



# Micron® 7300 SSDs and AMD EPYC™ Bring Red Hat® Ceph® Storage to Mainstream

Enterprise applications can benefit from all-flash NVMe solutions without breaking your budget right now. You no longer need to purchase expensive, proprietary frame-based arrays that continue to depend on spinning media augmented with limited flash. Realize the promise and potential of modern IT requirements: consider new storage paradigms for the flexibility and performance you need to scale your business.

The Micron® 7300 family of SSDs brings together our deep understanding of advanced flash storage technology and the latest NVMe™ functionality in a solution without the cost and performance disadvantages of the past. Modern software-defined storage solutions use low cost, industry-standard servers, fast flash storage, advanced DRAM, and Software Defined Storage like Red Hat® Ceph® Storage to provide modern storage services that meet or exceed today's application demands for performance and scalability.

## Small-Block Transactional



## Large-Block Throughput



\*4KiB block and 4MB object data used during testing. 100% read.

### Key Benefits

**Faster Deployment:** Micron Accelerated Solutions are pre-validated, optimized, and documented to enable faster deployment and faster performance than using default instructions and configuration.

**Balanced Design:** The right combination of NVMe SSDs, DRAM, processors, and networking ensures a balanced set of subsystems optimized for performance.

**Broad Use:** Documenting complete tuning and performance characterization across multiple IO profiles for broad deployment across multiple uses.

**Flexibility and Choice:** Micron Accelerated Solutions enable you to build with confidence. Engineer-designed and lab-validated, this solution enables fast time to deployment with predictable results.

**Performance:** Supporting millions of IO operations across petabytes of capacity, Micron advanced NVMe SSDs provide the critical performance requirements for enterprise storage



Micron 7300 family of NVMe SSDs with 96-layer TLC NAND offer advanced features that greatly enhance Red Hat Ceph Storage results with mainstream applications: Advanced NVMe performance, low cost and low power consumption. The 7300 is a great option for OLTP, DSS, business intelligence, unified communications, and web-centric solutions.

## Micron Reference Architecture

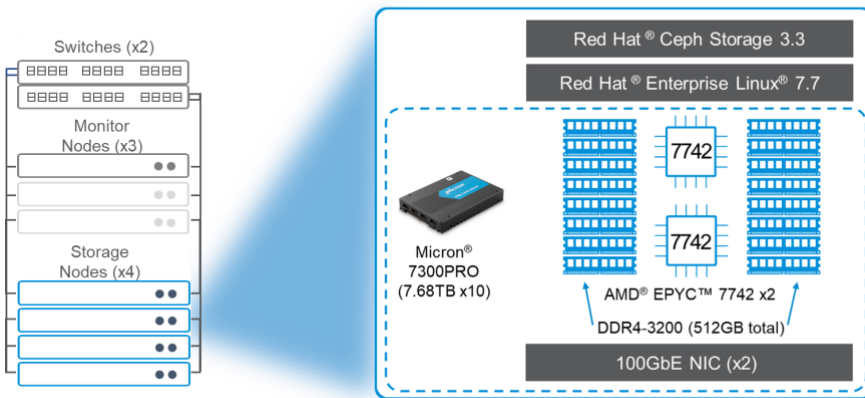
- **Micron 7300 TLC SSD:** Our most advanced mainstream SSD. Offering the latest NVMe technology in a high-performance, cost-effective platform to meet your storage requirements today and tomorrow.
- **Micron Memory:** Micron’s latest 3200 MHz DDR4 memory takes full advantage of the newest CPU architectures common in today’s data centers.
- **Second Generation AMD EPYC™ Processor Architecture:** Provides the CPU performance and compatibility required for open, cost-effective software-defined storage (SDS) platforms.
- **Red Hat® Ceph Storage:** Built on open-source version 12.2 Ceph, it provides proven SDS capability and proven support services.
- **Red Hat® Enterprise Linux®:** Red Hat provides a high-performance operating system based on open-source Linux®. RHEL provides enterprise-level security and support designed for enterprise operation.

## Micron Accelerated Storage Solutions

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

- **Optimized:** Micron leverages our deep technical knowledge about 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 that you can trust Micron for your solutions.
- **Simplified:** Micron Accelerated Solutions provide prescriptive guidance and the details you need to be successful. You have the freedom to use the server platform of your choice without compromising results.
- **Excellence:** The Micron solution engineering team has years of experience across the most demanding workloads and complex challenges – enabling highly successful businesses.

## Solution Overview



## Micron Components Options

### **Micron 3200 DDR4 RDIMM DRAM**

- **MTA36ASF4G72PZ-3G2 – 32GB**
- MTA18ASF2G72PZ-3G2 – 16GB

### **Micron 7300 PRO**

- MTFDHBE1T9TDF-1AW1ZABYY – 1.92TB
- MTFDHBE3T8TDF-CAW1ZABYY – 3.84TB
- **MTFDHBE7T6TDF-CAW1ZABYY – 7.68TB**

### **Micron 7300 MAX**

- MTFDHBE3T2TDG-1AW1ZABYY – 3.2TB
- MTFDHBE6T4TDG-1AW1ZABYY – 6.4TB

Blue, bold items above specifically used in this reference architecture.

### Learn More



Learn about all of our Ceph reference architectures by visiting our [Micron Accelerated Ceph solutions page](#). Learn more about Red Hat Ceph Storage by visiting their [website](#). Learn more about Ceph by visiting the [Ceph website](#).

To Learn More, register for the Micron Partner Portal at [microncpq.com](http://microncpq.com) or contact your Micron Sales Representative.

[micron.com](http://micron.com)

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