EIDETICOM

NoLoad® Transparent Compression

Plug-and-Play Hardware Compression

Transparent Compression is a Computational Storage Service (CSS) for NoLoad CSPs. Running on a range of modules and add-in-cards, Transparent Compression provides data compression services for the host without requiring the target application to be modified.
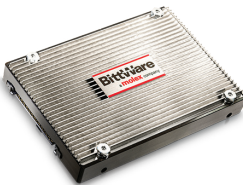
40x Faster

Write to storage 40× faster while keeping the same compression ratio as software

Low CPU Usage

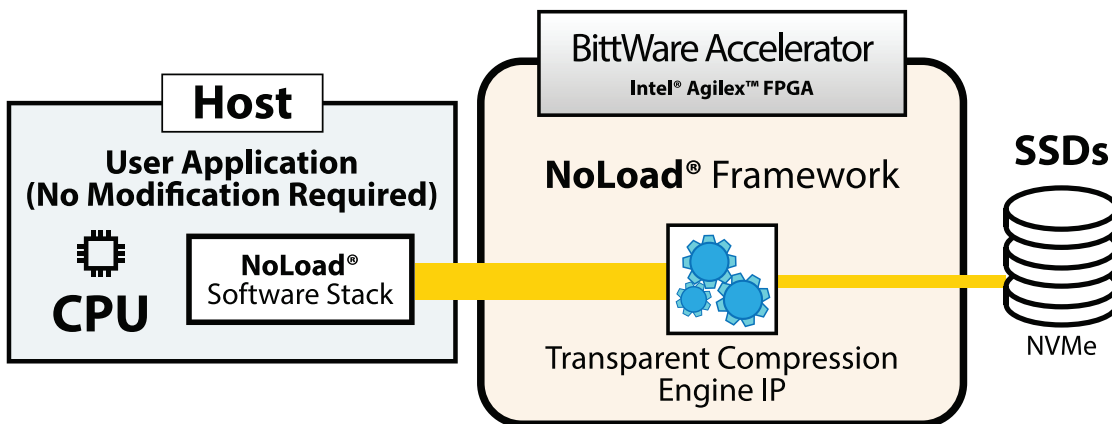By accelerating in hardware, CPU usage is cut by 96%

Easy + Simple

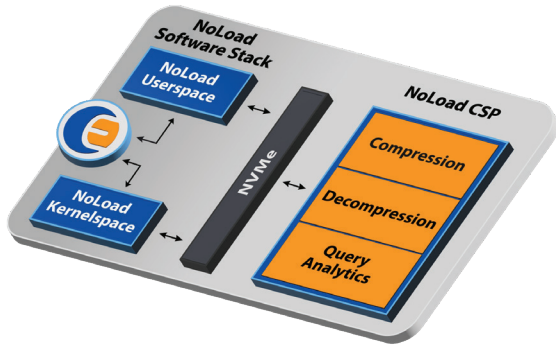Plug in a card or module and instantly your application is using hardware compressed storage

Available as a Plug-and-Play Add-In Card or U.2 Module

Compression That's Simple to Add to Your Application with No Software Changes

Host
User Application
(No Modification Required)
CPU
NoLoad®
Software Stack

BittWare Accelerator
Intel® Agilex™ FPGA

NoLoad® Framework

Transparent Compression
Engine IP

SSDs
NVMe

Transparent Compression
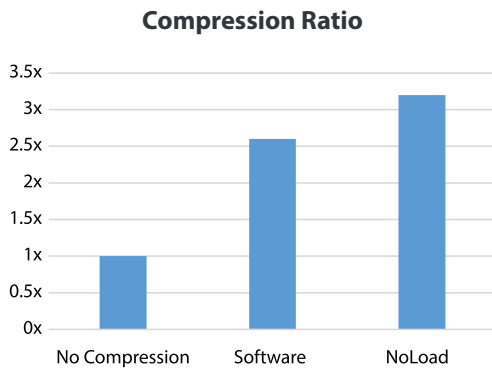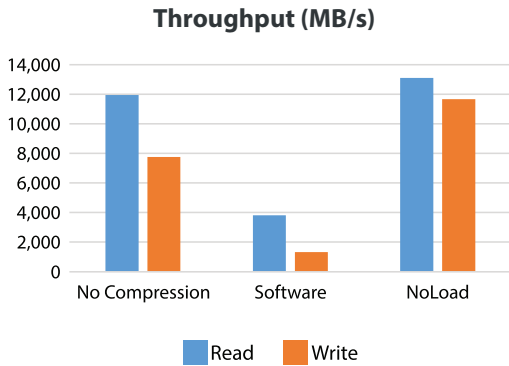## Plug-and-Play Hardware Compression

What is NoLoad?

NoLoad is a Computational Storage Processor (CSP) with Computational Storage Services (CSS) such as Transparent Compression. NoLoad can be consumed in Userspace with zero operating system changes, or in Kernelspace with zero application changes.

Performance Comparison

NoLoad Transparent Compression is compared to software (CPU-based) compression and no compression.

Throughput (MB/s)

Read   Write

Compression Ratio

The dataset used was Big Data (TeraGen), and the server utilized two IA-220-U2 acceleration modules. Compression was GZIP.
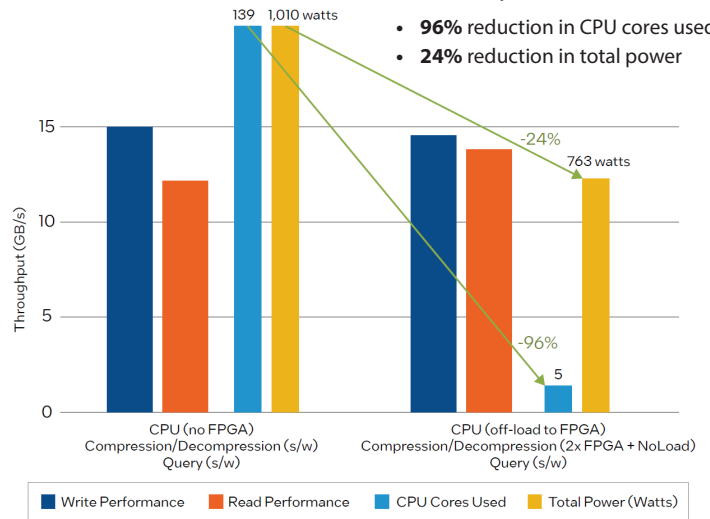
Takeaway

- **96%** reduction in CPU cores used
- **24%** reduction in total power

Write Performance   Read Performance   CPU Cores Used   Total Power (Watts)

Benchmark results for Eideticom NoLoad solution on 4th Gen Intel Xeon Scalable processors and Intel Agilex 7 FPGA accelerator cards. Data sourced from Eideticom.

Deployment Hardware

- IA-220-U2
- IA-440i

Looking for a different card? Ask us about other compatible card options

Sales Part Numbers

These part numbers help order the configuration that supports the NoLoad framework.

IA-440i-0017	BittWare IA-440i low-profile PCIe card
IA-220-U2-0002	BittWare IA-220-U2 U.2 module

To learn more, visit **www.BittWare.com**

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