



HPE Apollo 2000 Reference Architecture

FEATURES



PRECONFIGURED AND FULLY TESTED
Best-in-class components engineered to work together



INDUSTRY LEADING PERFORMANCE
World's fastest file system with native NVMe supports CPU and GPU workloads



INTEGRATED STORAGE TIERING
Tier to multiple S3 targets for infinite capacity scaling and lowest cost



BREAKTHROUGH ECONOMICS
High rack density and low power and cooling consumption



EXASCALE CAPACITY
Scale to petabytes of NVMe and exabytes of Object storage



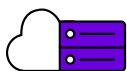
UNIFIED ACCESS
POSIX compliant with support for NFS and SMB



ADVANCED DATA PROTECTION
Distributed data protection and end-to-end data integrity



TRANSPARENT SNAPSHOT CAPABILITY
Integrated backup and disaster recovery



HYBRID CLOUD INTEGRATION
Backup or burst to the cloud for near unlimited resources



WORLD-CLASS HPE SUPPORT
Designed in reliability backed by HPE's award winning service and support



WekaFS™




WekaFS is the world's fastest and most scalable file system ideal for today's data-intensive applications in AI and technical computing. It has proven scalable performance, delivering over 6x more performance than blade-based all flash scale-out NAS and 2x more than locally attached NVMe SSDs.

WekaFS uses a clean-sheet design with an optimized network stack that runs Ethernet (10Gbit and above) or InfiniBand, so data locality is no longer a necessary factor for performance. The software presents a POSIX file system that distributes both data and metadata across the entire storage cluster to ensure massively parallel access. Using NVMe flash technology ensures the highest performance and lowest latency.

AN ENGINEERED SOLUTION

Based on the WekaFS software, HPE's Apollo 2000 Gen10 Systems, and Mellanox's network adapters, the engineered solution provides industry-leading performance, scale, and value. The HPE Apollo 2000 Gen10 System offers greater density and boosts high performance computing (HPC) performance with accelerators, low-latency interconnects, and fast HPC clustering. And, it's cost-effective in any configuration. HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapters provide the choice of either Infiniband or Ethernet to deliver 100Gb/s bandwidth in a single port (also a 2-port option), the lowest available latency, and application hardware offloads, satisfying even the most demanding application requirements.

For more information, contact us at Info@Weka.io.

WekaIO ENGINEERED SOLUTIONS	2 SYSTEMS	5 SYSTEMS	10 SYSTEMS
<ul style="list-style-type: none"> • HIGHEST PERFORMANCE • LOWEST LATENCY • MASSIVELY SCALABLE • SPACE AND ENERGY EFFICIENT • FULLY PRECONFIGURED • WORLD-CLASS HPE SUPPORT 			
HPE Apollo 2000 Gen10 Systems	2*	5	10
Total Rack Space	4U	10U	20U
Storage Nodes (4 per system)	8	20	40
NVMe per Node	4	4	4
NVMe Count	32	80	160
Raw Capacity** (TB)	102	256	512
Usable Capacity** (TB)	55	182	364
IOPS Performance (millions)	3.5M	8.8M	17.5M
Bandwidth (GB/sec)	45	113	225

* - Minimum configuration ** - Rounded to nearest number with N+2 data protection

Storage Server Configuration (4-Nodes Per Server Chassis)

COMPONENTS	SPECIFICATIONS	QUANTITY
Chassis	HPE Apollo r2800 24SFF-Flex Gen10 CTO Chassis	1
CPU(s)	HPE XL1x0r Gen10 Intel Xeon-Gold 6126 (3.6GHz/4-core/105W)	8
RAM	HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	48
Networking	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	4
SSD(s)	HPE 3.2TB* NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	16
Boot Drive	HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	8
1GbE Mgmt. NIC	HPE Ethernet 1Gb 2-port 368FLR-T Media Module Adapter	4

* - Other Mixed-use Performance NVMe options include 1.6TB
 Configuration details subject to change without notice. Please contact WekaIO for custom configuration details.



910 E Hamilton Avenue, Suite 430, Campbell, CA 95008 T: 408.335.0085 E: info@weka.io www.weka.io

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