

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 solutions that grow with your business.



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

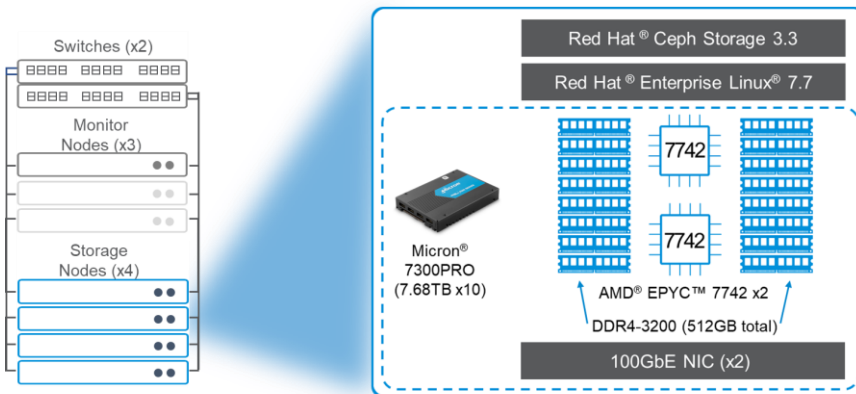
- **Micron 7300 TLC SSD:** Our most advanced mainstream SSD. Offering the latest NVMe technology in a high-performance, cost-effective platform to meet your storage requirements today and tomorrow.
- **Micron Memory:** Micron's latest 3200 MHz DDR4 memory takes full advantage of the newest CPU architectures 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:** 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

Green, 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](#).

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