HPE AND WEKA
HPE Servers and WekaFS


EXPERTLY ENGINEERED SOLUTIONS TO ACCELERATE AI

Hewlett Packard Enterprise (HPE) and Weka know that acquiring technology is only the first step in achieving successful AI outcomes. The technology pieces need to work together. They need to be tested and validated. They need to provide rich functionality, quickly and effectively, so you can concentrate on your AI initiatives.

To accelerate AI workflows, HPE and Weka have teamed to engineer a solution that accelerates data from storage to the application for I/O-intensive workloads using AI/ML, like Life sciences research such as Cryo-EM and Omics, and High-Performance Data Analytics (HPDA) common in financial services.

MAXIMIZE YOUR INVESTMENT IN COMPUTE ACCELERATORS

Compute acceleration technologies, like GPUs, are becoming mainstream in the enterprise because they can accelerate AI model training and offer the potential to significantly reduce epochs and wall clock time. However, the enterprise which relies on traditional storage technologies, like NFS, will experience poor application performance, as the data will bottleneck at the NFS filer and the GPU will sit idle waiting for data. Don’t let poor storage performance compromise your AI initiatives. The Weka File System (WekaFS™) and the HPE ProLiant Gen10 servers are engineered to deliver the lowest latency and highest bandwidth to speed I/O to the GPU, ensuring it’s saturated with data, thus maximizing the investment in your high-powered compute accelerators and the valuable time of your data scientists.

PRODUCT OVERVIEWS

WekaFS is an award-winning parallel file system uniquely built to solve big problems and unleash the full capabilities of today’s agile and accelerated data center. It is a modern storage system that is built to handle the demands of new emerging and converging workloads.
Solution overview

HPE COMPLETE BENEFITS (3-Cs):
- **Completeness**—Enables the acquisition and simplifies integration of best-in-class third-party branded products that complement and complete HPE solutions to complex customer problems. Through HPE, customers get the benefits of a complete infrastructure solution validated and supported by HPE.
- **Convenience**—HPE Complete Engineering creates and maintains HPE and third-party product integration and sizing guides, and qualifies easy to order hardware configurations specifically designed and validated for use with third-party solutions. Custom automation and orchestration tools for simplified third-party SW integration with HPE’s native IT management SW like HPE Infosight and OneView are also available. This all comes with customer and selling convenience of being on one HPE purchase order with options to use the HPE GreenLake pay-per-use model.
- **Confidence**—All third-party solutions have continuous HPE oversight and are ordered through long-established and trusted HPE. The HPE Complete offerings have been through the HPE Complete Engineering Assured compatibility and interoperability validation process, which ensures solutions work in the HPE ecosystem at the time of deployment and into the future.


Architected to leverage the benefits of NVMe flash and the hybrid cloud it delivers the industry’s best performance at any scale. WekaFS can deliver 160 GB/sec of bandwidth to a single GPU server, scale to Exabytes in a single namespace, and support an entire AI pipeline for edge-to-core-to-cloud workflows. The system also delivers operational agility with versioning, explainability, and reproducibility along with governance and compliance with in-line encryption and end-to-end data protection.

**HPE ProLiant DL360 Gen10 server**

The HPE ProLiant DL family of servers are flexible, reliable, and performance-optimized rack servers that also support all flash NVMe, making them an optimal platform for WekaFS. The new HPE ProLiant Gen10 offers flexible choices, versatile design, along with improved energy efficiency, ultimately lowering TCO.

The HPE ProLiant Gen10 Server delivers:
- Up to 61% performance increase and 27% increase in core with the new Intel® Xeon® Scalable processors.1
- HPE Persistent Memory works with DRAM to provide fast, high capacity, cost-effective memory and storage to transform big data workloads and analytics by enabling data to be stored, moved, and processed quickly.
- Greater storage capacity and flexible drive configurations with up to 10 SFF and four LFF drives along with an option to support up to 10 NVMe PCIe SSDs delivering enhanced performance, capacity, and reliability to meet various customer segments and workload requirements at the right economics.
- Support for up to 12 NVDIMMs per chassis and 2X capacity of first-generation HPE NVDIMMs; HPE ProLiant DL360 Gen10 Server delivers up to 192 GB per system.
- HPE Complete Engineering and Weka have developed and validated an optimized HPE Solution for Weka based on the latest HPE ProLiant DL360 Gen10 server. Please find more information on this solution at: hpe.com/storage/HPE-Solutions-for-Weka

**COMPANY OVERVIEW**

About Weka

Weka offers WekaFS, a modern parallel file system that is used by numerous Fortune 50 enterprise organizations to uniquely solve the newest, biggest problems holding back innovation and discovery. Purpose-built to unlock the full capabilities of today’s accelerated and agile data center, WekaFS is optimized for NVMe-flash and the hybrid cloud. Its modern architecture handles the most demanding storage challenges in the most data-intensive technical computing environments, delivering truly epic performance at any scale, enabling organizations to maximize the full value of their high-powered accelerators—GPUs and FPGAs. Weka helps industry leaders solve big IT infrastructure problems and extract more value from their data faster. For more information, go to weka.io/parallel-file-system.

About Hewlett Packard Enterprise

Hewlett Packard Enterprise is the global edge-to-cloud platform-as-a-service company that helps organizations accelerate outcomes by unlocking value from all of their data, everywhere. Built on decades of reimagining the future and innovating to advance the way people live and work, HPE delivers unique, open, and intelligent technology solutions, with a consistent experience across all clouds and edges, to help customers develop new business models, engage in new ways, and increase operational performance.

**LEARN MORE AT**

hpe.com/storage/HPE-Solutions-for-Weka

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1 HPE measurements. Up to 61% performance increase of Intel® Xeon® Platinum vs previous generation E5-4699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019. Up to 27% performance increase of Intel® Xeon® Platinum vs previous generation comparing 4-socket Intel® Xeon® Platinum 8280 to ES-4699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.