



DEPLOY MASSIVELY SCALABLE SOFTWARE- DEFINED STORAGE

The Supermicro® Solution for Red Hat® Ceph® Storage

SUPERMICRO

As a global leader in high performance, high efficiency server technology and innovation, we develop and provide end-to-end green computing solutions to the data center, cloud computing, enterprise IT, big data, HPC, and embedded markets. Our Building Block Solutions® approach allows us to provide a broad range of SKUs, and enables us to build and deliver application-optimized solutions based upon your requirements.

RED HAT®

Red Hat is the world's leading provider of open source enterprise IT solutions. We're here to help you address change with open principles so that you can navigate today's need for transformation, and prepare for the future. With engineers connected to open source communities, the freedom of our subscription model, and a broad portfolio of products that's constantly expanding, Red Hat is here to help you face your business challenges head-on.

Exploit new opportunities from your data

Data is a powerful differentiator. The ability to extract value from your data can make a critical difference. Whether building a data lake for analytics (AI/ML) workloads, serving digital media, or providing capacity for archive or backup, you need flexible software-defined storage solutions that can be deployed rapidly and scaled or changed on demand to meet business needs.

[Supermicro and Red Hat](#) have partnered to develop a best-in-class solution based on industry-leading SuperServers, SuperStorage, and Red Hat Ceph Storage to support a wide range of performance and capacity requirements. Red Hat Ceph Storage clusters can also serve Red Hat OpenShift® clusters through Red Hat OpenShift Container Storage external mode.

Supporting a full complement of object, block, and file access methods, Red Hat Ceph Storage provides a robust and compelling software-defined data storage solution that can support your data, no matter the format or origin. As a self-healing, self-managing platform with no single point of failure, Red Hat Ceph Storage significantly lowers the cost of storing enterprise data and helps companies manage exponential data growth in an automated fashion, offering:

- **Scalability** and data protection, with capacity that scales to store hundreds of petabytes and billions of objects, with default replication.
- **Simplicity**, with dramatically easier installation, operation, monitoring, and capacity management for greater flexibility and control.
- **Security**, with client-side object-level encryption and sophisticated authentication features.

Supermicro solutions for Red Hat Ceph Storage use cases



	High Performance	Small Capacity	Medium Capacity	Large Capacity
Key Applications	Persistent storage for Red Hat OpenShift	Flexible block, file and object storage for OpenStack	Media delivery and streaming	Content repository, object storage
Base Server SKU	SYS-1029P-N32R SSG-1029P-NEL32R	SSG-6019P-ACR12L+	SSG-6029P-E1CR24L	SSG-6049P-E1CR45L SSG-6049P-DE1CR90
Usable Capacity¹	163TB per node	88TB per node	176TB per node	360TB per node
Form Factor	1U 32x NVMe bays	1U 12x 3.5-inch bays and up to 4x 7mm U2NVMe for cache	2U 24x 3.5-inch bays (22x if deploying with optional NVMe cache)	4U 45x 3.5-inch bays Dual-node 4U 90x 3.5-inch bays
CPU	Intel® Xeon® Scalable	Intel® Xeon® Scalable	Intel® Xeon® Scalable	Intel® Xeon® Scalable
Memory	384GB (up to 3TB)	192GB (up to 3TB)	192GB (up to 3TB)	384GB (up to 3TB)
Network	4x 100Gb QSFP, 2x 10Gbe	2x 10Gbe	4x 25Gb SFP28, 2x 10Gbe	4x 25Gb SFP28, 2x 10Gbe
Cache Device (optional)	Not applicable	Up to 4x 7mm NVMe	Up to 2x U.2 NVMe (in 3.5-inch bays)	Up to 4x U.2 NVMe (45 bay)
Drive (OS)	2x 240GB	2x 240GB	2x 240GB	2x 240GB
Minimum cluster size	4x nodes	4x nodes	4x nodes	4x nodes
Optimal starter cluster	10x nodes	10x nodes	10x nodes	10x nodes

1. Usable capacity based on 12TB drive capacity and 4+2EC data protection. Actual usable capacity may be different.

Working together, Supermicro and Red Hat offer proven, validated solutions and reference architectures across multiple Red Hat software platforms, including Red Hat Ceph Storage. With these integrations, organizations can focus on their applications, knowing that careful engineering and testing has removed much of the time and risk and time required to deploy modern hybrid cloud infrastructure. The Supermicro Solution for Red Hat Ceph Storage also offers:

- Installation and system burn-in for rack and cluster configurations, turn-key shipment with customer-provided IP address ranges and node naming, and burn-in and erasure for secure site deployments.
- 24/7 Onsite service from next business day to four-hour break-fix response service level agreement (SLA), toll-free number and VIP website, Technical Account Manager as a single point of contact, and a local parts depot stocked to help ensure SLAs.

For more information, contact your Supermicro sales representative

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* Please check with your Supermicro sales representative and website for compatibility and configuration details. Actual product may vary in appearance due to product configuration.