



SCSI Trade Association Update

Mike James

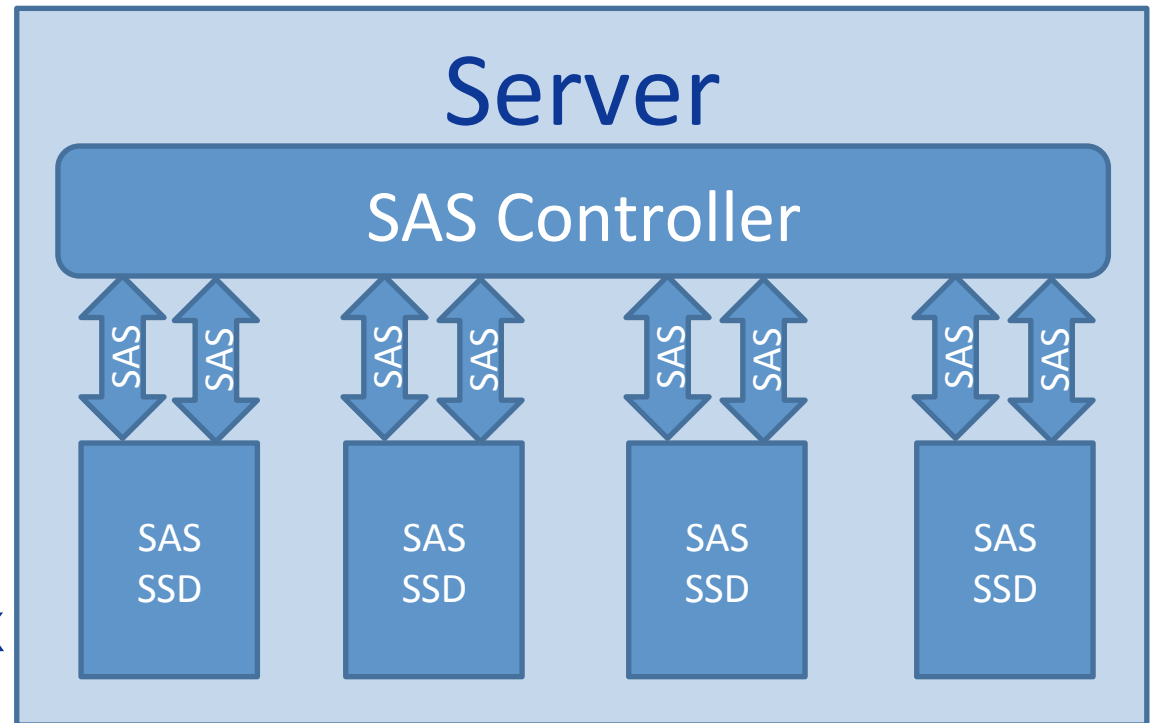
SanDisk Corporation

Board of Directors, SCSI Trade Association



MultiLink SAS™ Increased Throughput

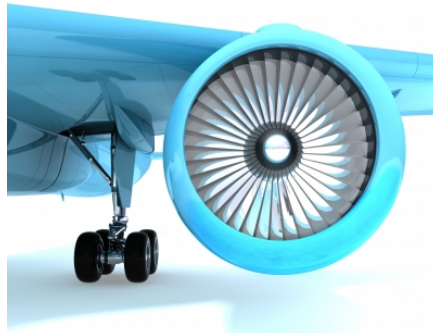
- SAS SSDs support two SAS ports
 - Standard connectors
 - SFF-8680/8639
- Servers connect one port today
- 2.4 GB/s full-duplex per SSD possible



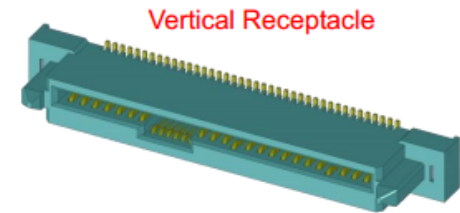
Express Bay Components



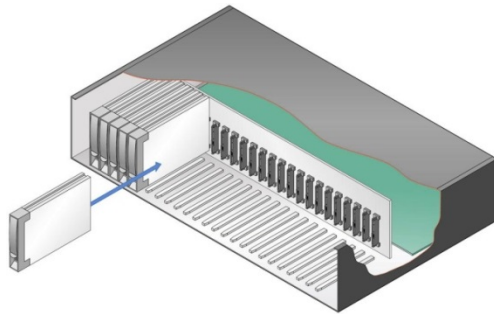
25W Power



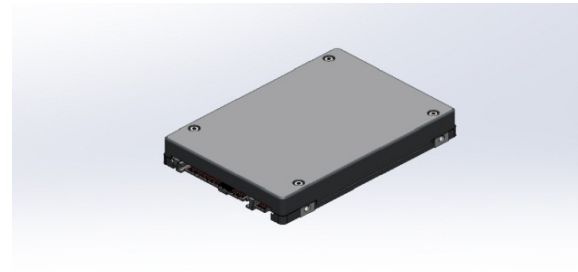
Cooling



Multifunction
Connector

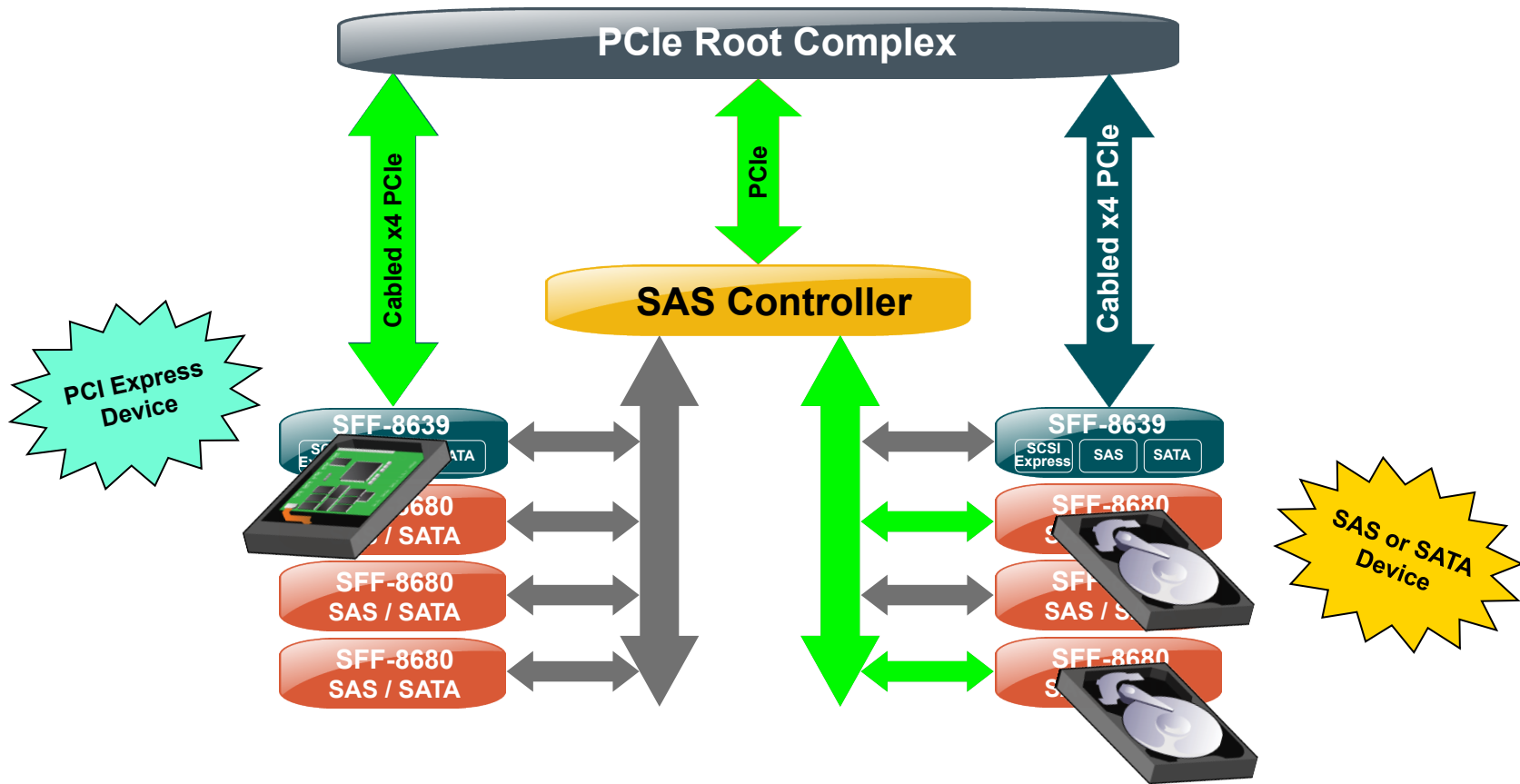


Accessibility /
Serviceability

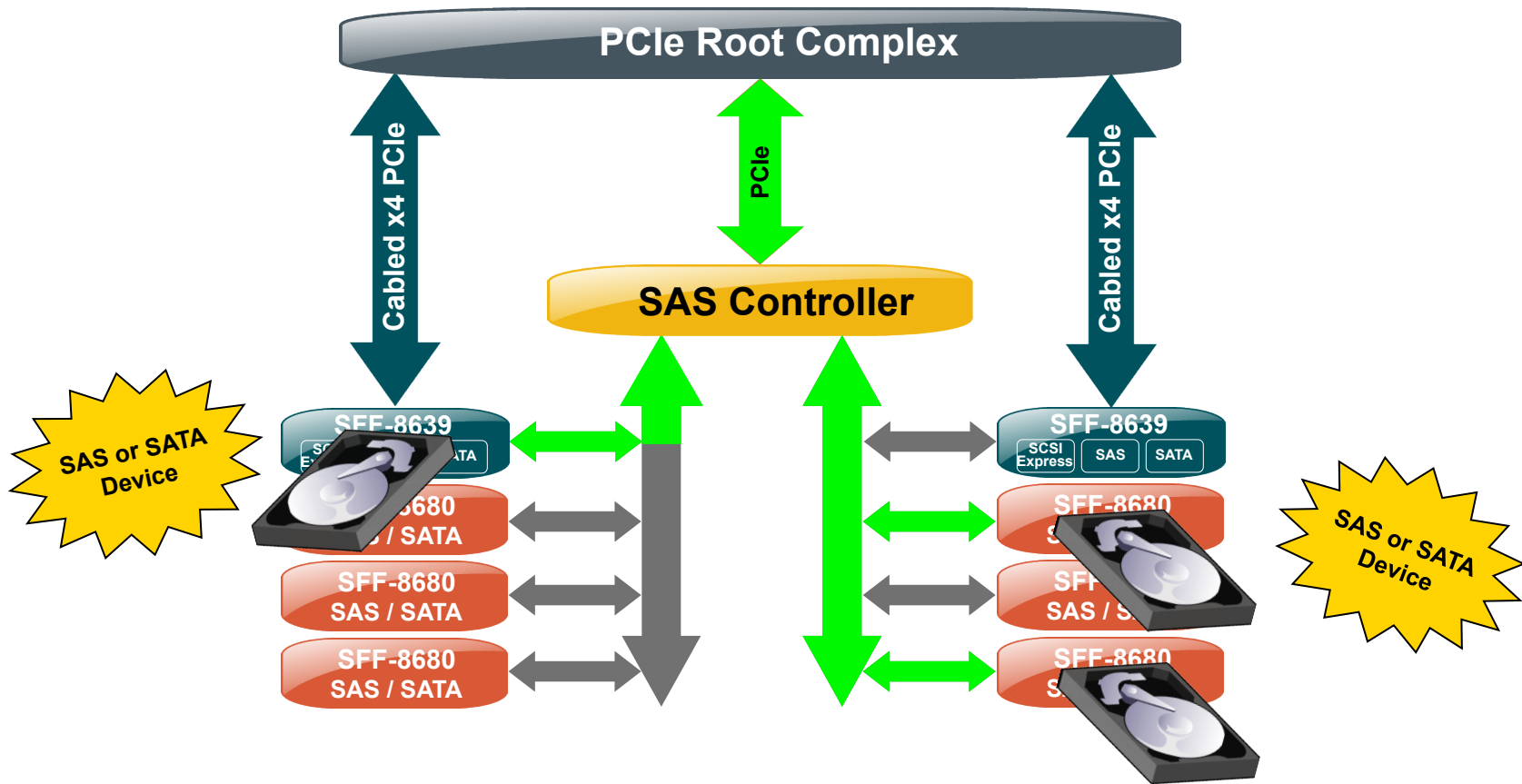


Traditional Drive
Form Factor

Express Bay Connectivity



Express Bay Connectivity





Beyond 12Gb/s SAS Continues to Evolve

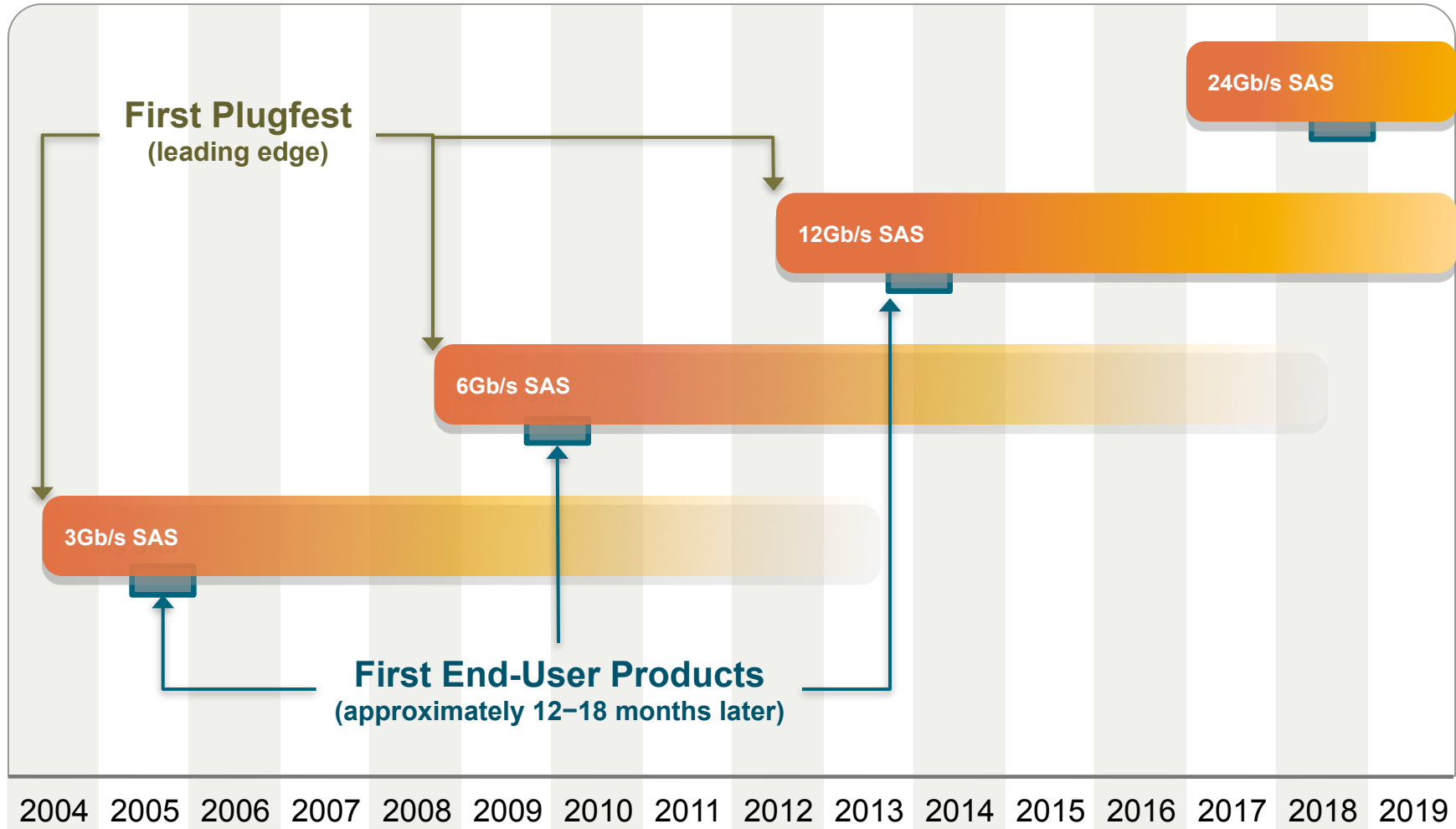
- SAS Roadmap moving forward
 - 24Gb/s SAS specification in development
 - Preserve 6Gb/s SAS, 12Gb/s SAS, and 6Gb/s SATA usage models and compatibility
 - 12Gb/s SAS controllers now shipping at >1 million IOPs
- Proven Reliability, High Availability, and Serviceability
- SAS ecosystem in place
 - Test and measurement equipment
 - Internal and external connectors and cabling
 - HDDs and SSDs shipping today



24Gb/s SAS Development Progress

- 24Gb/s SAS is definitely feasible
- T10 investigations include:
 - More efficient encoding
 - Forward error correction implications
 - Targeting channels greater than 20 inches

SAS Roadmap



* SAS Roadmap –SCSI Trade Association –March 2014