



Amplify File and Object Efficiency

With the release of version 3.2 of Red Hat® Ceph® Storage (RHCS) and the new Micron® 9300 MAX SSD with NVMe™, Ceph has become an ideal choice for high performance and scalability — a combination rarely found before now in open-source computing. Micron’s unique hardware and recent performance increases for Ceph combine to provide a challenge to traditional storage architectures.

Micron has developed a tuned, scalable, performance-optimized NVMe solution to better manage rapidly growing storage demands.



Built on standard x86 server platforms with the Micron 9300 MAX U.2 enterprise SSDs with NVMe, this solution offers an ultra-performance, ultra-dense all-flash Ceph storage infrastructure you can count on — today and tomorrow.

The Micron 9300 family of NVMe triple-level-cell SSDs are an outstanding solution when microseconds count. Offering optimized read and write throughput,² the 9300 provides the performance required for advanced, high-performance software-defined storage (SDS) solutions such as Red Hat Ceph Storage.

Key Benefits



Get more than 2 million read IOPS and more than 48 GiB/s object performance.¹



Ease deployment with prescriptive all-flash reference architecture.

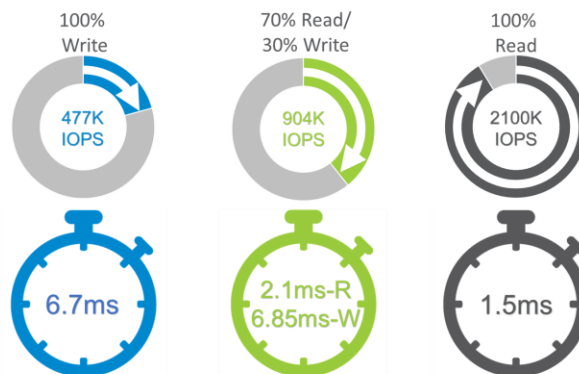


Scale to petabytes of high-performance flash storage.

4MB Object Performance



4KiByte Block Performance



1. Based on 4KiB block and 4MB object data used during testing.

2. Offered on Micron’s 7.68TB and 15.36TB 9300 PRO SSD and 6.4TB and 12.8TB 9300 MAX SSD models. Throughput of 3.5 GB/s at 128KB block size for sequential read and write operations.

Micron RHCS Reference Architecture

This reference architecture is based on industry-standard Intel® Xeon® processor architecture, which provides the high CPU performance and compatibility required for a performance-optimized Ceph cluster and yields an open, cost-effective SDS platform. This platform can be an effective building block for implementing a multi-petabyte OpenStack® cloud infrastructure. This Micron RHCS reference architecture is built upon:

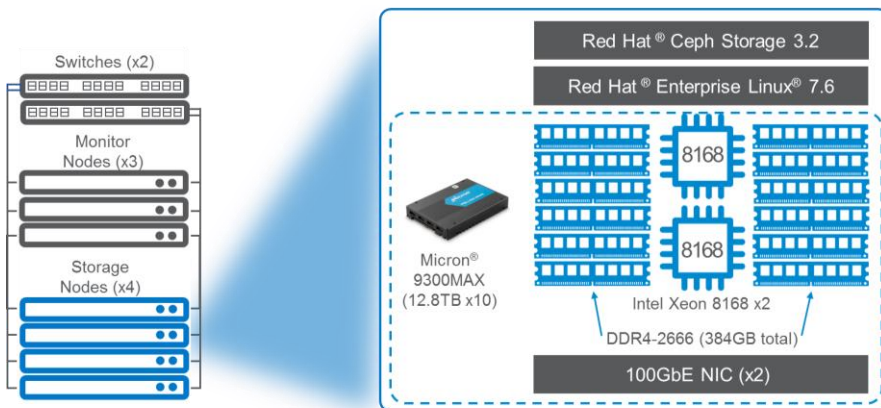
- **Red Hat Ceph Storage (RHCS):** Using version 3.2 provides proven software with support services critical for enterprise storage solutions.
- **Red Hat Enterprise Linux (RHEL):** RHEL is a high-performance operating system based on open-source Linux. It provides enterprise-level performance, security and support designed for enterprise operation.
- **Micron Advanced Storage and Memory:** Micron's latest high-performance NVMe SSDs and DDR4 memory are optimized to balance performance and cost.

Micron Accelerated Storage Solutions

Micron Accelerated Storage solutions are engineered for excellence and provide several advantages over “do-it-yourself” deployments:

- **Optimized:** Micron leverages its deep technical knowledge of advanced NAND and DRAM technology and SSD design to maximize solution performance.
- **Trusted:** Micron is a trusted component provider to many OEM and cloud providers, so you can trust Micron for your solutions.
- **Simple:** Micron Accelerated Solutions provide all the information you need to be successful. Built upon x86 architecture, Micron Accelerated Solutions focus on the Micron value and performance while using the server platform of your choice without compromise to performance.
- **Experienced:** Micron solutions engineers have years of experience across the most important workloads and software demanded by highly successful businesses.

Solution Overview



Component Options	Standard Part	Capacity
Micron RDIMM DDR4 DRAM	MTA72ASS8G72PSZ	64GB
	MTA36ASF4G72PZ*	32GB
Micron 9300 PRO SSD	MTFDHAL3T8TDP-1AT1ZABYY	3.2TB
	MTFDHAL7T6TDP-1AT1ZABYY	7.68TB
	MTFDHAL15T3TDP-1AT1ZABYY	15.4TB
Micron 9300 MAX SSD	MTFDHAL3T2TDR-1AT1ZABYY	3.2TB
	MTFDHAL6T4TDR-1AT1ZABYY	6.4TB
	MTFDHAL12T8TDR-1AT1ZABYY*	12.8TB

*Parts in blue used in this specific reference architecture

Learn More



Learn about all of Micron's Ceph solutions by visiting the [Micron Accelerated Solutions for Red Hat Ceph Storage page](#).

Get started today. Download the Micron RHCS reference architecture, complete with layout, networking, test and performance details.

micron.com

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