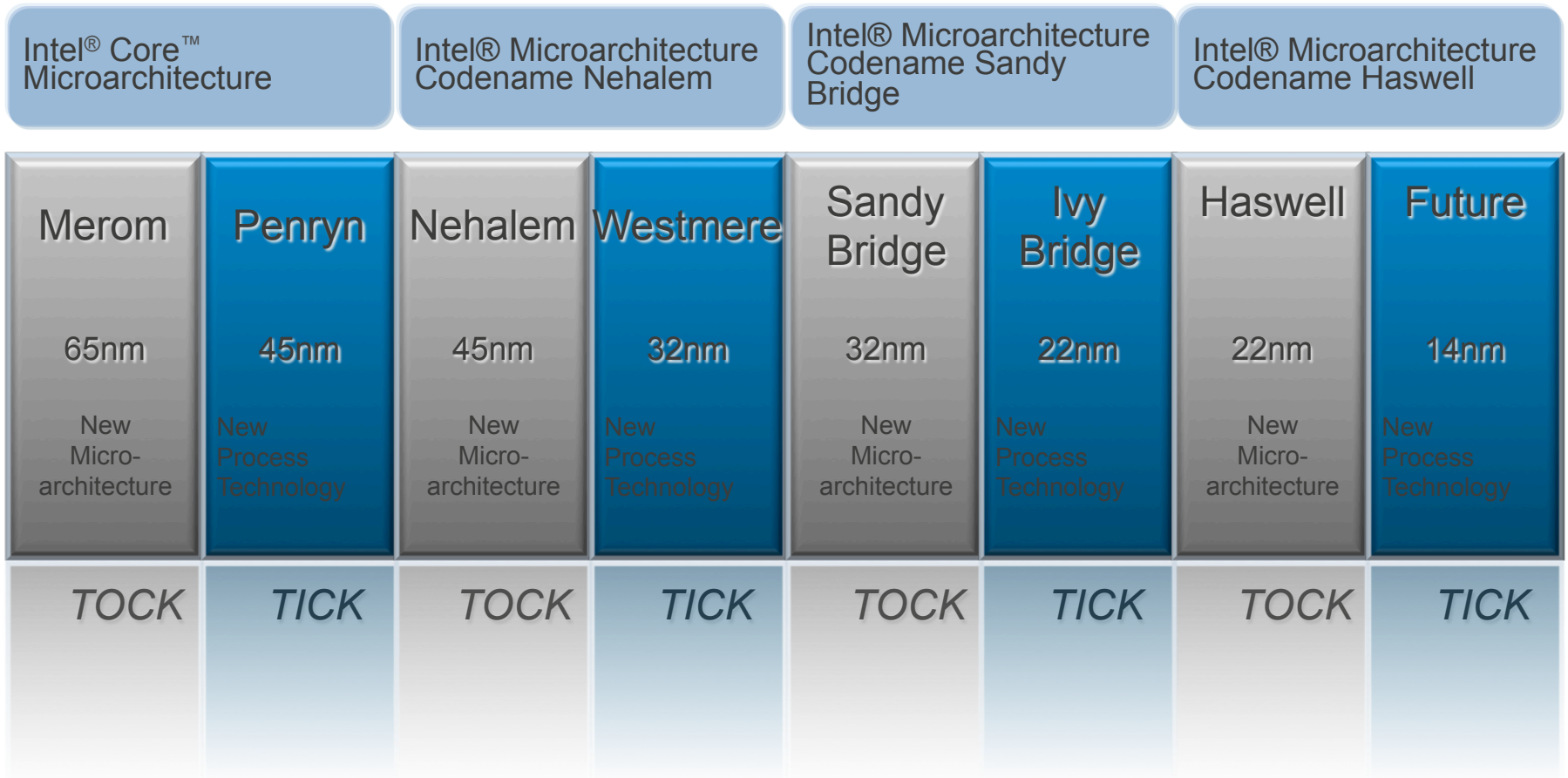
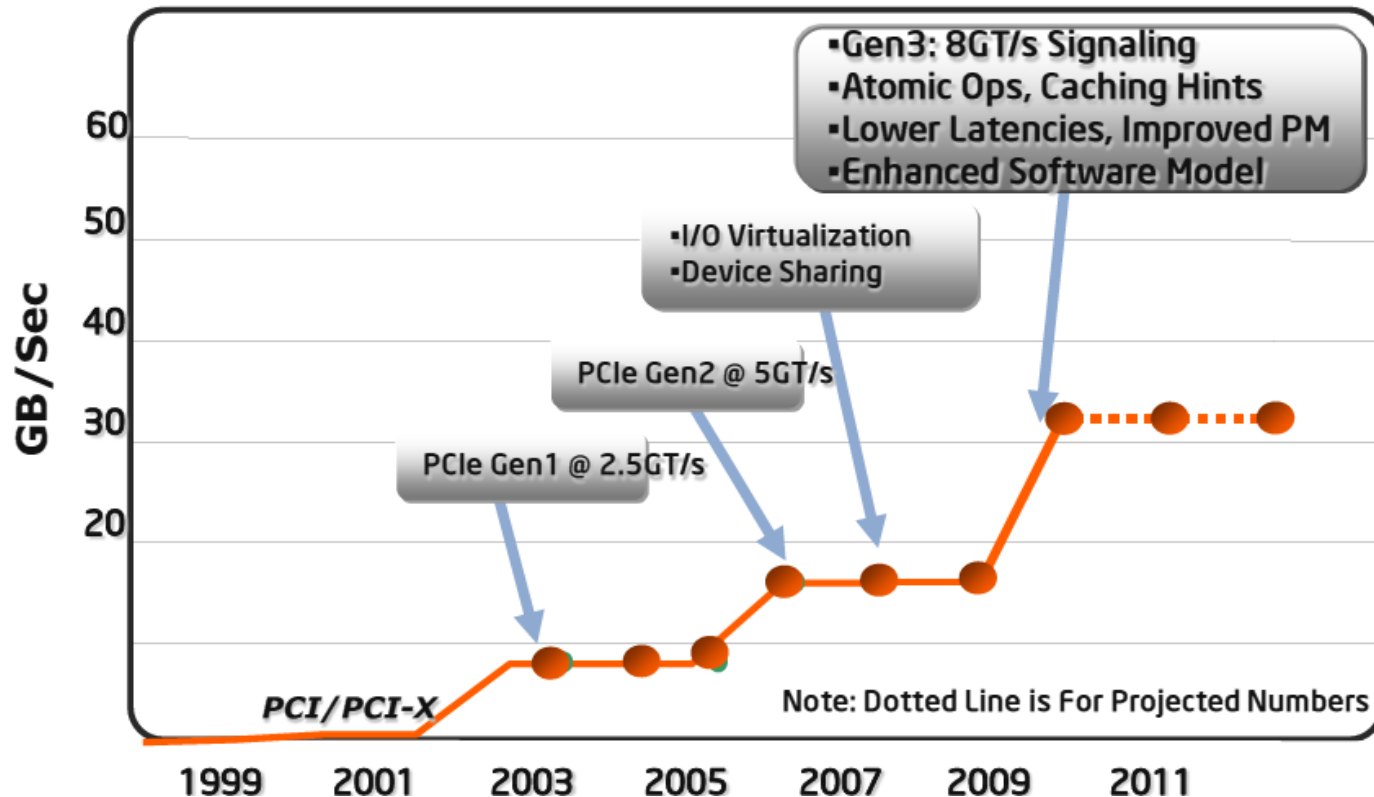


Tick-Tock Development Model: *Sustained Microprocessor Leadership*



PCI-GEN3

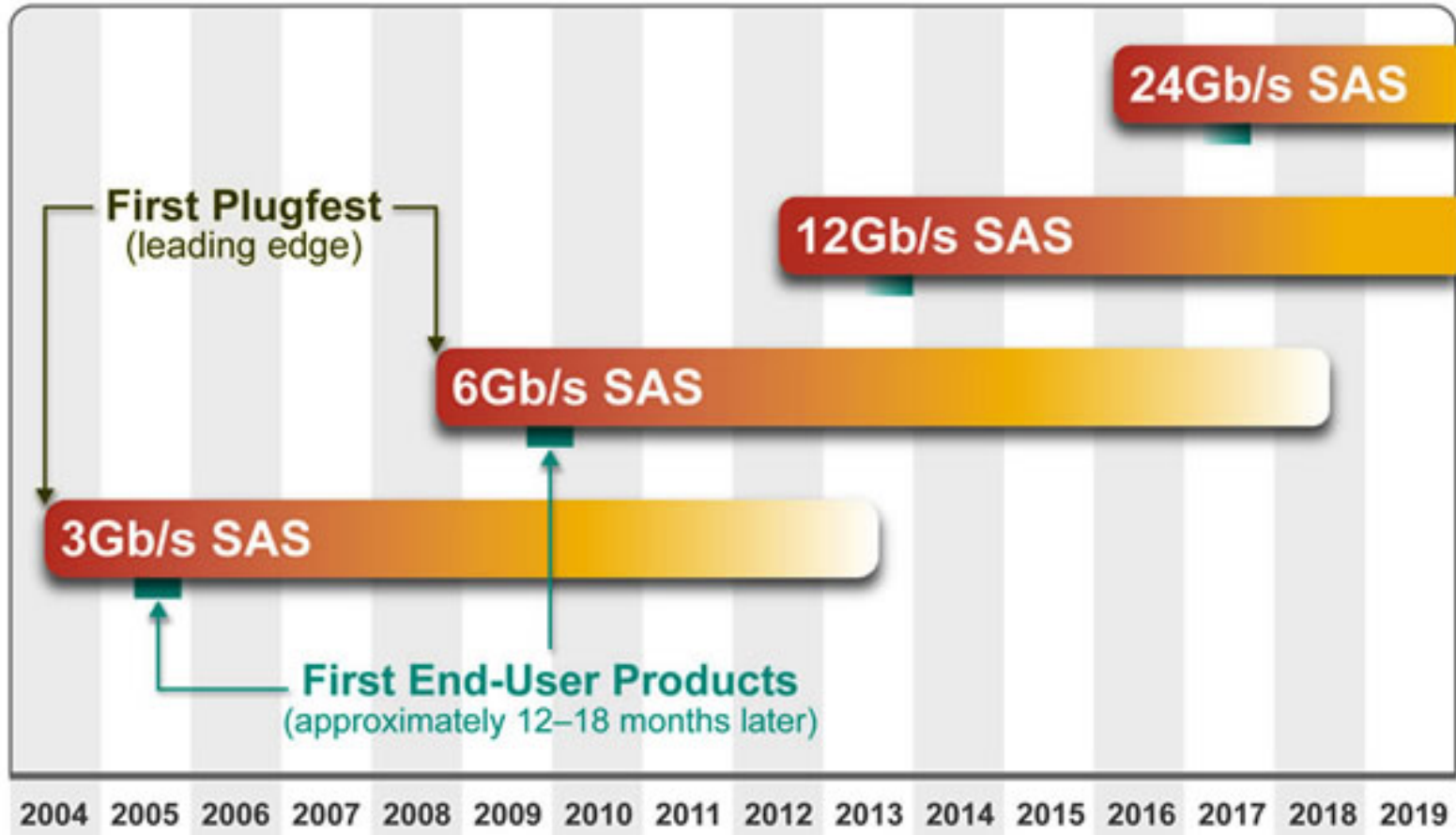
- Next Generation high-speed serial I/O
 - 2x available bandwidth (relative to PCIe Gen 2)
 - Faster signaling speeds (5 GT/s → 8 GT/s)
 - Lower-overhead encoding (128/130 bit)



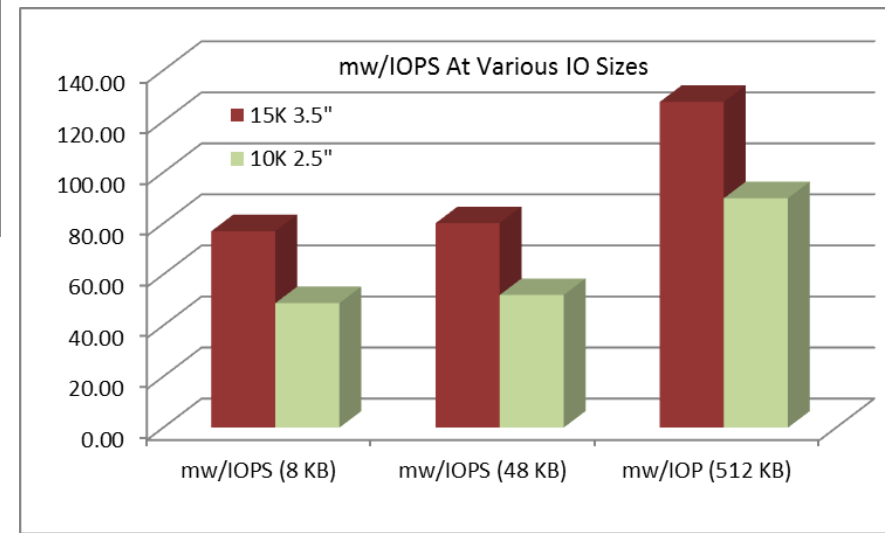
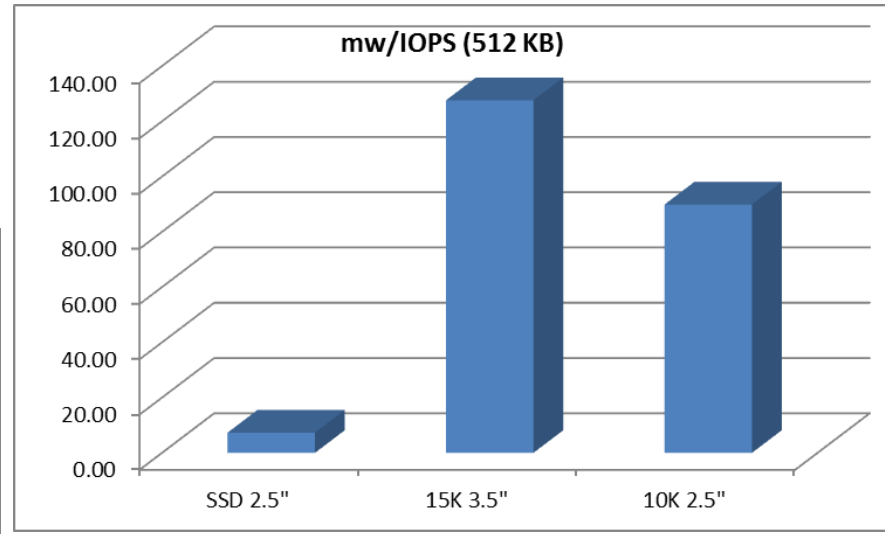
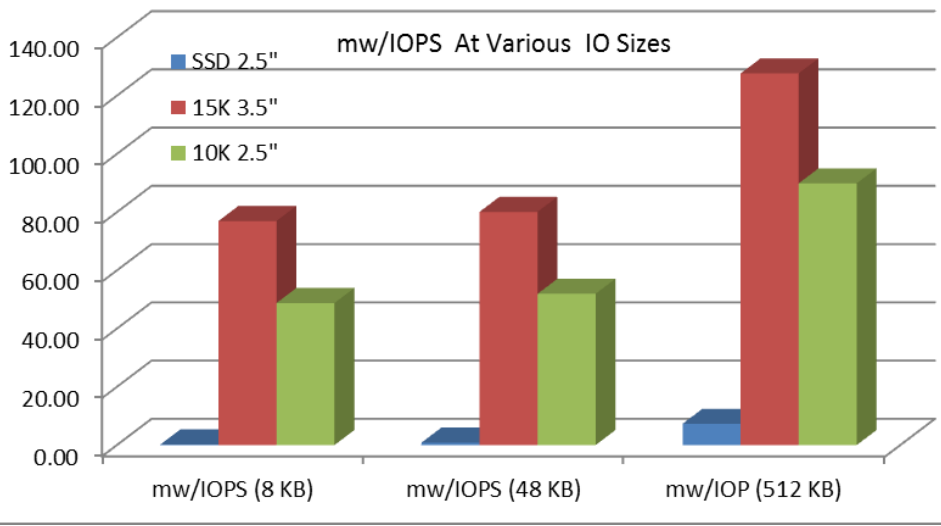
Storage Interconnect Roadmap

- Serial Attached SCSI

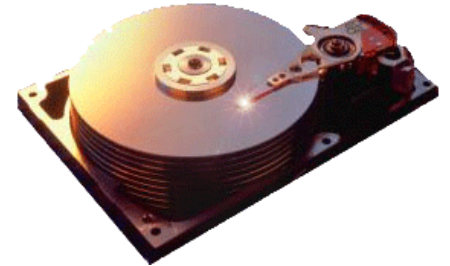
SAS Roadmap



Milliwatt/IOPS



One 2.5" SSD Provides I/O of Up to 27 HDDs



	Enterprise SSD	Ratio	Enterprise 10K HDD
Random 80/20 BW (MB/s)	>390	27X	14
I/O per Sec (4 KB)	Ten of Thousands	150X	Hundreds
Sequential Read BW (MB/s)	>390	2.6X	>150
Random I/O latency (Sec)	10^{-6}	>1000	10^{-3}
Active Power	8W	120%	8W
Typical Capacity	400 GB	NA	600 GB