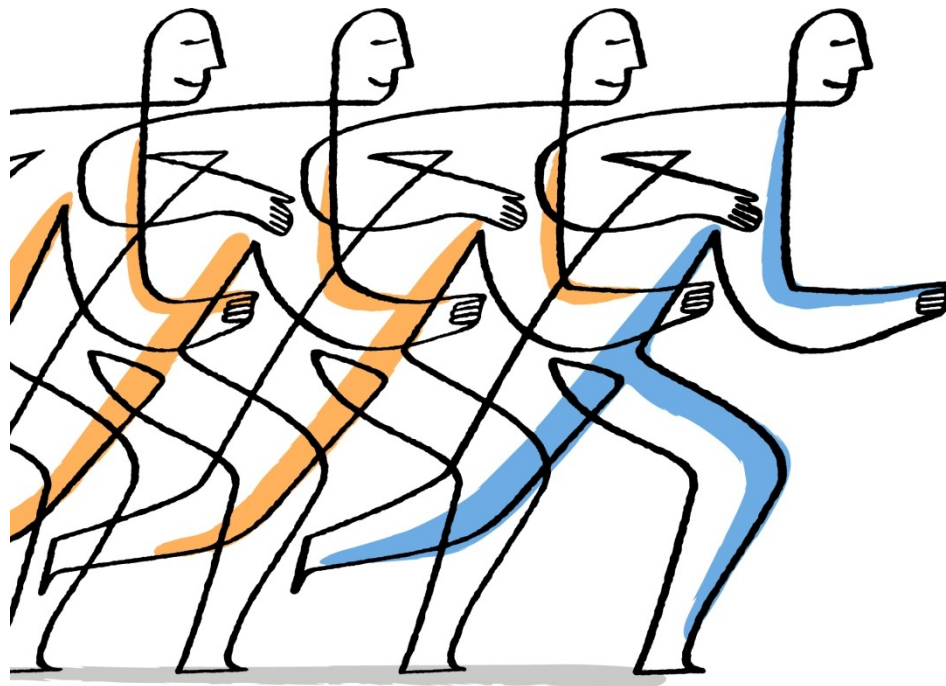




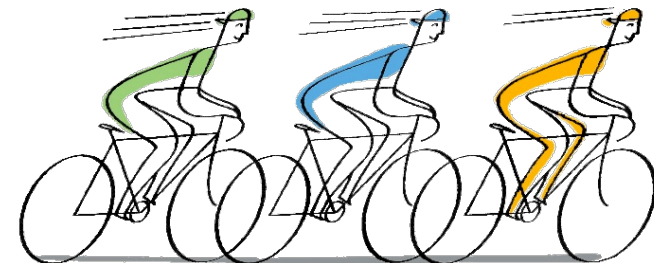
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HRSK-II Storage TU Dresden





Storage Research Agenda



- Find problematic access patterns proactively
- ... and assign users to to different storage areas automatically
- How:
 - Continuous monitoring of resources, including controller caches etc.
 - I/O request tracking
 - Correlation between I/O performance data and data from the batch system etc.



HRSK-II Storage Subsystem

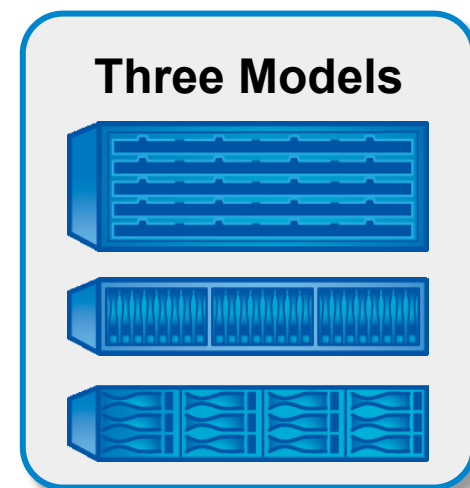


- Phase 1 (acceptance tests running)
 - Four pairs of E5560, 1 PiB Lustre File System
 - 4 File Servers, 2 MDS Server
 - HA via standard Bull Technology (shine, corosync, peacemaker)
 - 27 GB/s read, 22 GB/s write
 - 3 GB/s for single client

- Phase 2 (end of 2014)
 - About 5 PB in SATA
 - Dedicated SSD file system

E5500 Product Overview

- Dual controllers with multiple interface options
 - 6Gb SAS (four ports per controller)
 - 40Gb IB (two ports per controller)
- 6Gb SAS drive ports support up to 384 SAS disk drives
 - FDE on 15K, 10K, 7.2K drives
 - Up to 24 SSD's
- 24GB of cache memory
 - Mirrored, battery-backed, destaged to flash
- Three models to best meet requirements

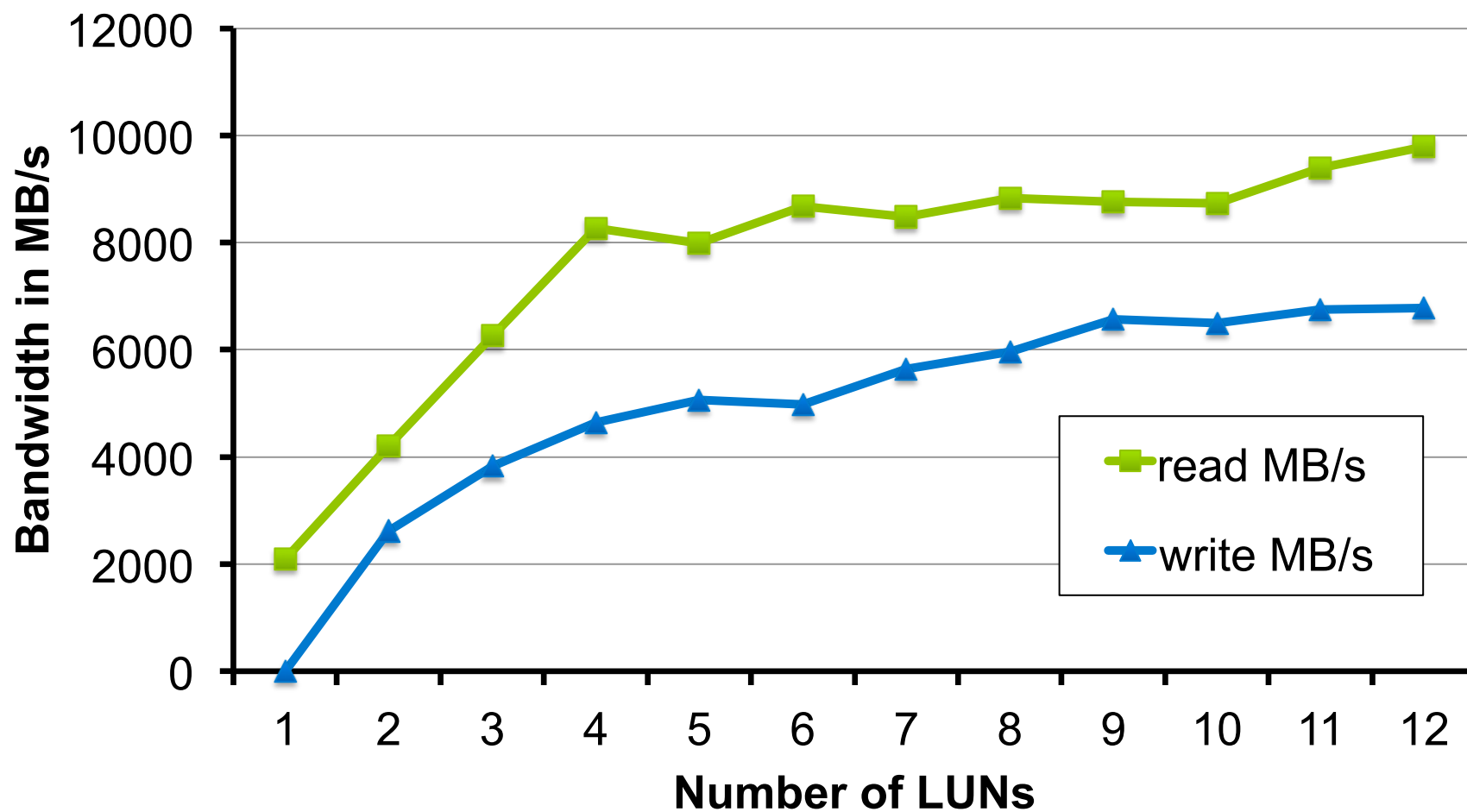




E5560 raw performance



2 server accessing a single E5560





HRSK-II Phase 1 OSS Layout

