

Supermicro Storage Appliances

Featuring WekaFS™ Software

FEATURES



PRECONFIGURED AND FULLY TESTED

Best-in-class components engineered to work together



EASY TO MANAGE

Simple, intuitive management via GUI, API, or CLI



INTEGRATED STORAGE TIERING

Tier to multiple S3 or NFS targets for infinite capacity scaling and lowest cost



INDUSTRY LEADING PERFORMANCE

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



EXASCALE CAPACITY

Scale to petabytes of NVMe and exabytes of Object storage



UNIFIED ACCESS

POSIX compliant with support for NFS and SMB



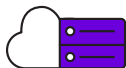
ADVANCED DATA PROTECTION

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



BREAKTHROUGH ECONOMICS

High rack density and low power and cooling consumption

ACCELERATE HIGH-PERFORMANCE AND TECHNICAL COMPUTE WORKLOADS

The boom of Big Data in today's world has created amazing new opportunities for innovation but unforeseen problems as well, particularly in the areas of artificial intelligence (AI), machine learning (ML), deep learning (DL), and high-performance computing (HPC) workloads. These workloads hold the promise of finding solutions for major challenges across industries, including healthcare and financial services. To accelerate the process of obtaining insight from mountains of data, these workloads require a modern infrastructure with extreme performance in compute, storage, and networking resources. There is a solution that addresses these needs and can help you gain the insight that you need to gain a competitive advantage, deliver customer value, and grow your business.

The Supermicro Storage Appliances, featuring WekaFS, the world's fastest and most scalable file system, are preconfigured and optimized for maximum acceleration and reduced training times, delivering unmatched performance at scale. This family of appliances is ideal for today's data-intensive applications in artificial intelligence 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. This solution supports deep learning workloads that are akin to HPC, but with unique storage requirements. Because these workloads consist of billions of small files, the storage system must be able to deliver high throughput, low latency, and excellent metadata performance at extreme scale to keep graphics processing units (GPUs) and applications saturated with data. This is unattainable by legacy storage systems, but made possible with WekaIO's modern NVMe-optimized, distributed, and parallel file system running on Supermicro servers.

CHOOSE A PRE-CONFIGURED SOLUTION THAT DELIVERS PERFORMANCE, FLEXIBILITY, AND VALUE

Based on the Supermicro Ultra SuperServer® and BigTwin™ server platforms, WekaFS software, and Mellanox network adapters, you can take advantage of a plug-and-play engineered solution that helps extract greater value from data. This solution is available in a set of appliances that allows you to easily select a choice that best suits your performance, capacity, and footprint requirements. You can make your decision based on your need for:

- entry-level capacity with granular scaling of nodes (1U model)
- the best value per GB with granular scaling of nodes (1U model)
- best performance density per RU (2U model)

The 1U models offer flexibility, an attractive entry price, and the highest number of drives and performance per server node; the 2U model offers the highest performance density per rack unit and great power and space economy. The Supermicro BigTwin 2U Storage Appliance is the industry's first 2U multi-node system with high-performance processors, memory, storage, and I/O. Furthermore, it can lower energy consumption in the data center with an incredible 30 percent better thermal capacity. Performance and capacity can be easily increased with expansion storage for each appliance and drives for partially populated appliances.

WekaFS is a POSIX-compliant file system that distributes both data and metadata evenly across the entire storage cluster to ensure massively parallel access. WekaFS reduces time to innovation by

delivering more data to the applications that need it, faster than any other storage system. With a single namespace that can offer on-premises storage and cloud connectivity, the software delivers simplified storage management and data protection. Its performance is 3x that of local file systems and 10x that of traditional NAS. Mellanox adapters provide the choice of either InfiniBand or Ethernet to deliver 100Gb/sec bandwidth in a single network port, the lowest available latency, 150 million messages per second, and application hardware offloads, satisfying even the most demanding application requirements. The SPEC SFS®2014 results show that WekaFS has performance that is far superior to all competitors in Overall Response Time (ORT) for database, Electronic Design Automation (EDA), Video Data Acquisition (VDA), Virtual Desktop Infrastructure, and software build workloads.*

DERIVE BENEFITS FOR YOUR BUSINESS

These high-performance storage solutions not only address your specific needs based on workload types and performance and capacity requirements but go beyond that to provide greater overall benefits for your business:

- optimization of your IT environments with a modern storage infrastructure and simplified storage management
- data center agility with faster data access and effective resource utilization
- data transformation for machine learning and analytics with faster time to value and insight.

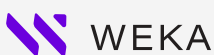
WekaIO delivers a differentiated solution that goes beyond current market and performance standards for storage. In partnership with Supermicro, a best-of-breed-technology alliance partner, WekaIO delivers the best solutions for your IT and business challenges.

SUPERMICRO SUPERSERVER STORAGE APPLIANCES (8-NODE MINIMUM)

	ENTRY LEVEL CAPACITY WITH GRANULAR SCALING OF NODES	BEST VALUE PER GB WITH GRANULAR SCALING OF NODES	BEST FOR PERFORMANCE DENSITY PER RU
Appliance	SRS-AF1U08-WEKA-01	SRS-AF1U08-WEKA-03	SRS-AFBT08-WEKA-01
Storage Server	8x SYS-1029U-TN10R-W1 (8 nodes)	8x SYS-1029U-TN10R-W3 (8 nodes)	2x SYS-2029BT-HNR-W1 (8 nodes)
Total Rack Units	8U	8U	4U
CPUs per Node	2 x Intel® Xeon® 12-Core		
NVMe Drives per Node	10	10	6
Total NVMe Drives	80	80	48
Raw Storage	307.20TB	614.40TB	368.64TB
Networking	<ul style="list-style-type: none"> • Mellanox EDR InfiniBand / 100GbE Ethernet QSFP28 • 10GBASE-T Ethernet 		
Software	WekaFS™ Software		
Software License (per Usable TB)	161TB	322TB	193TB
Data Protection	<ul style="list-style-type: none"> • Distributed Data Protection (N+2 or N+4) • Drive Hot Sparring • Error Detection: End-to-end Data Protection • In-flight and at-rest Data Encryption 		
Protocols	POSIX, NFS, SMB, S3 gateway		
Snapshots and Clones	File System Level, Up to 1024 Snapshots		
Tiering	S3 Compatible Cloud Object Store (Public or Private), and Ceph		
System Monitoring	Cloud-based Monitoring and Analytics for Application Tuning and Remote Support		
Performance	Sequential read performance up to 45GB/sec		
Max Power	6,560W		3,960W
Dimensions	8 Rack Units, 437 x 344 x 724 (mm, W x H x D)		4 Rack Units, 447 x 176 x 730 (mm, W x H x D)
Support Term	<ul style="list-style-type: none"> • Software 3-year including Same Day Support • Hardware 3-year Next Business Day Support 		

Configuration details are subject to change without notice. Additional capacity, drive and server configurations available. Please call your Supermicro representative or your local WekaIO reseller for more information. * SPEC® SFS2014 Results: <https://bit.ly/35UHLdK>

Additional Resource: WekaFS™ Data Sheet: <https://bit.ly/36BRJdc>



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

©2019-2020 All rights reserved. WekaIO, WekaFS, WIN, Weka Innovation Network, the Weka brand mark, the Weka logo, and Radically Simple Storage are trademarks of WekaIO, Inc. and its affiliates in the United States and/or other countries. Other trademarks are the property of their respective companies. References in this publication to WekaIO's products, programs, or services do not imply that WekaIO intends to make these available in all countries in which it operates. Product specifications provided are sample specifications and do not constitute a warranty. Information is true as of the date of publication and is subject to change. Actual specifications for unique part numbers may vary.