Where to Now?
Considerations for Storage in the New Data Center

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Evaluator Group
1. Acceleration of the Business

- Faster Time to Market
- Business Performance
- Analysis of Data
Solid State, the Change Agent

- Everything changes, rethink the business
- In 3-5 years Tier-1 Primary Storage will be All Solid State → more than a single system

Your Role
- Strategic Architectural Plan
- Vendor Partnership
B R E A D T H

C A P B I L I T I E S Y O U E X P E C T

- Scale Up / Out
- Advanced Data Protection
- Data Reduction
- Non-disruptive Migration
Price per TB driven down by
- Systems Impact
- Technology Advances
- Market Efficiencies

- 3D “Stacked” NAND Flash
- Data Reduction
- PCIe with NVMe
- Phase Change Memory
- Non-Volatile Resistive RAM

2017
2. Data Analytics, who is responsible?

- Top of CEO’s Agenda
- #2 Priority on most CIO’s agenda’s
- Where is the value?
eBay has predictive analytics experiments running all the time, with every customer involved in at least one.

American Express mines structured and unstructured behavioral data to predict responsiveness to a set of offers that are quickly executed.
Current Issues with Hadoop

- Availability: Ranging from Single Point of Failure to Active / Active
- Storage Inefficiency: 3X storage for each file
- Speed of the process: Data in / out can take longer than queries
- Scale: Inability to scale storage separate from compute
- Limited ways to respond to corporate security and data governance policies

…..Things you have solved before
3. The New Storage Players

- HGST
- SanDisk
- Micron
- Seagate
- Intel
- Samsung
- Foxconn
- OCZ

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3. The New Storage Players

- Webscale
- Public Cloud
- Enterprise
- Private Cloud
+++ OPENSTACK & SDS

- Private Cloud Implementations
- Promise of Independence
- Commodity Pricing

**Your role**

- Understand primary usages
- Understand Total Cost of Ownership
  - Implementation, Management, Support, Longevity
- Weighted cost of Risk
4. Converged & Hyperconverged

“Software defined converged system where all the major components (server, networking, storage) are virtualized in the software running on commodity hardware.”

- Usages
  - SMB
  - ROBO
  - Public Cloud
  - Private Cloud
Hyper-converged

- **Value**
  - Simplicity and role of administrator
  - Possible systems efficiency, scale and management
  - Time to Deploy

- **Key Considerations**
  - Integration with existing environment
  - Application control point
  - Rate of technology change
“Toto, I've a feeling we're not in Kansas anymore.”

- It is not just SAN and NAS
- More options and architectures
- Boundaries of responsibilities keep blurring
- Opportunities to make an impact
More with Less: Hardware and VM Orchestration with More Uptime, Less Futzing; More Performance, Less Hardware

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