

Hadoop Acceleration

Xilinx Alveo U50 Accelerated Computational Storage

INTRODUCTION

Today's world of faster and more virtualized-servers, storage, and network connections, means that workloads are growing in scale and complexity. A critical application to guarantee improved Quality of Service (QoS) is the database, and a database's interactions with storage are critical to improve overall speed and user experience.

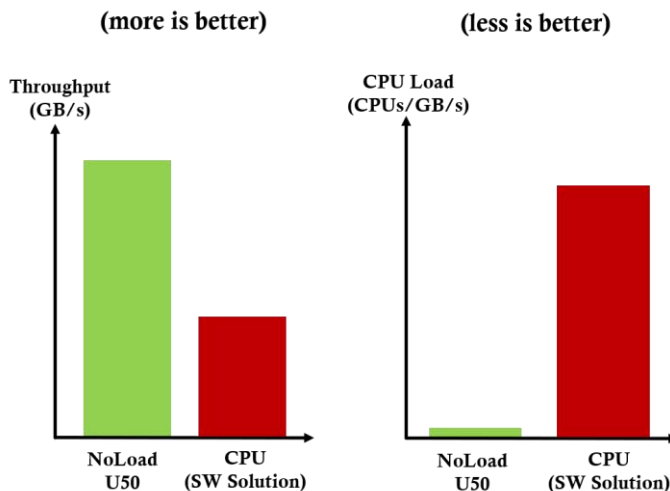
A new generation of accelerator that can optimize storage for the database is required. Eideticom's NoLoad Computational Storage Processor (CSP) delivers the flexibility to accelerate a range of database applications by leveraging hardware-based computational offloads with unmatched scalability, performance and efficiency.

KEY BENEFITS

- **Reduced TCO/TCA:** Lower Power with Reduced I/O
- **CPU Offload:** Supercharged Application Performance with dramatically improved Quality of Service (QoS)
- **Plug-and-Play:** NVMe Complaint, Inbox drivers for all major operating systems

SOLUTION OVERVIEW

Eideticom's NoLoad[®] Computational Storage Processor (CSP) with the Xilinx[®] Alveo[™] U50 was used to accelerate Hadoop. The NoLoad CSP Alveo accelerates both Compression and Erasure Coding, making it the ideal solution to accelerate MapReduce workloads.



SOLUTION BRIEF



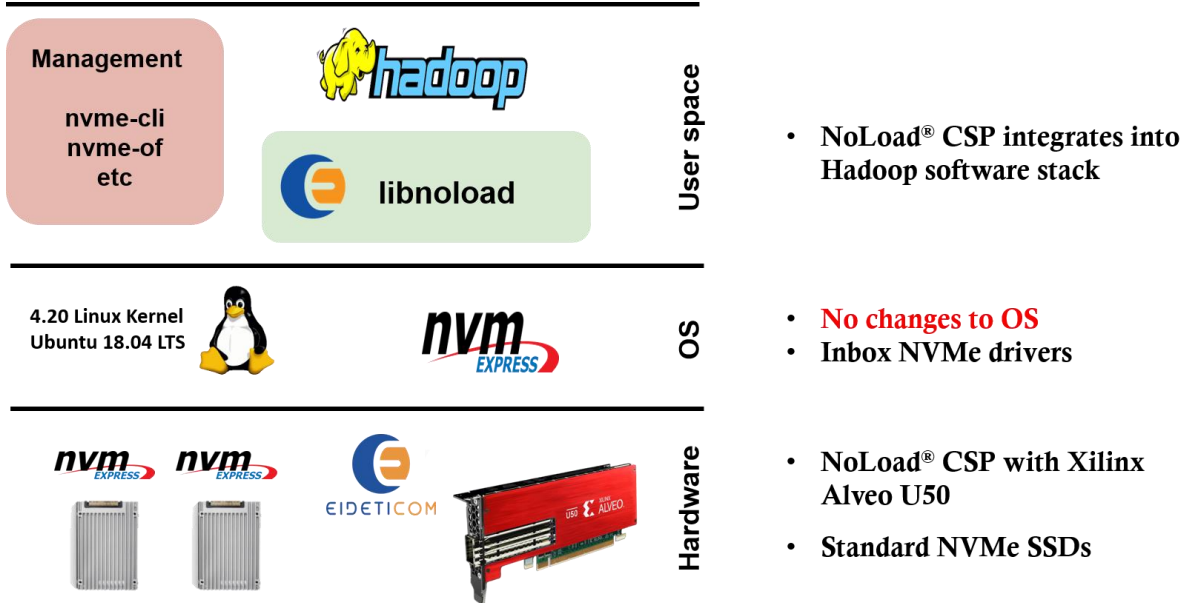
- 2.5x Increased Job Throughput
- 30% Lower Total Cost
- 25x Reduced CPU load



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SOLUTION DETAILS

Eideticom's NoLoad® CSP with the Xilinx® Alveo™ U50 solutions are ideal for database acceleration; and integrate directly into software stacks like Hadoop.



RESULTS

Eideticom's NoLoad® Computational Storage Processor (CSP) with Xilinx® Alveo™ U50 solution resulted in significant improvements when compared to a software-only solution.

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

Eideticom's NoLoad® CSP with Xilinx® Alveo™ U50 results in accelerating data center infrastructure, enabling greater scalability and dramatically lowering cost.

TAKE THE NEXT STEP

Learn more about [Alveo accelerators](http://www.xilinx.com/alveo) www.xilinx.com/alveo

For more information about Eideticom, please visit www.eideticom.com

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