# maxRAID: Revolutionizing Storage

Efficient. Fast. Long-lasting Storage for Cloud and Modern Databases.

This evaluation compares a 19TB high-performance storage system, assessing **maxRAID** against conventional RAID solutions like MD RAID, Xinnor, and GRAID. While conventional RAID depends on high-endurance SSDs for longevity, **maxRAID** delivers optimized performance with lower-endurance drives. By leveraging data compression and advanced optimizations that reduce wear, **maxRAID** ensures consistent, long-lasting performance. We assume 20% data compressibility for general-purpose data.

|  | RAID-10 | RAID-5 | maxRAID-5 |
|---|---|---|---|
| Performance | Good | Poor | Good |
| Drives | 6 | 4 | 6 |
| Drive type[1] | 6.40 TB | 6.40 TB | 3.84 TB |
| Drive Cost[1] | $6,672 | $4,448 | $3,234 |

Day-1 Savings
**$3,438**
vs. RAID-10

**maxRAID-5 delivers better performance at half the cost of RAID-10.** While RAID-5 may seem similar upfront, its poor performance often makes it unacceptable, and rapid media wear leads to costly long-term expenses.

With **maxRAID's** advanced wear optimization, you save on costs and can use lower-cost drives—without sacrificing performance.

Save over
**$5,662**
in 5 years with
**maxRAID vs. RAID-5**

| RAID-10 | RAID-5 | maxRAID-5 |  |
|---|---|---|---|
| 5 years | 2.9 years | **5+ years** | SSD Life |
| $0 | $4,448 | $0 | 5-year SSD Repl. Cost[1] |

Fewer drives, more capacity.

Reduced Day-1 and long-term costs.

Extend SSD lifespan with peak performance

## How does **maxRAID** work

**maxRAID** revolutionizes storage with advanced Host FTL architecture. It optimizes data flow, converting random writes into efficient, sequential patterns, compressing data in real-time, and reducing SSD wear. The result? Lower latency, more usable capacity, and sustained performance that outlasts traditional RAID systems.

1: Based on Micron 3 DWPD 6.4TB $1112, maxRAID uses 1 DWPD 3.84TB $539. Drive costs only; excludes host system and software

**maxRAID** delivers lower costs, sustained performance, and longer-lasting storage