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Flash storage: When, Why, and How to Get There

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Abstract: Flash storage: When, Why, and How to Get There

- With dramatically higher throughput and lower latency, flash-based SSDs offer an obvious performance boost over traditional storage solutions. Still, flash storage commands a premium, and many businesses struggle to justify investments in new storage technology when existing solutions are performing adequately.
- Implemented properly, flash storage can not only enhance existing applications, but create entirely new ones. To take advantage of these improvements and build an implementation plan that offers the best return on their investment, businesses must understand the use cases best-suited to flash technology and budget accordingly.
- Understand the value of flash storage and how to build a sensible, staged implementation plan to maximize benefits while reducing risk.

Agenda for today's webinar

- Introductions
- A message from Coho Data
- Storage challenges
- Why Flash?
- When?
- How?
- Q & A

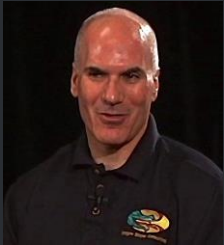


Today's moderator and panelists



Barb Goldworm

President and Chief Analyst, FOCUS LLC



Marc Staimer

President and Chief Dragon Slayer,
Dragon Slayer Consulting



Mike Karp

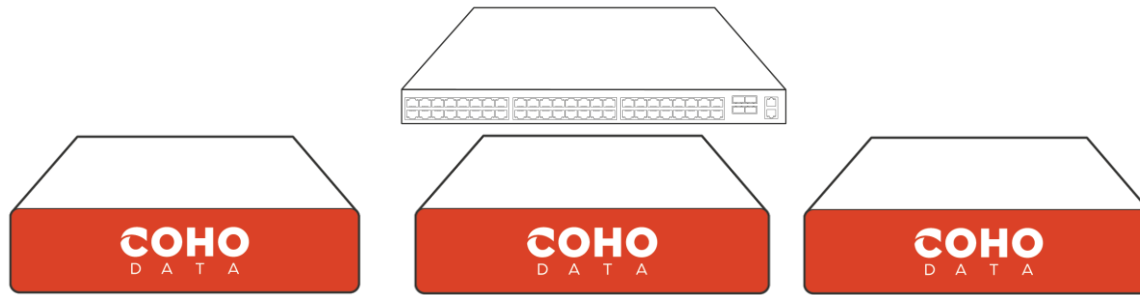
VP & Principal Analyst, Ptak & Associates



Forbes Guthrie

Technical Product Manager, Coho Data

COHO

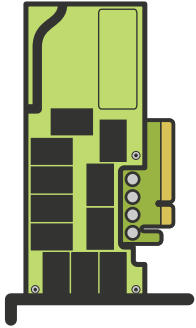


OPEN HARDWARE + SCALE-OUT SOFTWARE + HYBRID FLASH

Forbes Guthrie
Technical Product Manager



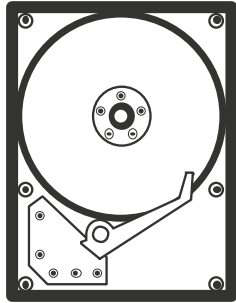
800GB PCIe Flash
50,000 IOPS
0.1 ms latency
\$4K



\$5/GB

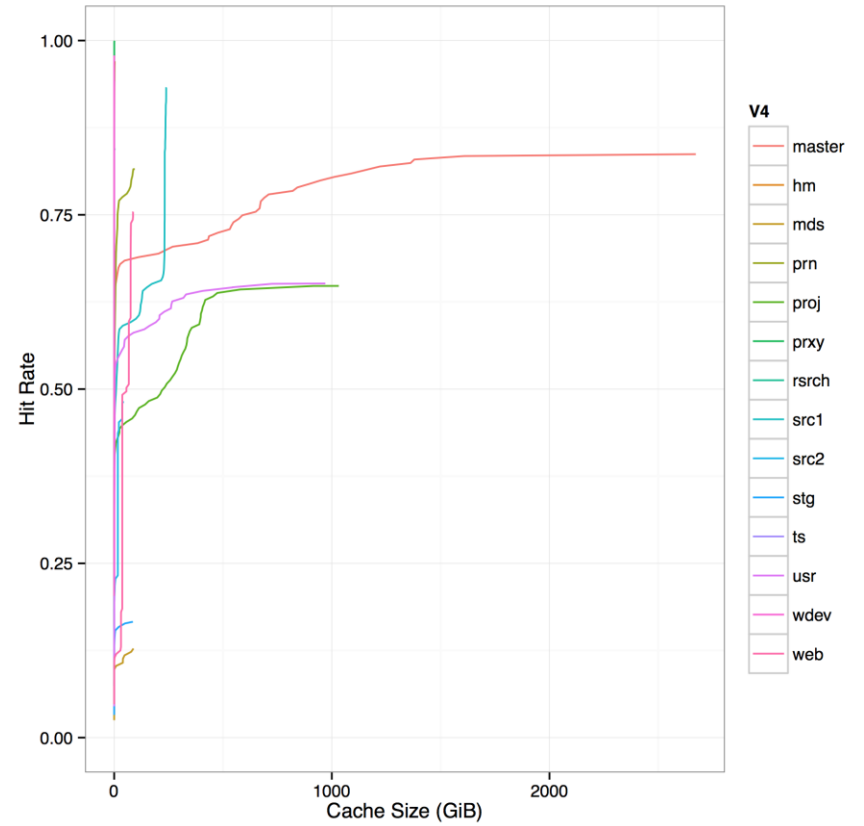
\$0.08/IOP

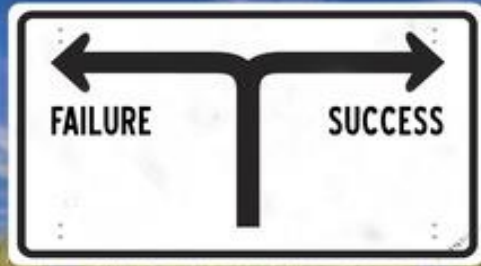
3TB Drive
150 IOPS
10 ms latency
\$250



\$0.08/GB

\$1.67/IOP





Storage Challenges Today

Storage Challenges today

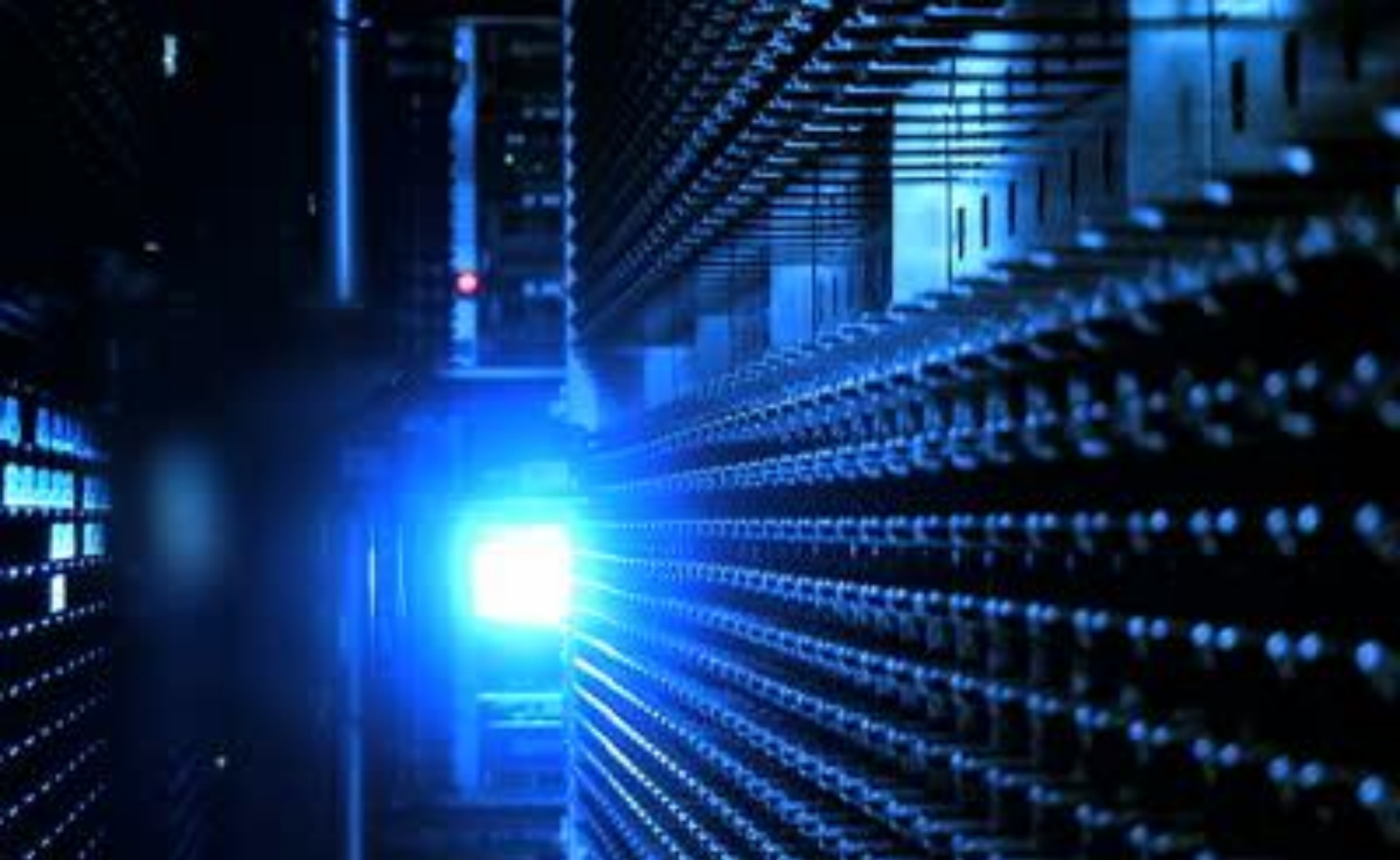
IT is facing major challenges in storage and information delivery today :

- Managing explosive data growth efficiently
- On-demand, real-time management
- Adding spindles isn't enough anymore
- I/O performance to match data needs
- Virtualization issues
- Administrative overhead and skill requirements
- Timeliness of information
- Reliability & Availability
- Space
- Power
- Budget
- Security
- Protection
- Shortcomings of traditional storage



Poll question:

- How much storage do you have in your environment?
 - <10TB
 - < 30TB
 - <100TB
 - <1PB
 - 1PB+



Why Flash?

Why Flash?

- Advantages of Flash-based SSDs
 - Lower latency
 - Higher throughput
- Operational efficiencies of Flash-based SSDs
- Disadvantages of Flash
- Benefits and drawbacks of hybrid approaches
- Can lower latency and higher IOPS enable new applications, products and services?

Poll question:

- Have you deployed any flash yet? If so, how much?
 - None yet but planning to in next 6 months
 - < 5TB
 - 5TB to 20TB
 - > 20 TB
 - Not planning to deploy flash



When ?

When does flash make sense?

- When does it make sense to move to flash?
- Best use cases?
- How can businesses determine what level of performance improvement is worth the cost and potential disruption of upgrades?





How?

How?

What are the most important things to consider when planning to move to flash?

- Matching I/O performance and capacity cost to workload requirements
- Staffing and operational concerns of managing flash-based and hybrid storage
- Avoiding vendor lock-in
- Taking advantage of continually dropping prices
- Planning a staged implementation – maximize benefits and minimize risk



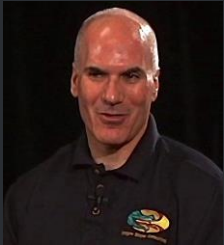
Questions

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Thank you!