



DESIGNING EFFICIENT STORAGE SYSTEMS

Phil Brace, President, Cloud Systems and Silicon Group
August 10th, 2016

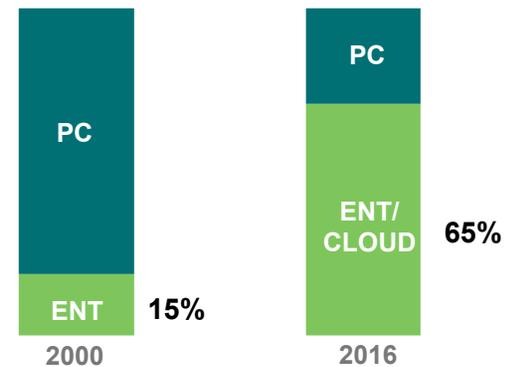
Flash Memory Summit 2016

CONTINUING SWING OF THE STORAGE PENDULUM

SHIFT FROM PC TO CLOUD COMPUTING

Enterprise storage
is most of the shift

Users and Vendors
to adapt



STORAGE USERS

THE CONSOLIDATION WAVE



More workloads running on
fully utilized systems



Performance
Still a critical consideration



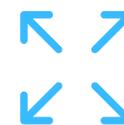


STORAGE USERS

INCREASING IMPORTANCE OF SCALABILITY



Quick, seamless responsiveness



Lower SSD costs enable scaling

SOFTWARE-DEFINED STORAGE EXPANDS



Queues from **the cloud**



SDS Vendors



Open Source

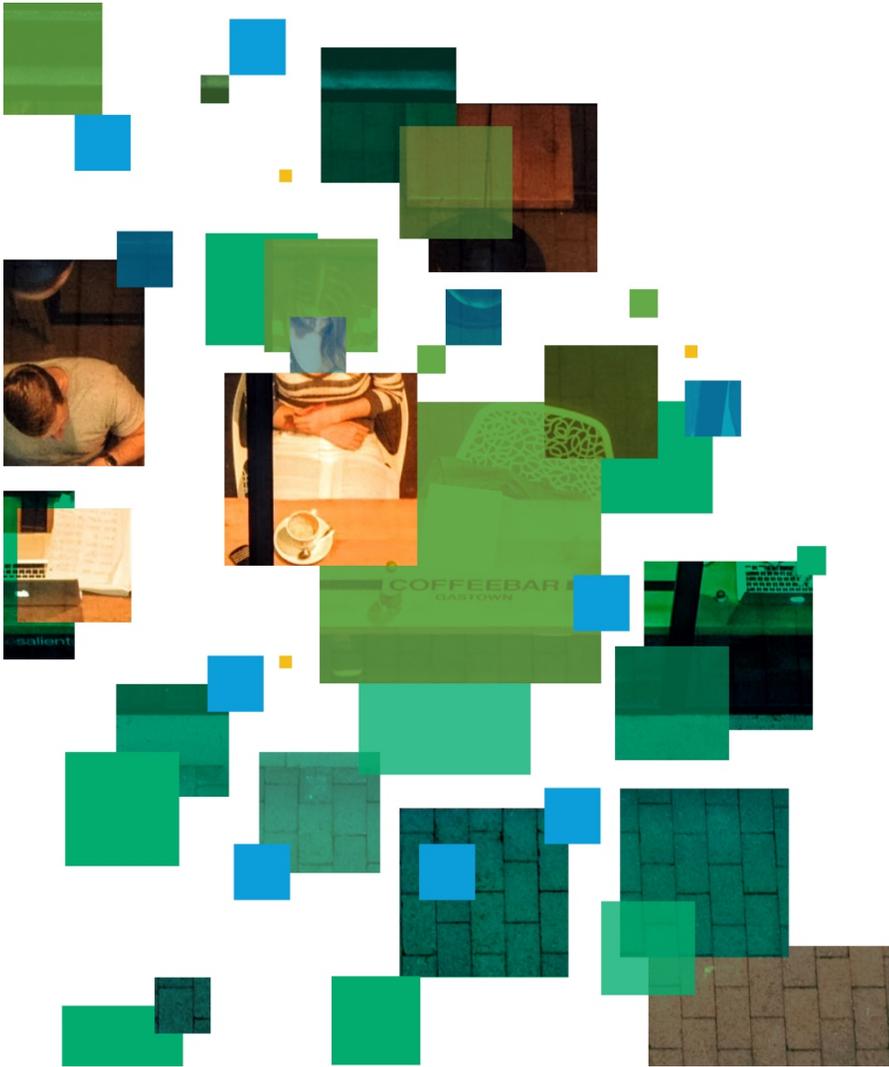


DATA LOCALITY

Utilization of “Slack” Resources

Effective use of
Assets

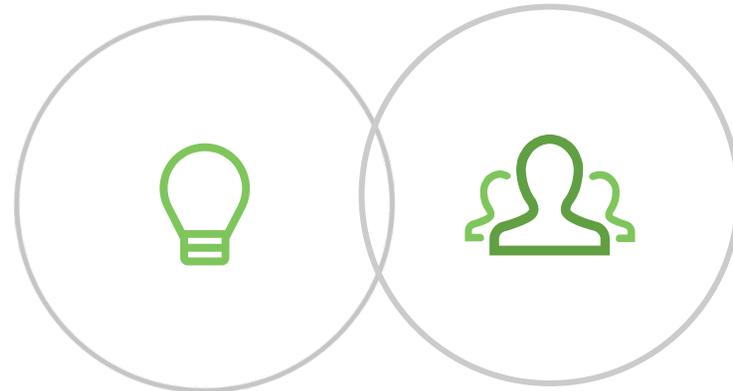




STORAGE VENDORS

REINVENT OR PERISH

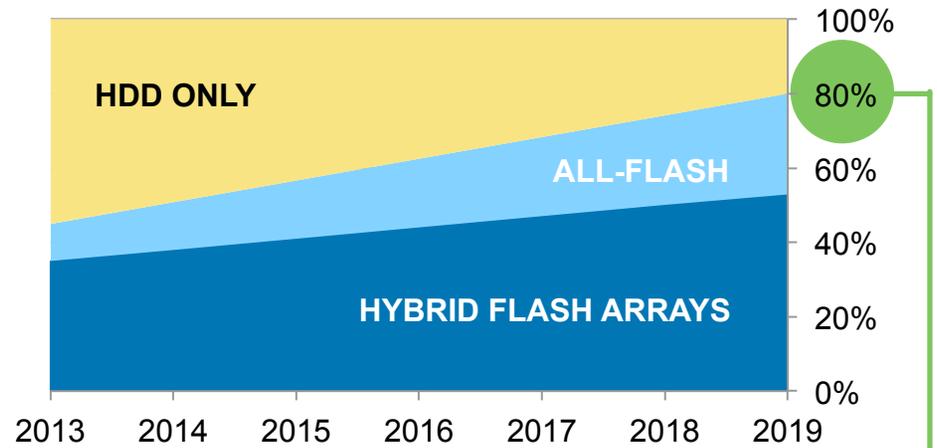
Big players must:
INNOVATE & DIFFERENTIATE





SSD TRENDS DRIVING STORAGE COMPANIES

SSD PROGRESS: SYSTEMS



80% by 2019

CHANGING INTERFACE MIX IN STORAGE SYSTEMS

SAS
will remain strong



NVMe
entering the market





NVMe AND SATA IN THE CLOUD



Upward trend for NVMe + AIC



SATA sustains longer life

LATEST NEWS

Seagate Announces 3 Flash Firsts



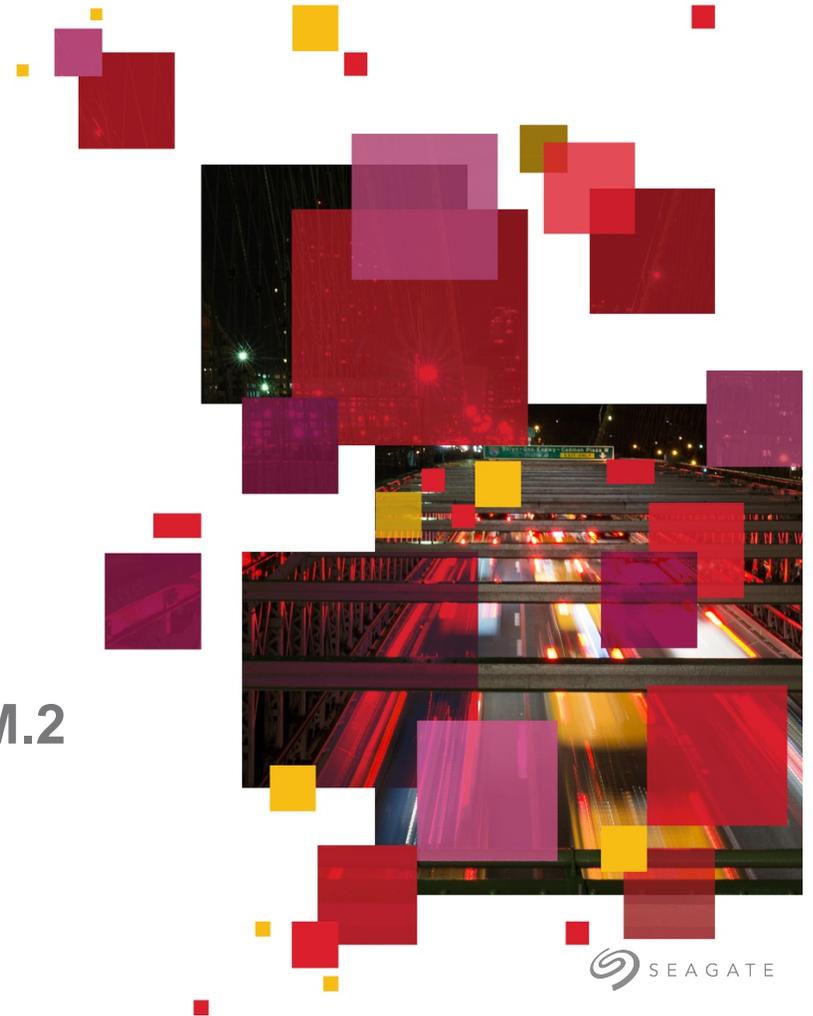
Fastest SSD 10GB/s



Largest SSD 60TB



Densest SSD 2TB Enterprise M.2



The future of storage is bright!

Fastest
Come see the Largest SSDs in the world
Densest





THANK YOU