industry-leading 100% Data Availability Guarantee. Applicable to CapEx based- and Flex-based purchases, it provides added assurance against disruptions and outages when deploying file and object storage for production use cases. A 90-day satisfaction guarantee also allows you to experience the X10000 platform in your own environment while reducing the risk for new deployments.

Learn more at

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