



Software and Hardware Innovation Combine for Our Fastest Released Ceph Architecture

With the release of Red Hat® Ceph® Storage 3 and the new Micron® 9200 MAX SSD with NVMe™, Ceph has become an easy choice for high performance and scalability — a combination rarely found before now in open source computing. Micron’s unique hardware and recent performance increases in Ceph combine to provide a challenge to traditional storage architectures.

Micron developed a tuned, scalable, performance-optimized NVMe solution to better manage rapidly growing storage demands. Built on standard server platforms with Micron 9200 MAX with NVMe U.2 enterprise SSDs, this solution offers an ultra-performance, ultra-dense, all-flash Ceph Storage infrastructure you can count on — today and tomorrow. [Download the reference architecture](#) to get started.

Key Features

Precision Tuned, SSD-Optimized Ceph Storage Platform:



Nearly 2 million read IOPS base configuration easily scale to meet your growing needs 1U (and 64TB) at a time



Built on a foundation of industry-standard server platforms, open software and blazing fast NVMe storage

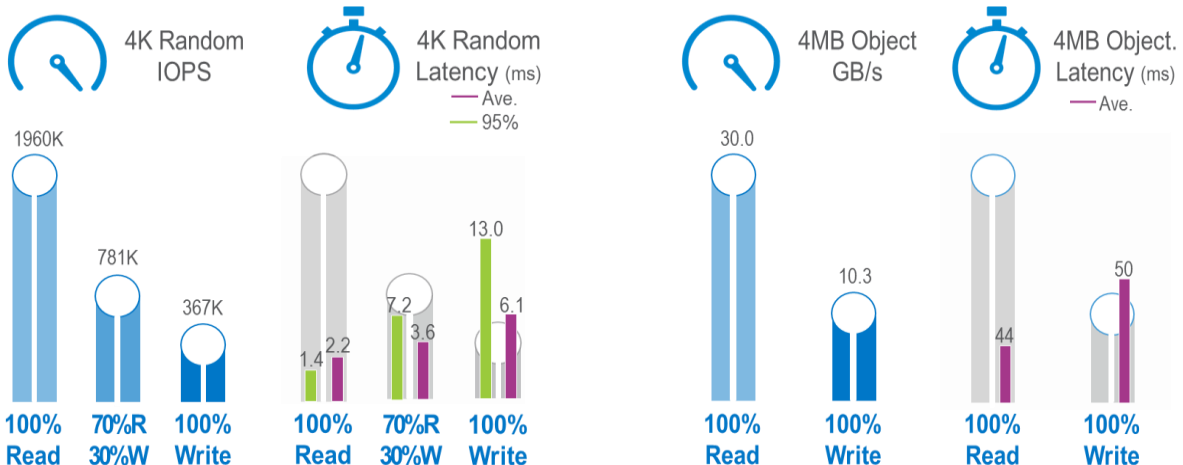


Pre-engineered to optimize compute, networking and storage into a highly compact, efficient design that delivers



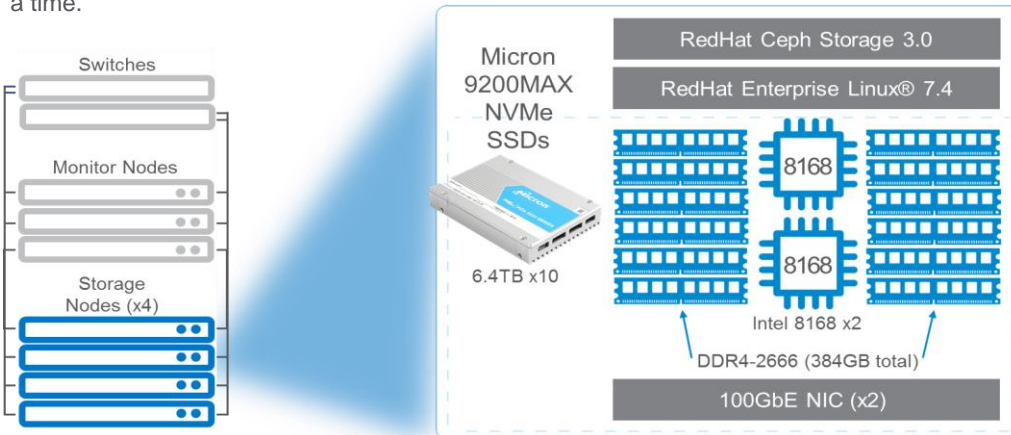
Ideal for web-scale active archives, media content repositories, OpenStack® cloud storage and content distribution.

4K Random IO Block and 4MB Object Performance: 4U Storage Deployment



Micron 9200 MAX SSDs With NVMe + Red Hat Ceph Storage 3 Solution Overview

The Micron 9200 MAX SSDs with NVMe used in this design offer tremendous performance with low latencies. Capacity per rack unit is maximized with ten (10) 6.4TB NVMe SSDs per 1U node. These storage nodes occupy just 4U (the entire Reference Architecture occupies seven rack units including three monitor nodes) and can easily be scaled up 1U at 64TB at a time.



At least three storage nodes must be present in a Ceph cluster to become eligible for Red Hat technical support.

Ten storage nodes are the recommended scale for an enterprise Ceph cluster.

Micron Reference Architectures Deliver

Micron's 9200MAX SSDs with NVMe + Red Hat Ceph Storage 3 Reference Architecture describes the hardware and software building blocks and tuning parameters needed to construct a performance-focused, scalable block and object Ceph storage platform. This all-NVMe solution is optimized for block performance while also providing very high object performance in a compact, rack-efficient design to enable:

Faster deployment: The configuration has been pre-validated and is thoroughly documented to enable faster deployment.

Balanced design: The right combination of NVMe SSDs, DRAM, processors and networking ensures subsystems are balanced and performance-matched.

Broad use: Complete tuning and performance characterization across multiple IO profiles for broad deployment across multiple uses.

Learn More

Read [The Micron Storage Blog](#) – Storage Solutions Engineer Ryan Meredith discusses what this combination can really do, including a hand's on perspective from the lab.

[Download the complete Reference Architecture](#) – Get started today, complete with layout, networking, test and performance details.

micron.com

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