

# Micron Introduces New Solid-State Drive for Data Center Servers and Storage Platforms

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### **Key Messages:**

- The new Micron P400m is designed for data center servers, appliances and storage platforms that manage the volume and velocity of big data
- First 25nm MLC NAND SSD to implement Micron's XPERT for extending SSD performance and enhancing drive life span and data integrity
- A high endurance SSD, achieving 10 drive fills per day for five years
- Provides superior data protection, consistent high performance, low power, and low latency
- Comes in 100, 200, and 400 GB capacities and standard 2.5-inch 7mm form factor

#### **Multimedia Elements:**

## • Media Kit

BOISE, Idaho, Jan. 22, 2013 (GLOBE NEWSWIRE) -- Micron Technology, Inc., (Nasdaq:MU) today announced its next-generation solid state drive (SSD) for data center servers, appliances, and storage platforms that manage the volume and velocity of **big data**. The new Micron P400m SSD is a high-endurance SATA caching and storage solution that was designed to handle the amassing petabytes of structured and unstructured digital information that is created, stored and accessed every day in data centers.

Data reliability and system uptime have always been primary concerns for data center managers, but the accelerating influx of data and massive demand spikes add new pressures that require different, more responsive storage systems. The Micron P400m was designed precisely for this environment. It offers the high reliability and high endurance that is critical for high-performance storage tiers, accelerating throughput, and responding to the peak demand periods that these new applications create.

"The growth in big data is placing tremendous pressure on IT administrators. Users require fast, on-demand access to data. This means data centers must deliver more data, faster than ever before—in an environment that has zero tolerance for data loss," said Ed Doller, VP and general manager of Micron's Enterprise SSD division. "Integrating flash storage into the data center is the preferred way administrators can meet these growing demands. The Micron P400m delivers the endurance, reliability, and performance critical for data center storage."

The growing demand for high-performance, cost-effective enterprise storage requires the latest NAND flash technology. Paradoxically, flash technology also loses performance and endurance and is generally harder to work with as it's scaled down into these new designs. The P400m resolves this conflict by implementing Micron's Extended Performance and Enhanced Reliability Technology (XPERT), which closely integrates the storage media and controller through highly-optimized firmware algorithms and hardware enhancements. The end result is a set of market-focused enterprise features that deliver increased data performance and reliability. To learn more about Micron's XPERT, read our tech brief: <a href="http://www.micron.com/~/media/Documents/Products/Technical%20Marketing%20Brief/xpert\_feature\_set.pdf">http://www.micron.com/~/media/Documents/Products/Technical%20Marketing%20Brief/xpert\_feature\_set.pdf</a>

All manufacturing, testing, and qualification for the Micron P400m is completed solely at Micron facilities. Close communication between Micron NAND and SSD engineers enables the highest degree of integration between the flash media and its management, and the in-house manufacturing ensures complete quality control during the entire drive development, test, manufacture, and shipment process. This quality control ensures drive reliability for which Micron SSDs are known. To watch a video about how Micron SSDs are made, visit: <a href="http://www.youtube.com/watch?v=EZJzLQJMdXs">http://www.youtube.com/watch?v=EZJzLQJMdXs</a>

With XPERT at its core, key features of the Micron P400m include:

- **High Endurance** XPERT extends drive life, making the P400m perfect for write-intensive workloads. It is designed to achieve 10 drive fills per day for five years, which (for the 400GB drive) is the equivalent of writing *every* picture posted to Facebook daily for 311 days straight (about 78 billion photos total<sup>1</sup>).
- Superior Data Protection The Micron P400m was designed with multiple features for data protection—including onboard power loss protection—providing peace of mind that your data is always right where it should be.
- Consistent High Performance —Consistent delivery of high throughput and IOPs are critical to providing the performance required in all-flash and tiered storage arrays (tiered storage groups place fast storage in front of slower, high-volume storage to create a versatile system that has both high performance and high capacity).
- Low Power The Micron P400m consumes significantly less power than HDDs (dramatically less when measured in Watts per work achieved) and requires almost zero cooling.
- Low Latency The P400m delivers reliably low latency times, which are critical to creating a storage system that can consistently respond to unpredictable demand spikes.

This SSD further expands Micron's enterprise-class storage portfolio, providing a targeted caching and mass storage solution for key applications including active real-time databases, virtual machine image storage, virtual memory, array-level write cache, low maintenance storage appliances, and video on demand. The P400m SSD adds to Micron's strong enterprise SSD portfolio, which includes an established boot and log SATA drive aimed at

cloud and Web 2.0 applications, the P400e, as well as the high-performance P320h PCIe IO accelerator.

The P400m comes in 100, 200 and 400 gigabyte (GB) capacities and a standard 2.5-inch 7-millimeter (mm) form factor to serve a wide range of markets. The drive is currently in production and is sold direct to OEMs and through Micron's extensive distribution network.

A video overview of the P400m and its target markets can be viewed here: http://www.youtube.com/watch?v=eHmDnSKHQpM

<sup>1</sup> Calculations based on 250 million photo uploads per day to Facebook and an average photo size of 90KB (due to Facebook upload limitations of 2048 x 2048 pixels) <a href="http://www.searchenginejournal.com/stats-on-facebook-2012-infographic/40301/">http://www.searchenginejournal.com/stats-on-facebook-2012-infographic/40301/</a>. Drives are warranted in accordance with Micron's standard terms and conditions of sale.

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