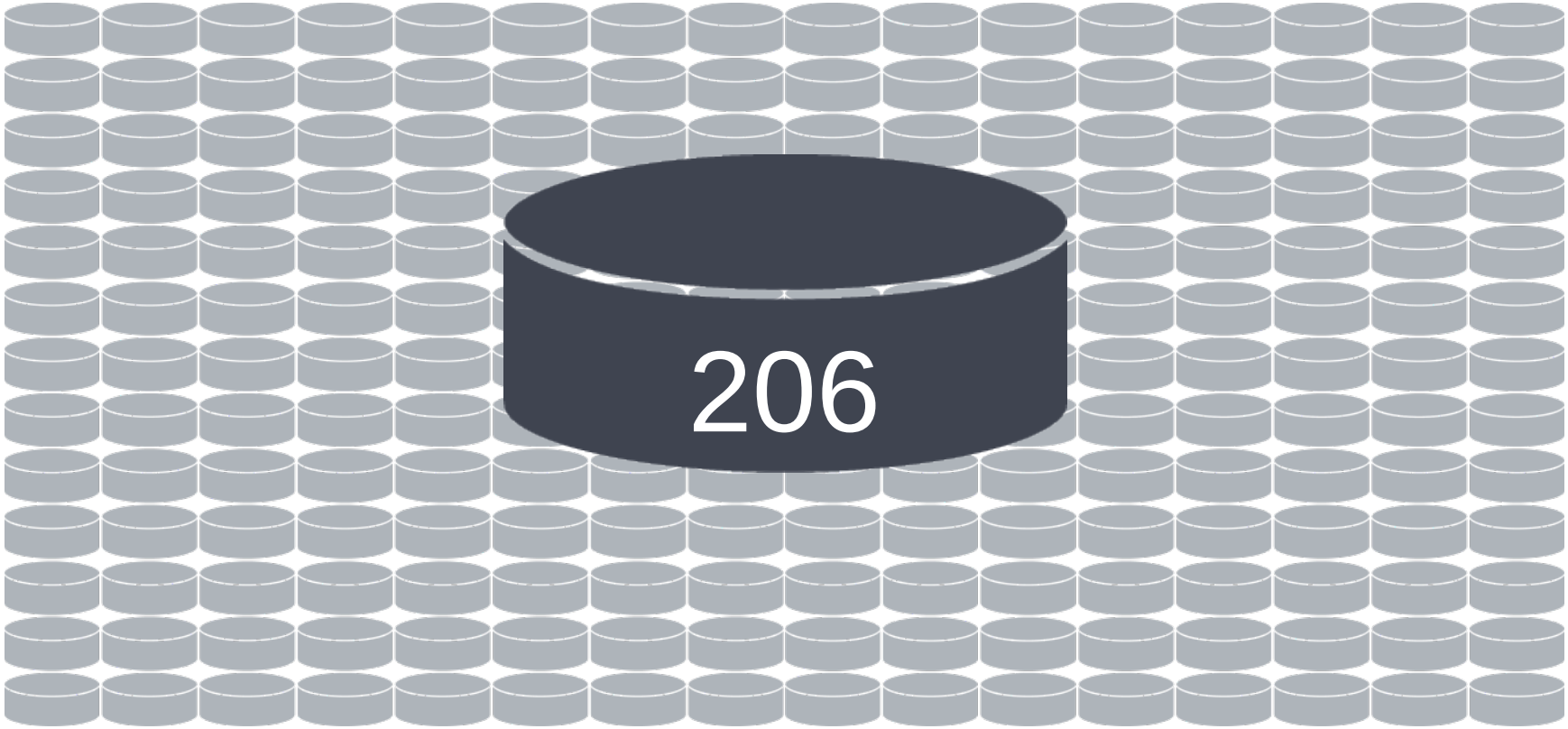
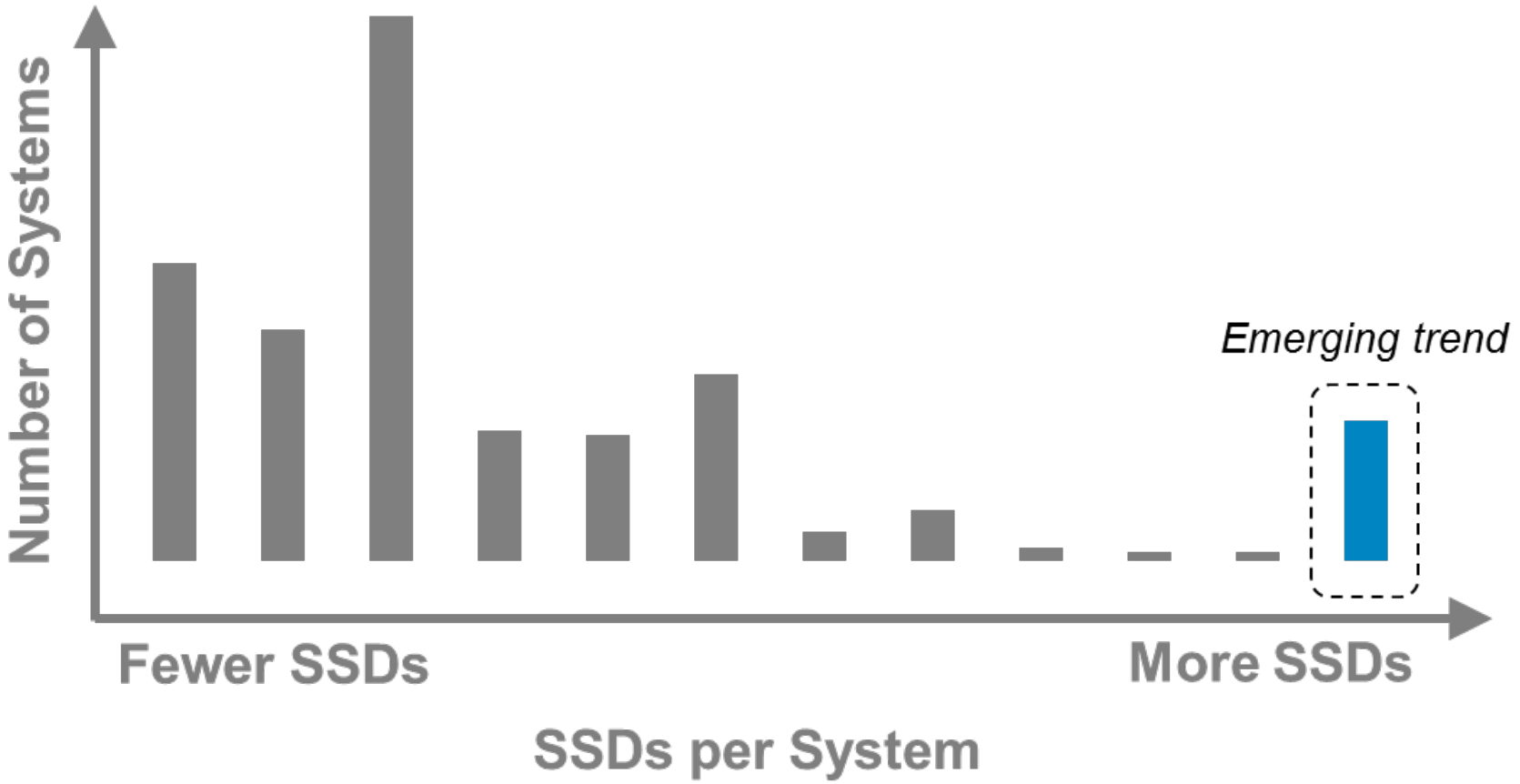
SSD Tiering

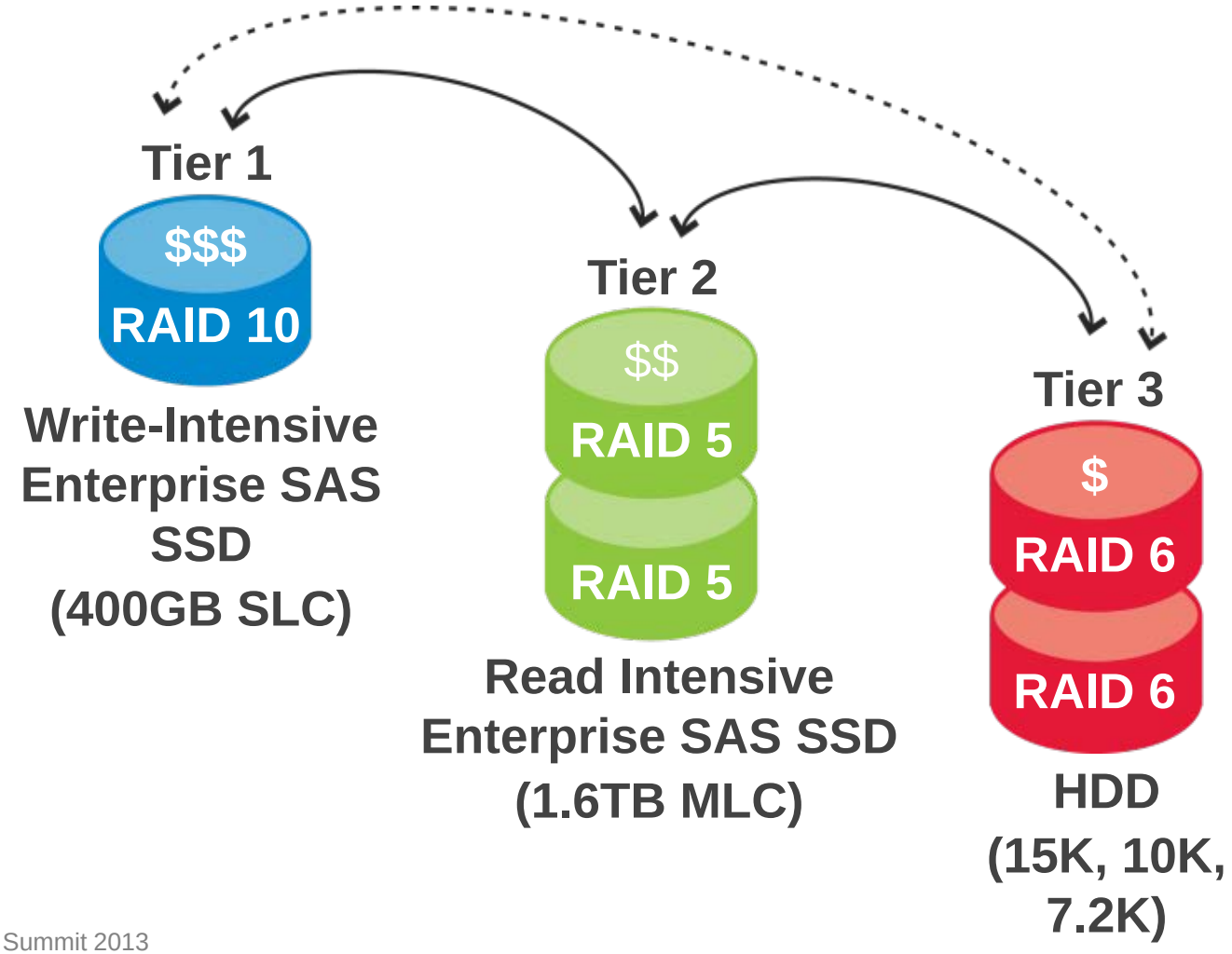
John Shirley
Sr. Manager Advanced Planning
Dell Storage


206

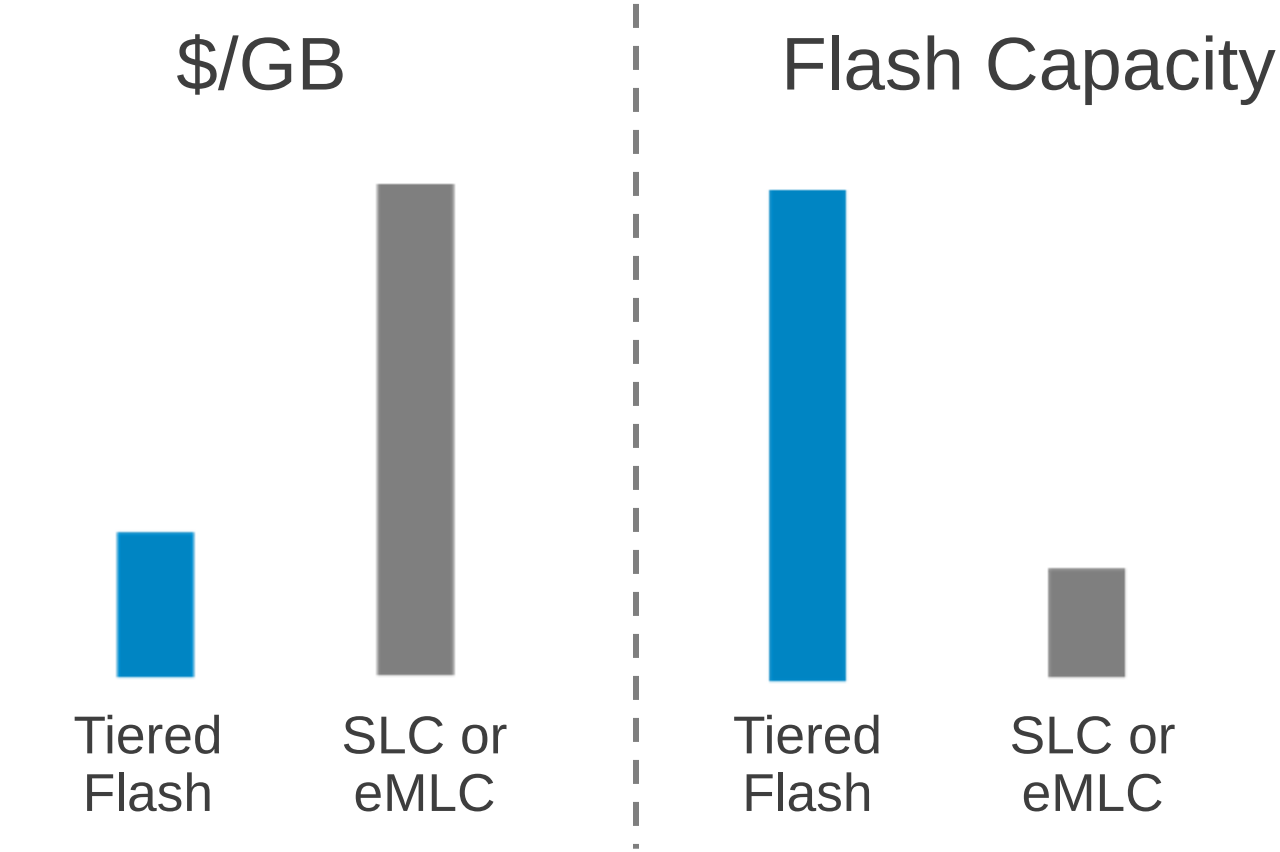
Emerging SSD Trends



SSD Tiering


Tier 1
$$$
RAID 10
Write-Intensive Enterprise SAS SSD (400GB SLC)
Tier 2
$$
RAID 5
RAID 5
Read Intensive Enterprise SAS SSD (1.6TB MLC)
Tier 3
$
RAID 6
RAID 6
HDD (15K, 10K, 7.2K)

Benefits of Tiered Flash



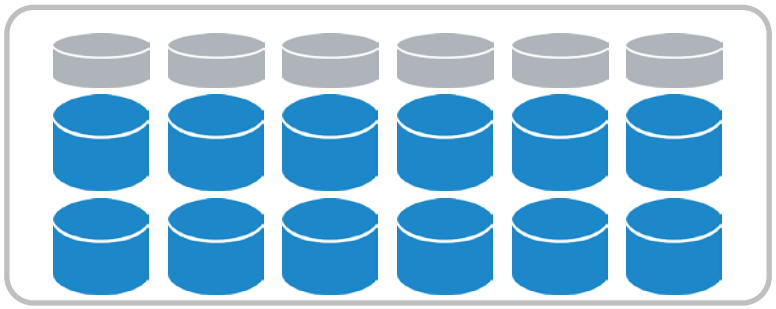
Advanced software required to enable tiered flash

Economic Benefits of Tiering Flash

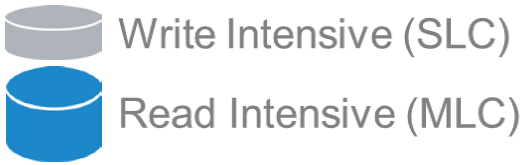
- ▼ HW costs
- ▼ SW costs
- ▼ Support costs

= 1/5 the cost

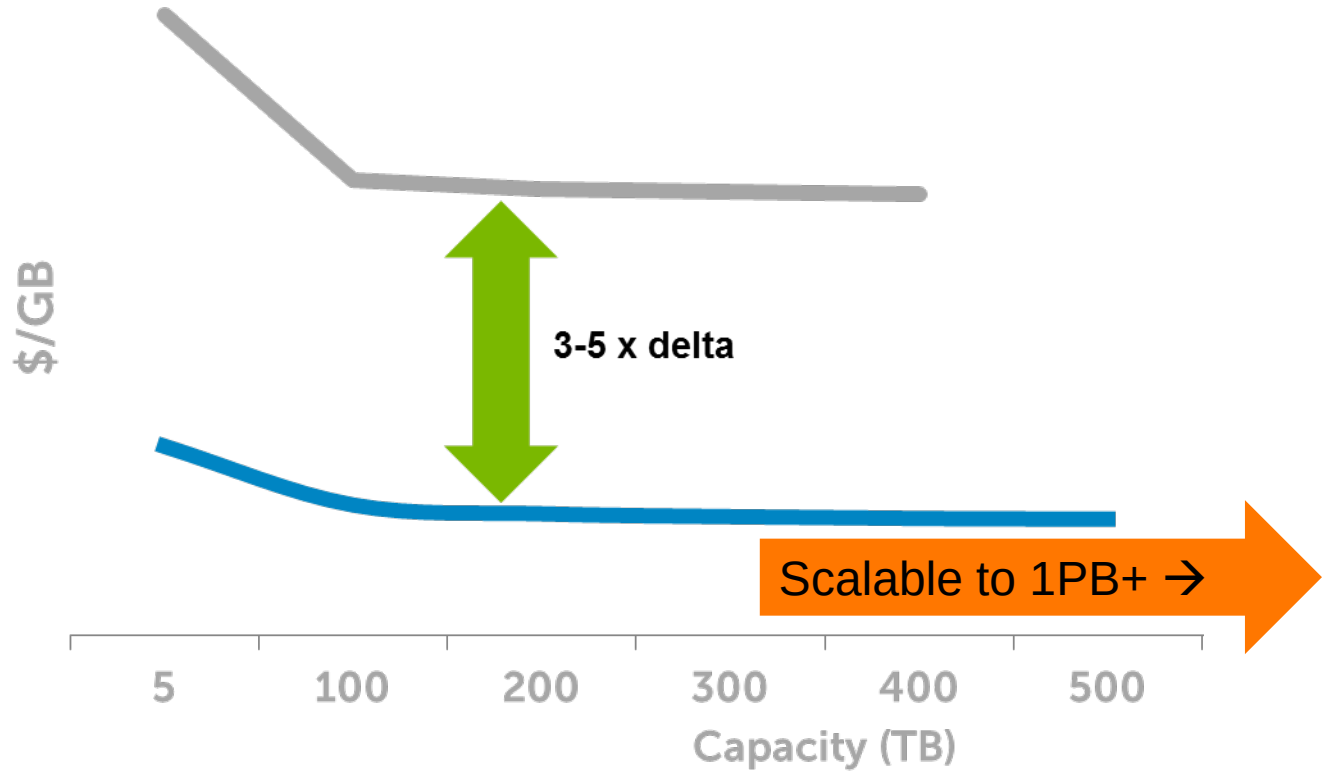
SSD Tiering



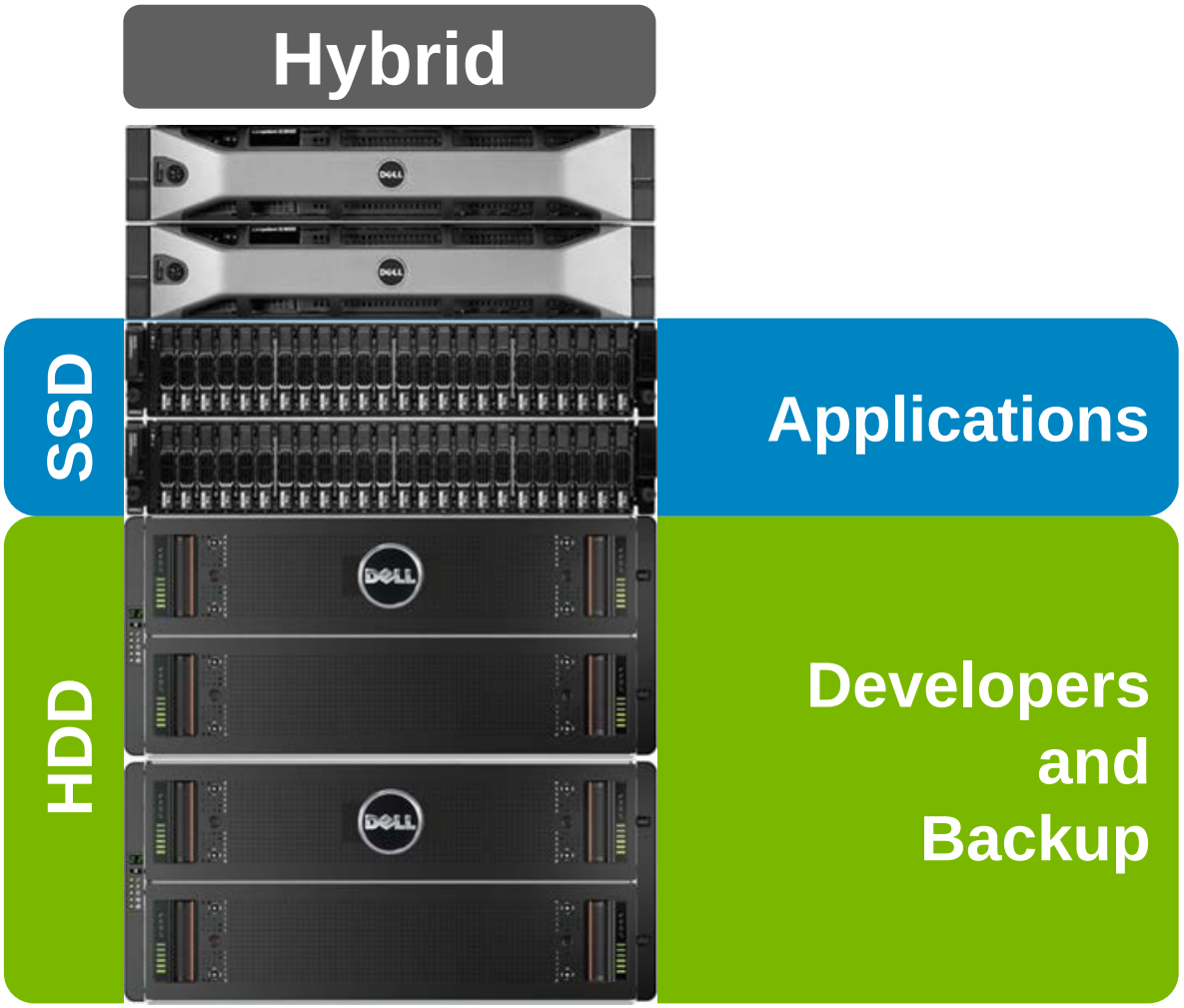
SLC or eMLC



Changing the economics of flash



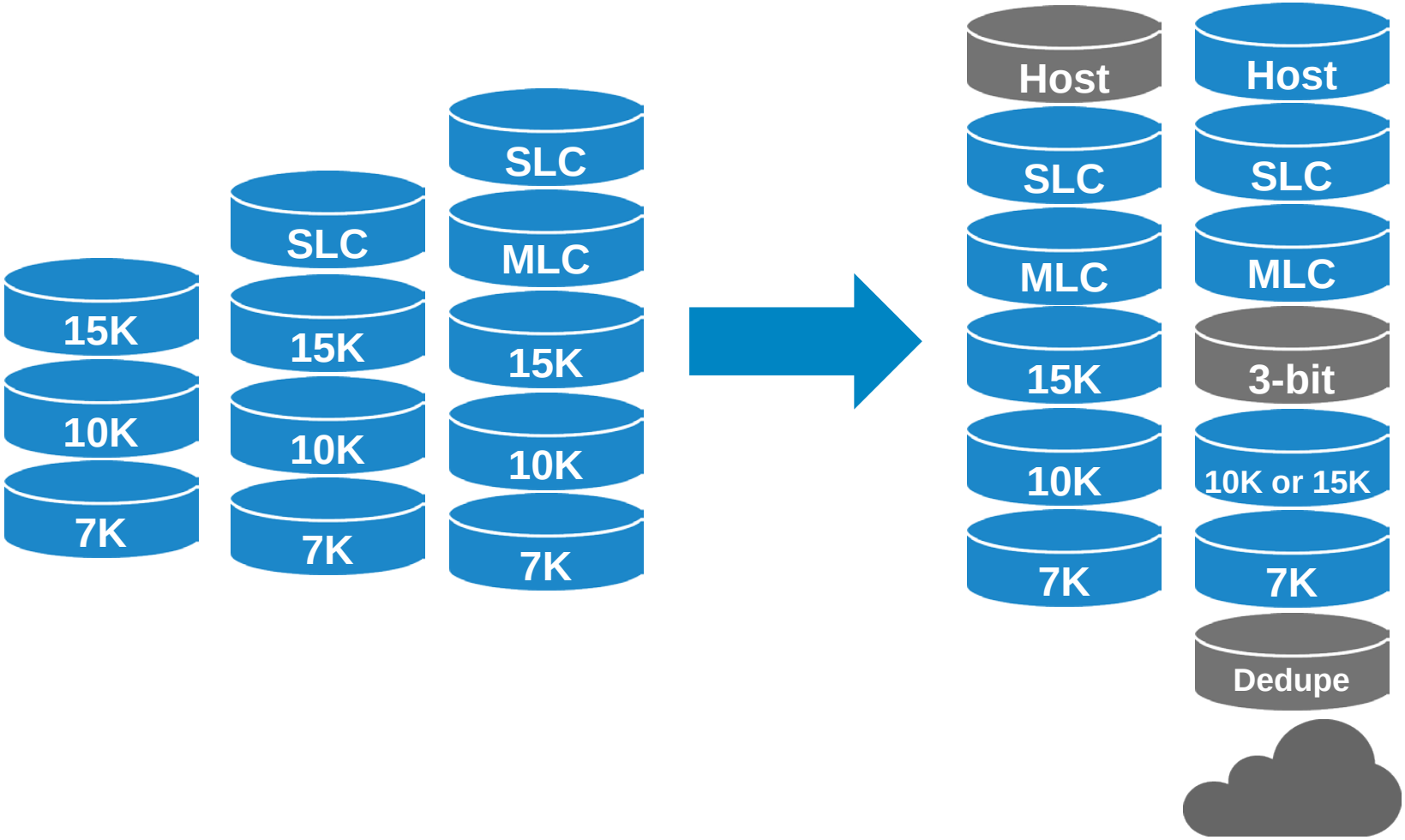
Flash Tiering with Spinning Disk



"Everything is managed from a single pane of glass…. We can manage storage with a couple of clicks"

Paul Jess, Systems Technician, Minnesota Wild

What's Next?


15K
10K
7K
SLC
15K
10K
7K
SLC
MLC
15K
10K
7K
Host
SLC
MLC
15K
10K
7K
Host
SLC
MLC
3-bit
10K or 15K
7K
Dedupe