



Luca Bert, Director SSD Architecture and Advanced Development, Seagate

TITLE

IO Determinism: Workload Management With NVMe

ABSTRACT

Indeterminate response times for concurrent workloads can make scaling a set of applications difficult, and the problem worsens with each new generation of SSD. This talk will provide an overview of how the NVMe standard addresses this issue with a new capability called "IO Determinism" (IOD), including different ways in which applications can make use of this new feature.

BIOGRAPHY

Luca Bert is Director SSD Architecture and Advanced Development at Seagate, focusing on SSD and system level innovation in the NVMe and NVMe-oF space. He has over 30 years of storage industry experience, including stints at Olivetti, AMI, LSI, and Avago. His main technology areas of competence are storage controllers, RAID, and storage architectures. Over his career he designed the first SCSI and RAID controllers for Olivetti, was part of the original team that developed the award winning MegaRAID controller at AMI and LSI and lead most of the architectural improvements for MegaRAID and storage solutions in Enterprise and Hyperscale environments, including clustering, IO Virtualization, caching and scale-out solutions. He has been a speaker in several industry events, like Intel Developers Forum, Open Compute Project, Flash Memory Summit and Storage Network World, mainly focusing on technology solutions and evangelism. He holds ~40 patents, all of them focused on RAID, caching, virtualization and other storage techniques. He got his university degree with honors in applied physics from the University of Turin.