Forum A-31: PCIe® NVMe® Development Issues

Thu, Aug 10, 2017

8:30am-9:35am and 9:45am-10:50am

Organizer and Chairperson - Deepankar Das

Co-organizer - Rakesh Cheerla

Presentations

1. Making the Right Power/Performance Tradeoffs for NVMe SSDs — Rick Huang

2. Examining Latency of NVMe SSDs for Time-Critical Applications — John Gatch

3. Developing Low Latency Systems for Hyperscale Data Centers — Engling Yeo

4. Designing Next-Generation FS for NVMe and NVMe-oF — Liran Zvibel

5. NVMe Direct 2.0: An Enhanced User-space I/O Framework for NVMe SSDs — Hyeongjun Kim

Panel Discussion

How NVMe Flash is solving hard problems in the new generation of applications – Driverless Cars, Machine Learning, IoT, Faster Flash storage systems and others.

Organizer/Chairperson

Deepankar Das

Deepankar Das is the CTO of Sureline Systems, driving the leading edge in application mobility to allow data & applications move seamlessly between physical, virtual, and cloud infrastructure. He was Head of Eng for the EMC Data Domain file system where he worked on nextgen Data Protection in the Cloud and PBBA products. He was Head of Software at Avalanche Technology, where he architected and built a state of the art AFA. As Head of Software at Violin Memory, he worked on high performance Flash software storage stack. He has also worked on Distributed Filesystems and OS at Panasas and Sun Microsystems. He holds a Master's degree in Computer Science from Andhra University (India).

Co-organizer

Rakesh Cheerla

Rakesh Cheerla is currently Product Manager for Storage Solutions at Xilinx, where he focuses on data center design, hardware management, and open storage standards. He was previously Sr Director Products at CNEX Laboratories, a startup developing flash controller chips, where he was in charge of determining customer requirements and defining products to meet them. Before joining CNEX, he worked at SMART Modular Systems, LSI, and Extreme Networks. He has focused on developing product requirements, defining features, and managing engineering teams. He holds an MBA from Columbia University and an MSEE from Arizona State University.

Speaker

Rick Huang

Rick Huang is an SSD product marketing manager at Silicon Motion, where he focuses on the company's widely used SSD controllers. He has presented at several previous Flash Memory Summits. He has over 10-year experience in mobile communication system design and SSD product marketing. He had several successful experiences to enable client SSDs with branding SSD customers. For example, Micron Crucial SATA SSD BX100/BX200, AData SATA SSD SP550/SU800, and AData PCIe SSD SX8000. He holds an MSEE from National Tsinghua University, Taiwan.

Speaker

John Gatch

John Gatch is a Technologist in the Data Propulsion Labs at Western Digital, currently focusing on the development and implementation of new methods for analyzing and demonstrating Quality of Service (QoS) metrics. A new area of research is sub-microsecond testing and measurement for faster devices such as Storage Class Memory.

Speaker

Hyeong-Jun Kim

Hyeong-Jun Kim is doing his Ph.D. in the Department of Computer Science at Sungkyunkwan University in South Korea. His current research interests include computer systems, and storage systems, especially on NVMe storage. He has developed and published the NVMeDirect framework for directly accessing NVMe storage from an user-space application. The framework can be downloaded on github. His research research interest also include accelerating application using user-level framework on NVMe storage devices.

Speaker

Engling Yeoh

Self Introduction

Speaker

Liran Zvibel

Self Introduction