

RAZOR SSD

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8Gb FC or 6Gb SAS Host with 2.5" SSD Drives



(12) 2.5" Drive Enclosure

Highlights

- ❖ Full-featured RAID in a Compact 1U Chassis using SSD drive
- ❖ 2.5-inch Drives Are Simply Smaller
- ❖ Higher IOPS in Less than half of space
- ❖ Lower Total Cost of Ownership
- ❖ 45% Less Power Consumption and Heat Generation

RAID Inc. introduces its first entry into the solid state drive (SSD) RAID storage subsystem market with the Razor SSD. The Razor SSD is the newest addition to the company's existing Razor product family based on 2.5 inch drive technology and comes in a 1U 12-bay RAID subsystem that has unprecedented I/O and sustained throughput performance. The new Razor SSD adds to this legacy and takes it to the next level for Tier 0 storage.

The Razor SSD has been qualified with 64GB drives, which allows customers to obtain nearly a terabyte of storage in a 1U rack. The system is scalable using 1U JBODs up to 60 drives, or about 4 terabytes, in a 5U form factor. The Razor drives are single-level cell (SLC) NAND Flash, which are non-volatile unlike DRAM and also represent a 10x improvement in lifespan over the multi-level cell (MLC) versions of Flash that have become prevalent in the market.

BENEFITS

- Greater application performance and higher reliability than traditional hard drive solutions
- Can be added in a tiered storage environment where disk drives are the limiting factor in performance
- Less volatile in environments where physical shock may be present
- Capacity: 192GB to 768GB in a single 1U solution, a maximum of 3.8 TB in a 5U form factor
- 70% smaller: Smaller space requirement than comparable 3.5" drive solution
- Consumes 80% less power: In addition to cost reduction, less power means a cooler enclosure, and therefore a higher overall

Ideal Uses

Razor SSD is ideal for higher-end database or other OLTP applications in which the disks have traditionally been the bottleneck, especially for random I/O reads and writes. It is also a perfect fit for mobile applications where the physical characteristics of standard drives can become a major issue. These include harsh environments where shock, vibration, and altitude can wreak havoc on spinning disks, and solid state drives perform much better. In remote environments such as planes, submarines, and tanks, there is often no choice but to utilize this type of technology.

StorageWatch

All RAZOR systems are StorageWatch® capable allowing users to reduce both infrastructure TCO and organizational operating costs associated with today's business of data assets and intelligence ensuring long term organizational growth.

reliability

- Improved write amplification that is 50% greater than Industry standard SSD drives
- Higher MTBF of 2,000,000 hours per drive
- Wear level factor 3x greater than industry average
- Quieter operation than traditional HDD drive solutions

HIGHER RELIABILITY AND BETTER PERFORMANCE

2.5-inch SAS disk drives are designed for environments requiring higher reliability (with an outstanding 1.7 million hours MTBF) and higher I/O density.

THE BENEFITS OF 2.5" DISK DRIVES ARE OBVIOUS

70% smaller: Smaller space requirement than comparable 3.5" drive solution.

Consumes 40% less power: In addition to cost reduction, less power means a cooler enclosure, and therefore a higher overall reliability.

Higher MTBF: High-end 10,000 and 15,000RPM 2.5-inch SAS drives feature a 1.7 million hour MTBF, which is 15 percent

2.5-inch Drives Are Simply Smaller: RAID, Inc. is the first to introduce 2.5" drives in external RAID enclosures. Using 2.5" drives allows you to implement more spindles in less than half of rack mount space than using the 3.5" counterparts. More spindles mean higher IOPS performance.

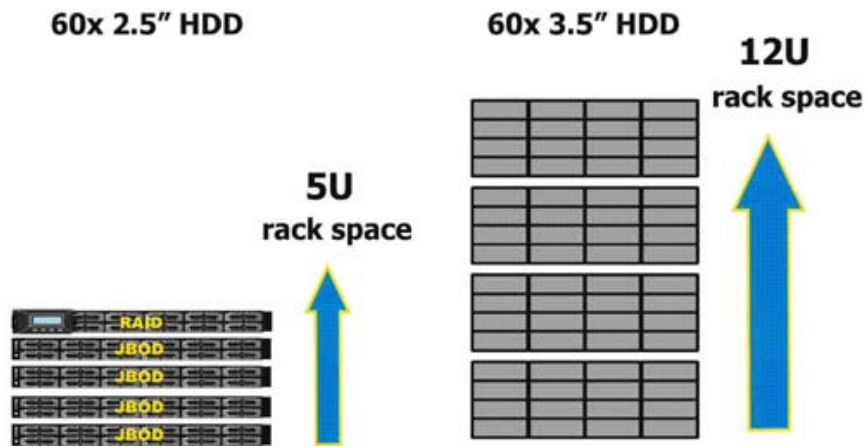
COMPACT IN SIZE

2.5-inch disk drives are simply smaller than their 3.5-inch counterparts. The compact 1U enclosure houses twelve 2.5-inch SAS disk drives while the same number of 3.5-inch disk drives requires at least a 2U-profile enclosure.

SCALABILITY: EXPANSION OVER SAS WIDE LINKS:

Similar to Fibre Channel expansion loops, SAS expander technologies also enable the ease of connections when the need arises for more capacity. All you have to do is to attach the cables and use a flatblade screwdriver to select an enclosure ID by a rotary switch. The SAS WWN addresses will be automatically applied to all the disk drives.

Higher IOPS in less than half of space!



EXPANSION ENCLOSURES

The Razor II can attach to 4 expansion enclosures (60 HDD) via SAS wide links.

POWER CONSUMPTION AND HEAT GENERATION

SFF 2.5-inch disk drives consume 45% less power than their 3.5-inch counterparts. They run cooler with reduced airflow requirements, which also decrease the chance of encountering thermal issues and the cost on providing airflow ventilation.

EXCEPTIONAL 24/7 SUPPORT

The Razor comes with a maintenance and management service package that not only monitors but manages your data 24/7. RAID Inc.'s patent pending StorageWatch® remote monitoring service provides real-time proactive monitoring of the overall condition of your storage solution 24 hours a day, 7 days a week. All components of your solution and environment are monitored for irregularities including; storage arrays, RAID controllers, disk drives, power supplies, cooling, switches & fabric (all SAN devices) and backup devices.