



# FrostByte with WekaFS™

## Software-Defined Storage Solution













### OVERVIEW

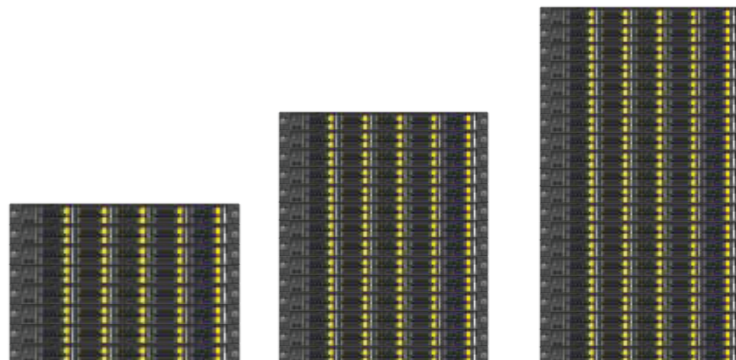
WekaFS is the world’s fastest and most scalable file system ideal for today’s data-intensive applications in AI and technical computing. It has proven scalable performance, delivering over 10x more performance than blade-based all flash scale-out NAS and 3x more than locally attached NVMe SSDs. WekaFS can help solve any high performance problem, and is ideal for all extreme technical compute and high I/O intensive workloads including machine learning, GPU acceleration, genomics, life sciences, financial analytics, log management and technical compute.

WekaFS was built from the ground up with an optimized network stack that is designed to take advantage of high speed Ethernet or Infiniband networks, so data locality locality is no longer a necessary factor for performance. WekaFS 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.

Penguin Computing’s Frostbyte™ WekaFS software-defined storage platform is built on the Relion XE1112 Intel Xeon Scalable processors. With Eight NVMe Drives per node, FrostByte with WekaFS combines the performance of Weka’s SDS platform and the density of Penguin Computing’s underlying hardware architecture.

 <p><b>PRECONFIGURED AND FULLY TESTED</b> Best-in-class components engineered to work together</p>	 <p><b>INDUSTRY LEADING PERFORMANCE</b> World's fastest file system with native NVMe supports CPU and GPU workloads</p>	 <p><b>INTEGRATED DISK-BASED TIERING</b> Tier to multiple S3 or NFS targets for infinite capacity scaling and lowest cost</p>	 <p><b>BREAKTHROUGH ECONOMICS</b> High rack density and low power and cooling consumption</p>	 <p><b>EXASCALE CAPACITY</b> Scale to petabytes of NVMe and exabytes of Object storage</p>
 <p><b>UNIFIED ACCESS</b> POSIX compliant with NFS and SMB support</p>	 <p><b>ADVANCED DATA PROTECTION</b> Distributed data Protection and end-to-end data integrity</p>	 <p><b>TRANSPARENT SNAPSHOT CAPABILITY</b> Integrated backup and disaster recovery</p>	 <p><b>HYBRID CLOUD INTEGRATION</b> Backup or burst to the cloud for near unlimited resources</p>	 <p><b>WORLD-CLASS SUPPORT</b> Reliability backed by the HPC experts at Penguin Computing</p>

# FrostByte with WekaFS Building Blocks



Relion XE1112 Servers	8	14	20
Total Rack Space	8U	14U	20U
NVMe Drives per Server	8	8	8
Total NVMe Count	64	112	160
Usable Capacity (TB)	442	1000	1770

## Components

CPU	2x Intel Xeon Gold 5218 CPU (32C, 2.3GHz)
Memory	12x 16GB DIMM, DDR4-2933MHz (192GB)
SAS Drives	2x 1TB SSD, 2.5", SATA, 6Gbps, 0.2 DWPD, 3D TLC
NVMe Drives	8x 3.84/7.68/15.36TB SSD, 2.5", NVMe, 4 Lane, 1.2 DWPD, 3D TLC
Networking	1x Mellanox ConnectX-5/6, 1 x QSFP28/100Gb VPI

## Learn More

For pricing on your specific configuration, contact a representative by email at [sales@penguincomputing.com](mailto:sales@penguincomputing.com) or call 1-888-PENGUIN (736-4846).

## About Penguin Computing

Penguin Computing, Inc. is a 20-year-old, U.S.-based global provider of high-performance computing (HPC), artificial intelligence (AI), and data center solutions with more than 2,500 customers in 40 countries, across eight major vertical markets. Penguin Computing offers a comprehensive portfolio of hardware, software, and services, including solutions based on the Open Compute Project (OCP), as well as financing and top-rated customer support. Penguin Computing products include Linux-based servers, software, integrated, turn-key clusters, enterprise-grade storage, and bare metal HPC on cloud via Penguin Computing® On-Demand™ (POD).

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