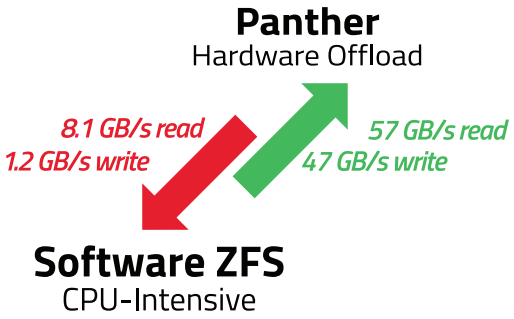
MAXLINEAR®

Accelerated OpenZFS

CPU-Bound to Accelerated

Software ZFS	VS	Panther OpenZFS
GZIP-9 compression runs on host CPU cores (RAIDZ0 pool)		Same ZFS pool — offloaded to Panther via ZIA + DPUSM
1.2 GB/s write		**47** (~39×) GB/s write
8.1 GB/s read		**57** (~7×) GB/s read
• CPU cores saturated by data services • Significant underutilization of available NVMe bandwidth • Fewer cores left for applications		• GZIP-9 compression executed in Panther silicon • Sustains NVMe-class bandwidth end to end • Host cores freed for applications; scales per card

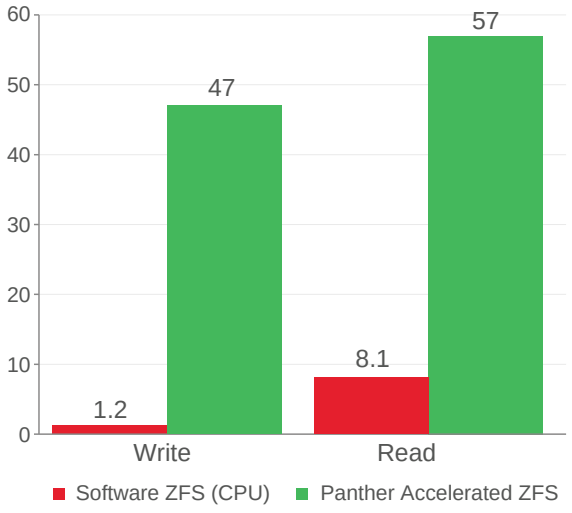


The Challenge

Software-based compression can limit OpenZFS performance by consuming CPU resources and constraining storage throughput.

How Panther Helps

- Offloads GZIP compression to dedicated hardware
- Achieves up to **39× faster writes**
- Delivers up to **7× faster reads**
- Lowers CPU core requirements and memory bandwidth demand



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