

HPE Solutions with Weka



What's new

- HPE Solutions with WEKA now includes HPE ProLiant DL345 in a 2U enclosure, with performance-enhancing PCIe Gen5 and Enterprise and Data Standard Form Factor (EDSFF) technologies.

Overview

Would accelerating your artificial intelligence (AI), machine learning (ML), and deep learning (DL) workloads improve your business outcome? Financial services, life sciences, manufacturing, and AI require a modern data architecture that eliminates performance barriers. HPE Solutions with WEKA pairs our industry-leading server technologies with WEKA® Data Platform to provide a scalable, flash-native, parallel file storage solution built for large-scale AI, with high throughput, IOPS, and low-latency needed for the most performance-intensive workloads.

With policy-based tiering, data can span between NVMe flash to S3 based object storage in a single namespace, providing cost-effective data management and performance at an exabyte scale. The advanced architecture streamlines data pipelines while delivering ease of use, simplified scaling, and seamless sharing of data from edge to cloud. It can dramatically speed up data-driven innovation for complex AI, ML, or DL data pipelines.

Features

Reduced Time to Insights and Results through High Performance and Microsecond Latency

HPE Solutions with WEKA are designed for all flash, using NVMe solid-state drive (EDSFF and SSD) technology. WEKA software accesses the underlying flash media directly in its native 4KB format, so that both small files and large data sets can be processed in record time.

When using the HPE Proliant DL345 or HPE Alletra Storage Server 4110, both utilize PCIe Gen5 that has double the bus speeds of PCIe Gen4, helping HPE Solutions with WEKA provide up to twice the data throughput.

Low-latency network support means that data does not have to be local to the customer for optimal performance. Data is dynamically distributed across the cluster for parallel access, resilience, consistent performance, and scalability.

The faster you get data to GPUs, the faster you'll get to new business insights, a better customer experience, or a new drug discovery. WEKA supports the NVIDIA® GPUDirect Storage, enabling a direct path between storage and GPU memory to saturate GPUs with data to help maximize the investment.

HPE Solutions with WEKA support Ethernet and InfiniBand networking bandwidth of up to 400 Gbps, allowing full use of existing networks, while accommodating future upgrades to improve throughput and reduce latency.

Exabyte Scale and Improved Economics for Increased ROI

HPE Solutions with WEKA can start with a cluster with as little as 46TB (raw), 23TB (usable), and scale up to hundreds of petabytes in a single namespace.

The solution supports the expansion of the global namespace by tiering to any S3-compatible object store (HPE provisioned, third party, or public cloud) for cost-effective means of storage at a massive scale.

With HPE Solutions with WEKA, you can create a flexible infrastructure tuned for HPE hardware that can not only handle peak workloads but also scales for performance and capacity growth as system requirements evolve.

The solution provides an innovative snapshot of S3 object, a feature that enables cloud bursting, remote backup to the cloud, and cloud-based disaster recovery.

It can leverage a single infrastructure to work on-premises or in the hybrid cloud (public or private), and elastically scale to match the requirements of your CPU or GPU resources.

Simple and Flexible storage management

HPE Solutions with WEKA offers an easy, intuitive user interface. Alternative HPC distributed file systems such as Lustre or Spectrum Scale, generally require a team of expert admins to constantly manage and reconfigure to keep them running.

With WEKA the native flash implementation can be easily deployed, monitored, tuned, managed, and expanded using an intuitive, browser-based administration console.

With WEKA, you can create a true data lake that allows multi-protocol access and data sharing while maintaining performance across different jobs.

Reduced CapEx and OpEx - Through Improved Resource Utilization

The full POSIX compliance of HPE Solutions with WEKA means applications won't need to be rewritten to take advantage of WEKA performance.

This architecture allows shared POSIX-based access to your data without the requirement for unnecessary copies for data protection or for simply having to inefficiently copy data across multiple locations.

Multiprotocol support - POSIX, NFS, Object/S3, NVIDIA® GPUDirect Storage (GDS), Camera Serial Interface (CSI), and Server Message Block (SMB) allows one platform to serve your data lifecycle needs.



Technical specifications

HPE Solutions with Weka

Protocol supported

WEKA client software is implemented using a POSIX file system driver, which creates access similar to using local storage for each client for AWS S3, object storage, and NFS v3 SMB.



For additional technical information, available models and options, please reference the [QuickSpecs](#)

HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them [here](#).

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