

# STORAGE VISIONS® 2018

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AN ENTERTAINMENT STORAGE ALLIANCE™ EVENT



**Roger Bertschmann, CEO, Eideticom**

## **TITLE**

**Computational Storage using NVM Express**

## **ABSTRACT**

Computational storage acceleration promises the capability to offload the host CPU for processing intensive tasks such as error protection and compression. By leveraging the NVMe specification to provide access to storage acceleration functions, existing out-of-box drivers and storage tools can be used to test, benchmark, and deploy the accelerator card. We describe the use of Eideticom's NoLoad FPGA-based acceleration card with a firmware-based NVMe controller to provide computational storage acceleration services over NVMe. We discuss the stack from the NVMe controller to user software to take advantage of acceleration resources over NVMe, highlighting the benefits and challenges of using NVMe. We will also discuss emerging standardization efforts to improve the ecosystem for providing computational storage in storage standards including NVMe.

## **BIOGRAPHY**

Roger is the CEO of Eideticom, a start-up focused on accelerating data center storage and compute. Previously, he was Senior Director of Mixed Signal IP Development at PMC Sierra (Microchip) where he led a team developing Serdes, DDR and FEC for PMC's Enterprise Storage and Communication business units. In addition, he was a founder of several previous successful startups including Rad3 Communications, a communications IP provider which was acquired by PMC Sierra in 2011, SiWorks Inc., a leading wireless IP provider, acquired by Nextwave Wireless and Dynastream Inc (acquired by Garmin). Roger is also an advisor to iNovia Capital, an early-stage high-tech venture capital fund. Roger holds a B.Sc. in Electrical Engineering from the University of Waterloo and a M.Sc. from the University of Calgary.