



Shared NVMe for High Performance Spectrum Scale Clusters

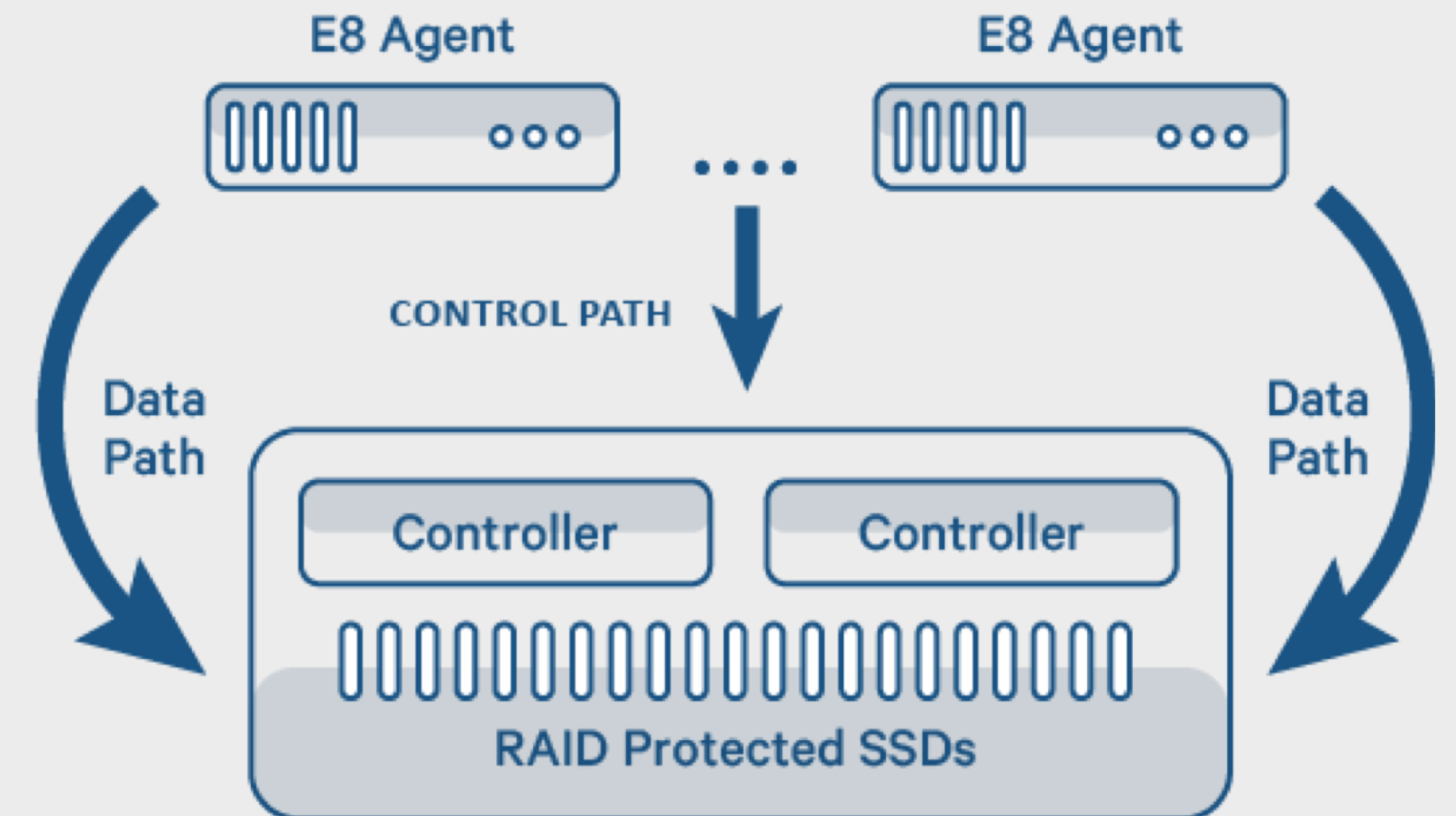
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May 8th 2019



The E8 Storage Difference

A new architecture built specifically for high performance NVMe SSDs + 100GE/IB networks

- **Direct drive access for near line rate performance**
 - Separation of data and control paths; no controller bottleneck
 - Offloads up to 90% of data path operations to E8 host agents
- **Simple, centralized management**
 - Intuitive management GUI for host / volume management
 - E8 host agents auto-discover assigned LUNs
- **Unleash the parallelism of NVMe SSDs**
- **Scalable in multiple dimensions**
 - Scaling compute scales performance horizontally
 - Scale storage separately from compute by adding SSD enclosures

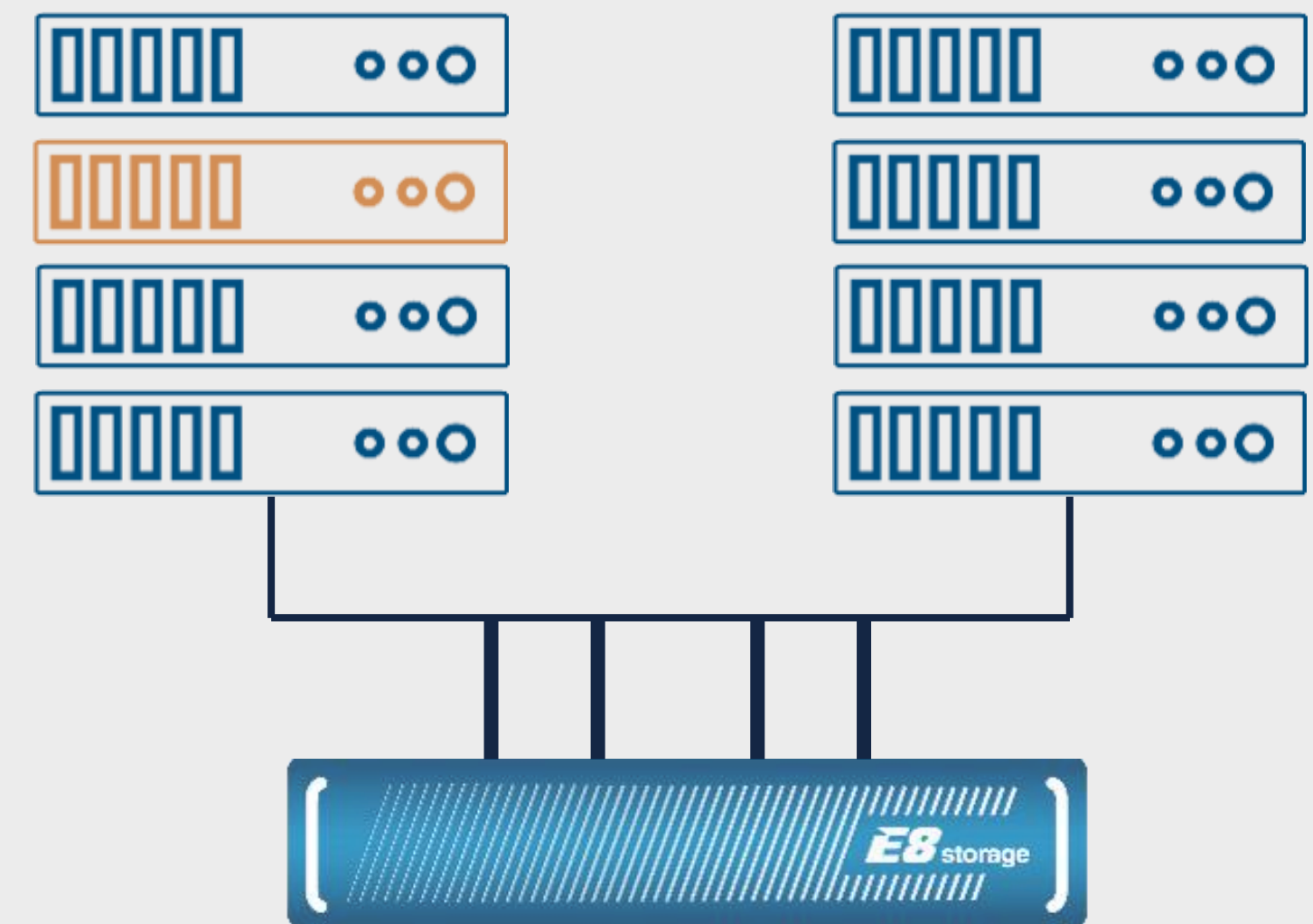


Designed for Availability and Reliability

No single point of failure anywhere in the architecture

- **Host agents operate independently**
 - Failure of one agent (or more) does not affect other agents
 - Access to shared storage is not impacted
- **RAID data protection with virtual spare capacity**
- **Network multi-pathing with fast fail-over**
- **Enclosure high availability**
 - Option 1: HA enclosure + dual-ported SSDs
 - Option 2: Cross-enclosure HA + single-ported SSDs

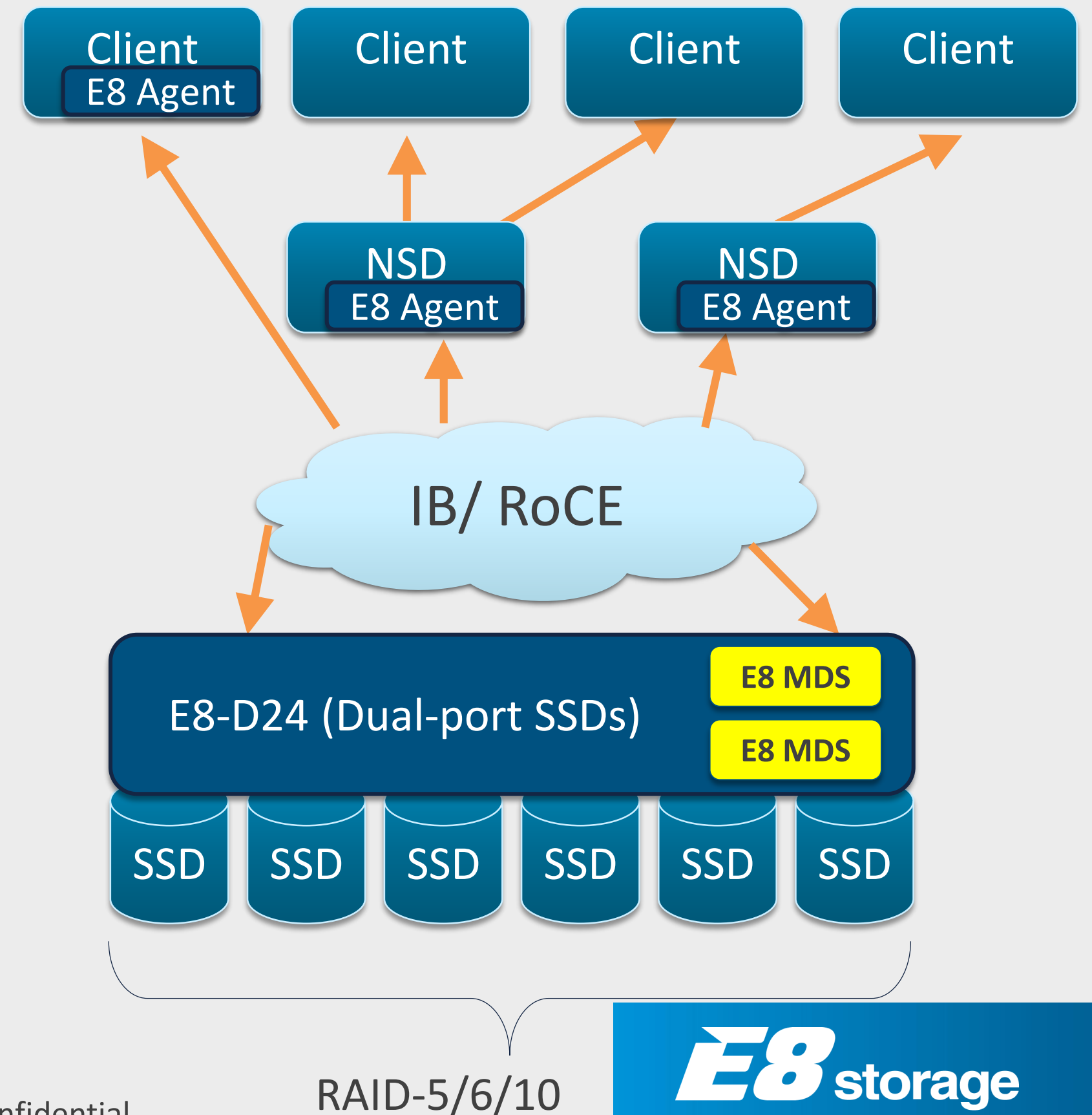
Host Servers with E8 Host Agents



E8 with IBM Spectrum Scale

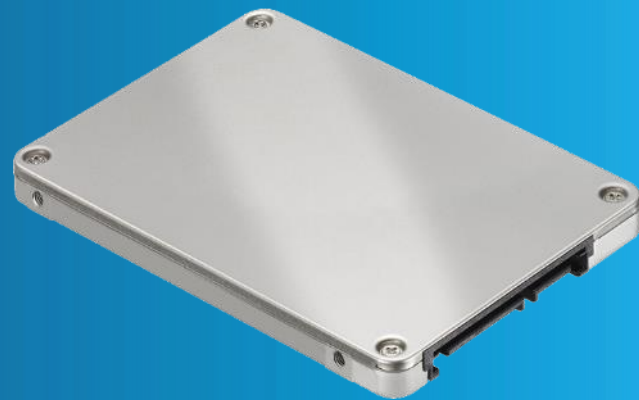
Multiple Deployment Options

- Standalone pool
- Local Read Only Cache (LROC)
- High Availability Write Cache (HAWC)
- Metadata repository (RAID 10 recommended)



E8 storage

When Performance Matters



**PCIe SSD
Performance**



**Centralized Storage
Reliability**



**Hyper-
scalability**



**Affordable
100% COTS**