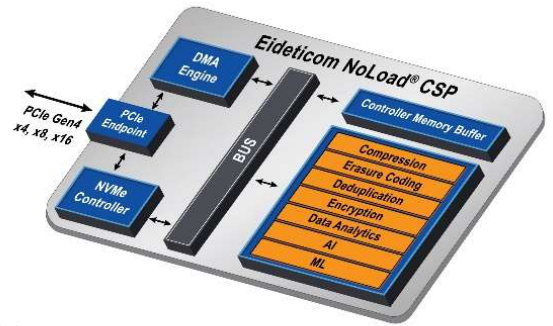


Product Brief

NoLoad[®] Alveo[™] U50 Computational Storage Processor



Overview

Eideticom's NoLoad[®] Computational Storage Processor (CSP) with Xilinx Alveo U50 Data Center Acceleration FPGA Cards

NoLoad's NVMe compliant interface provides seamless integration for all CPU platforms and has been validated on Intel, AMD, ARM and IBM Power8/9 CPUs

Eideticom's NoLoad[®] CSP supports a range of Computational Accelerators for both Storage and Compute applications, namely:

- Compression, Encryption, Erasure Coding, Deduplication, Data Analytics, AI and ML

Compatible/validated with Broadcom[®], Mellanox[®] and Q-Logic[®] RDMA NIC's

Support for Alveo U50, U200, U250 and U280 Accelerator Cards

Capacities

- 1.5 - 8 GB RAM Drive
- 0.5 – 8 GB NVMe Controller Memory Buffer (CMB)

Capabilities

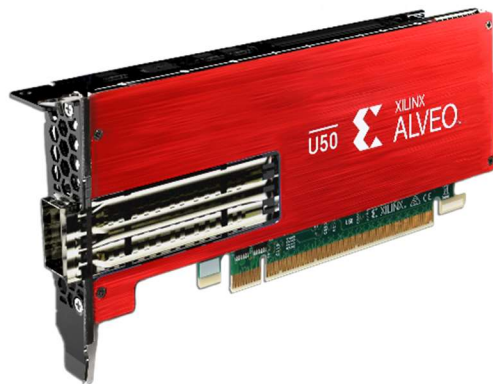
- GZIP/ZLIB/Deflate compliant compression core
- GUNZIP/ZLIB/Inflate decompression core
- ISA-L compliant RS Erasure Coding engine
- Deduplication: support for SHA-1, SHA-2 & SHA-3 (with hashing)
- AES-XTS encryption/decryption
- Supports easy integration of user developed acceleration functions

NVMe Feature Support

- NVMe 1.3 Compliant (validated by UNH-IOL)
- Admin queue and 16 I/O queues
- Supports NVMe Scatter Gather Lists (SGLs)
- CMB support (all modes)
- NVMe-MI support

Performance

- Available under NDA

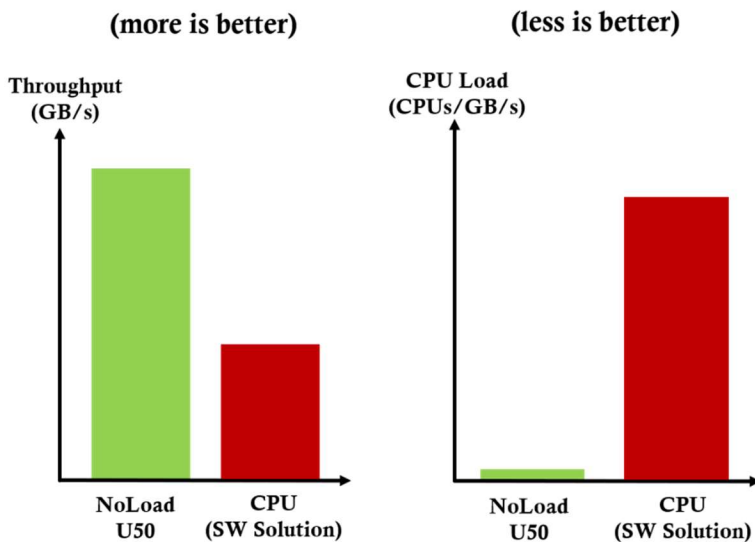


NoLoad[®] CSP – Database Acceleration

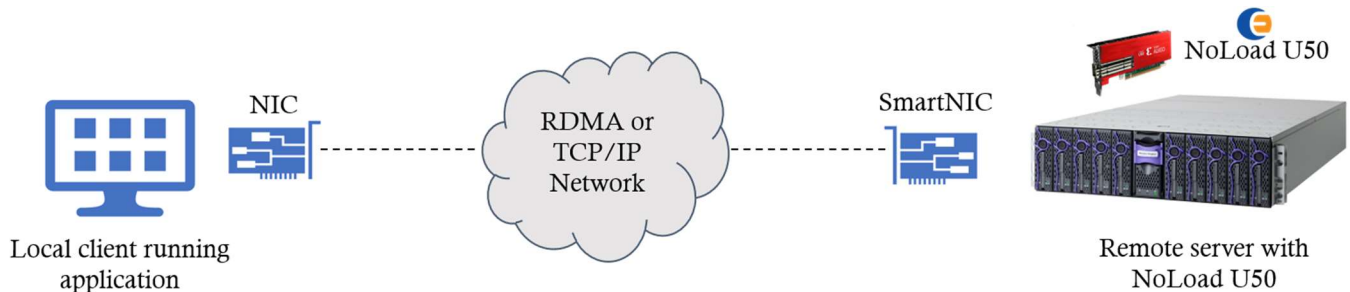
NoLoad[®] CSP with Xilinx Alveo U50

Hadoop Acceleration

25x CPU Efficiency
2.5x Job Throughput
30% Lower Total Cost



NoLoad[®] CSP – NVMe over Fabrics (NVMe-oF)



Get your FPGA Accelerators “out-of-the-box”

- NoLoad Accelerators identify as NVMe Namespaces, which can be accessed/shared using NVMe-oF
- NoLoad Accelerators located in a remote server can be accessed by any client with a RDMA or TCP/IP connection
- Disaggregation of FPGA Accelerators using NoLoad[®] CSP and NVMe-oF