Synology 2020

Sales Manager

Chris Alden

Application & Deployment

Synology Solutions Highlights

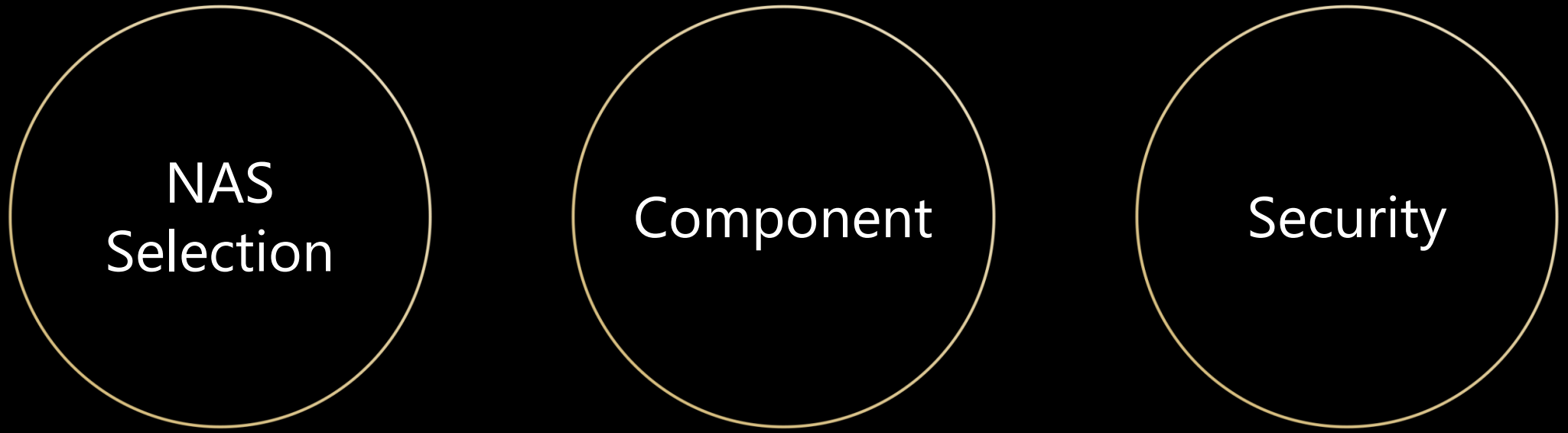
File Server &
Multi-site deployment

Backup business workload

Virtualization storage

Video Surveillance

Deployment Best Practices



NAS Selection

Choose the right NAS for deployments

Synology NAS for Business

FS

XS/XS+

Plus

Enterprise Product Lines

Highly scalable NAS meeting extensive data storage needs

SA3400

- Intel Xeon 8 core 2.1 GHz
- Up to 128GB DDR4 ECC RAM
- Up to 180/96 SATA/SAS disks
- 5 years warranty & SRS

Enterprise SAS

SA3400

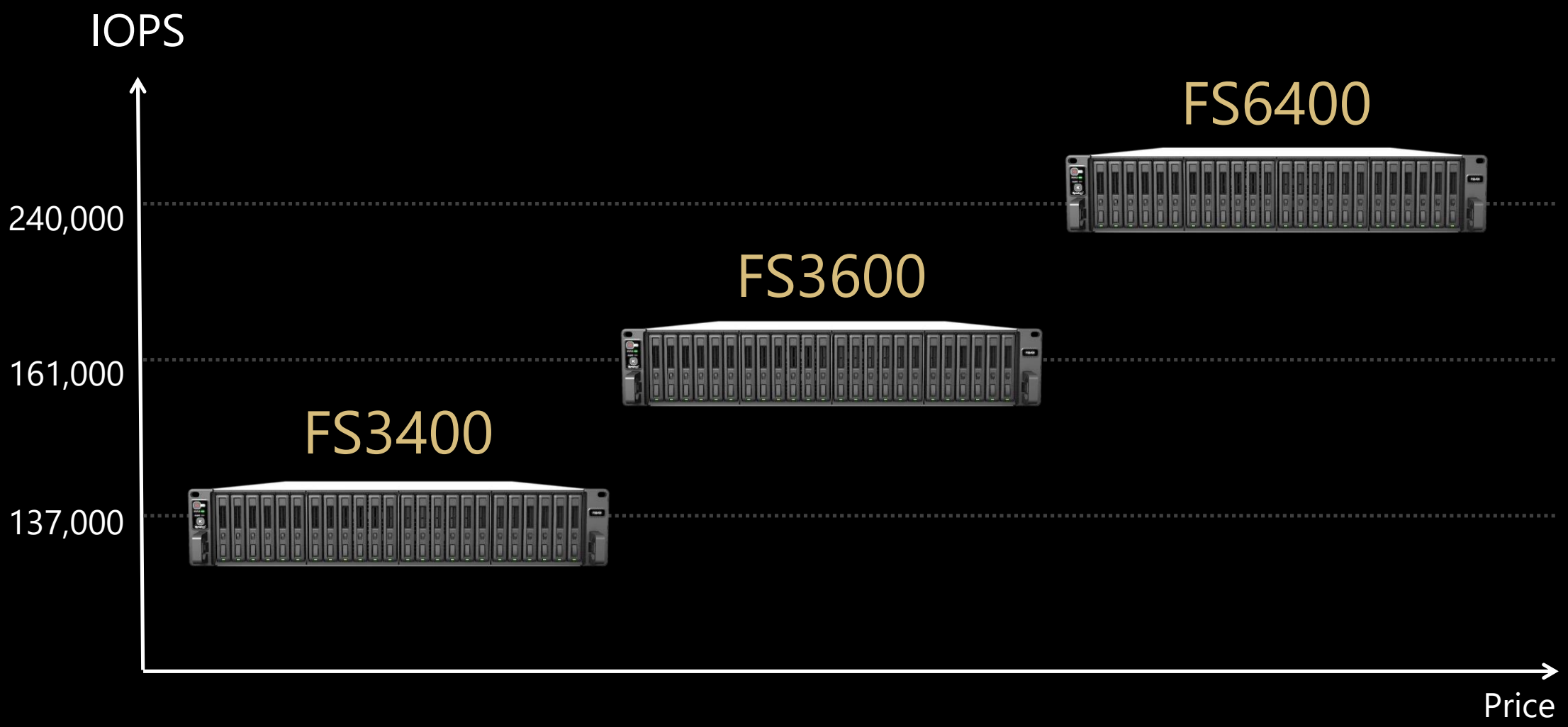
SA3600

Uncompromising performance

FS6400

- Intel Xeon 8 core x 2
- iSCSI 4k random write >240K IOPS
- Up to 512GB RAM
- Up to 72 drive bays

FS series

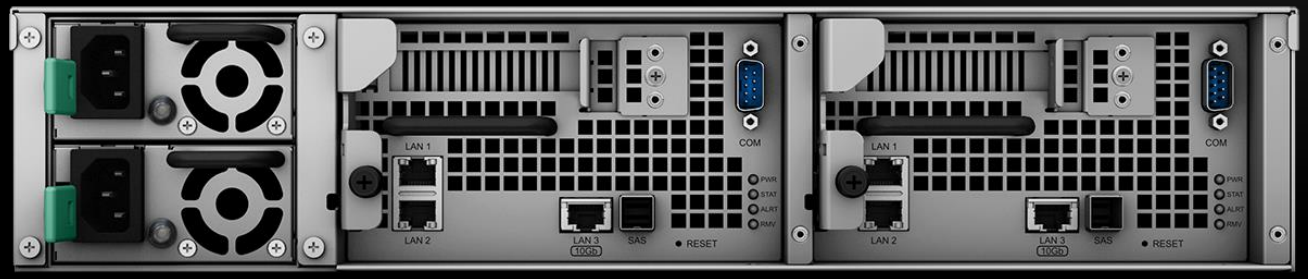


Active-active iSCSI Storage Server

UC3200

- Non-disruptive iSCSI service
- Non-disruptive system upgrade
- Memory data protection
- Fast failover time

Dual Controllers



Active-active iSCSI Storage Server

UC3200

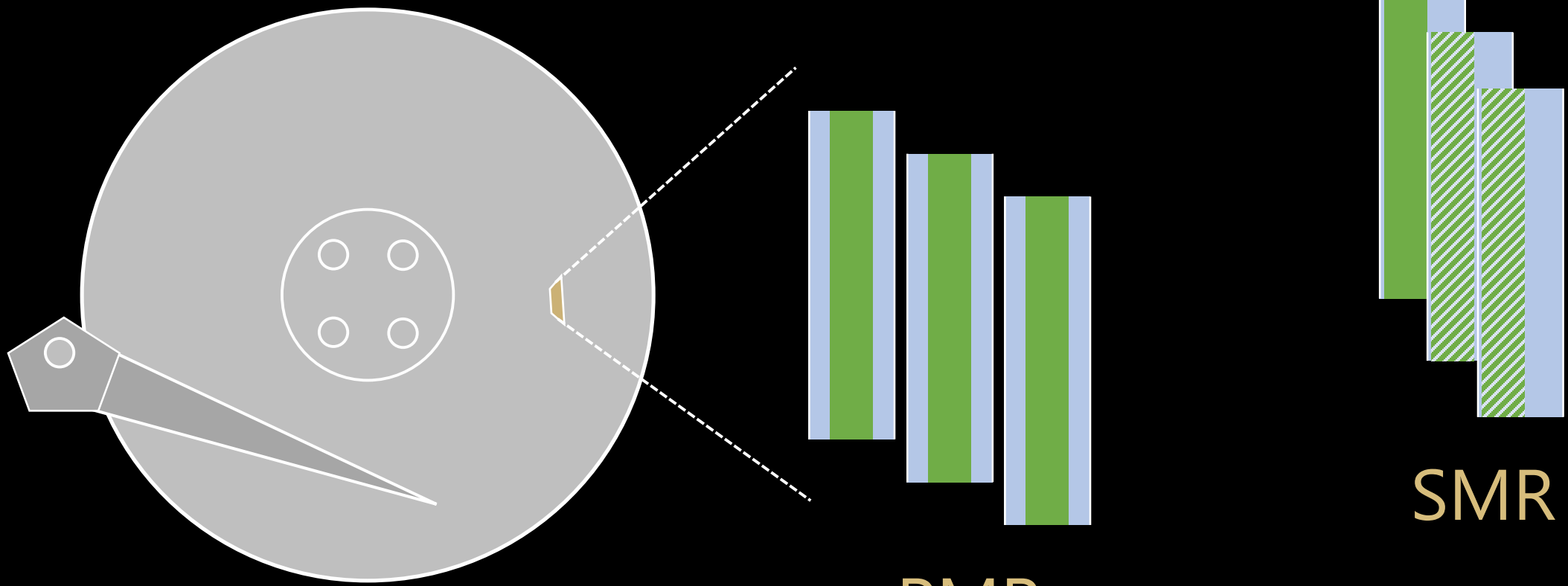
- Dual controller, single UI
- Intel Xeon Quad core CPU
- Up to 72 bays SAS disks
- 141,000 4K random write IOPS

Disk Selection

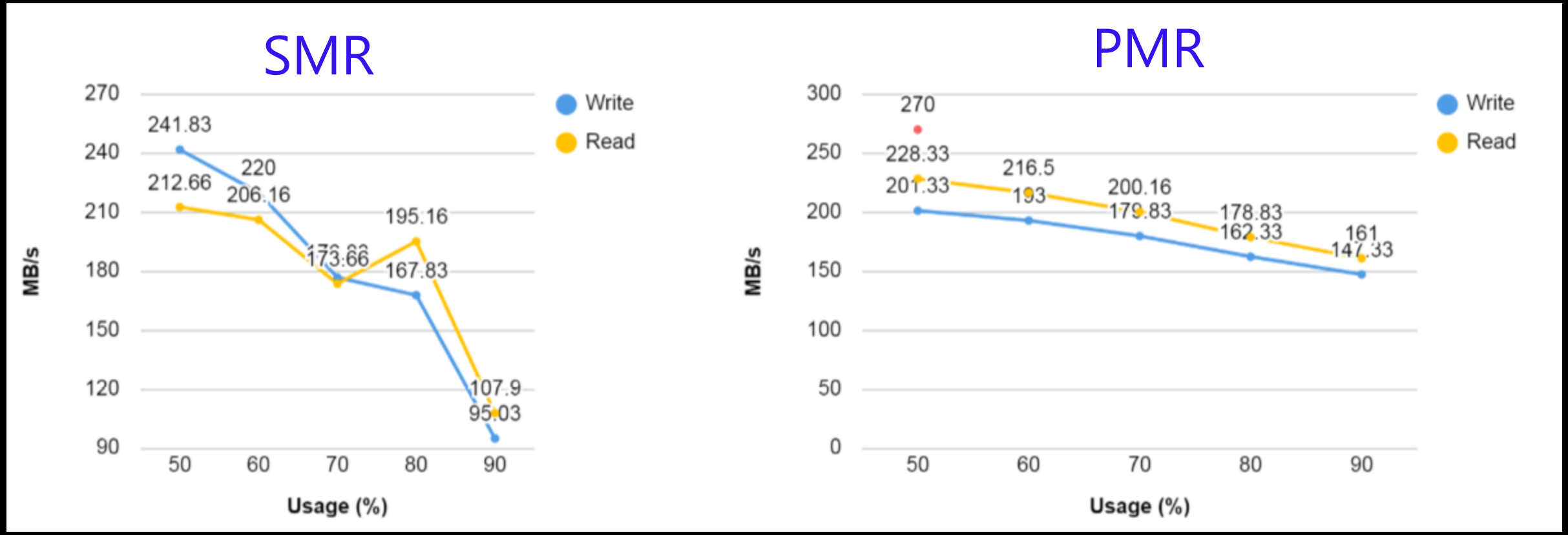
Choose the right disks for your storage server deployment

Disk Technology

SMR & PMR


Width of write head
Width of read head
PMR
SMR

Disk Performance



Ways to Improve Performance

HDD Managed

Built-in bigger cache
Optimize firmware

Host Managed

Host aware operation
SSD Cache

SMR disks in Enterprise Archive Market

SMR in NAS Drives?

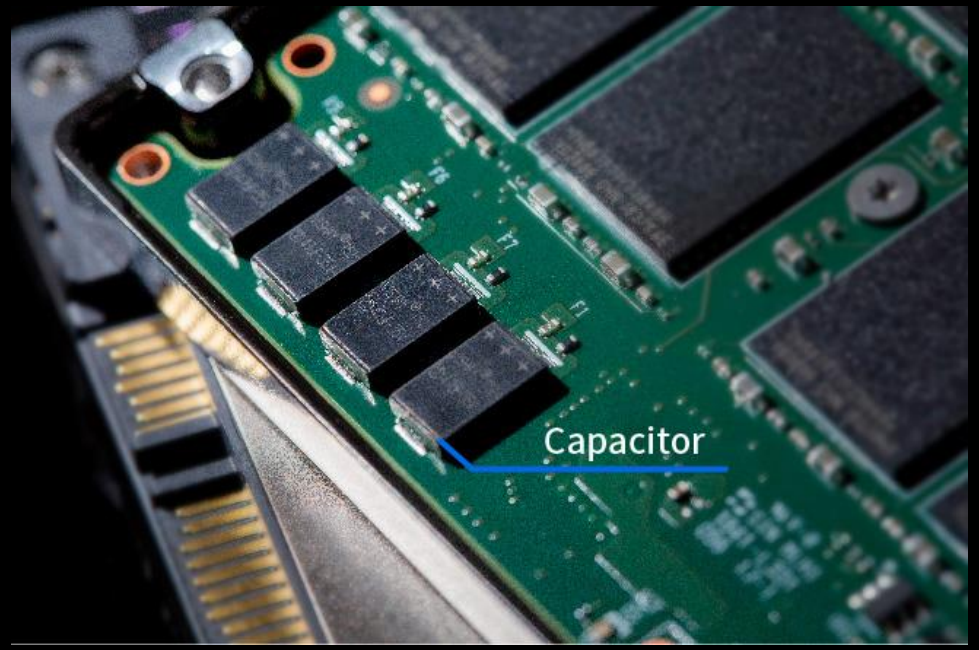
SSD
Consumer or Enterprise?

Spec on Paper

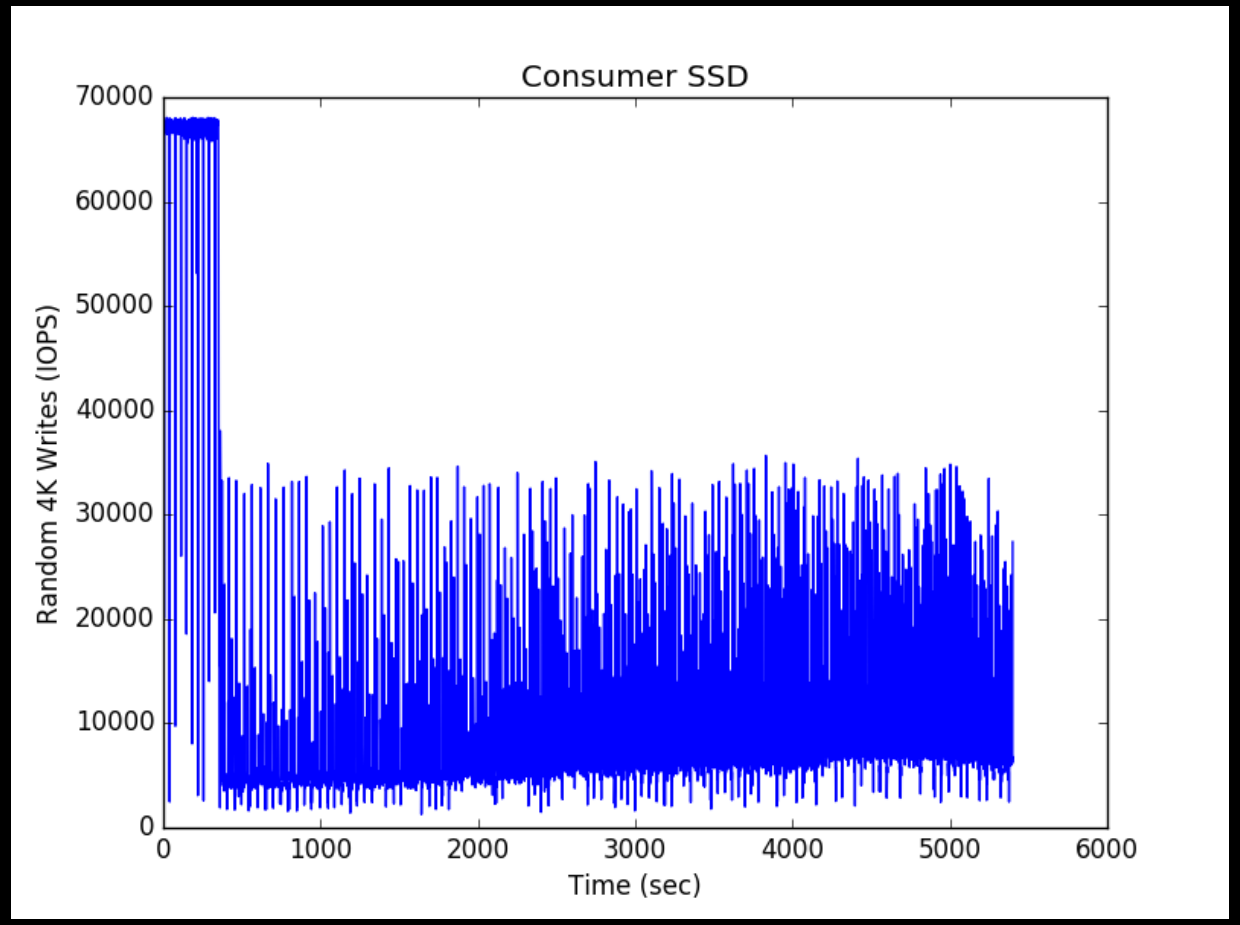
	Consumer SSD Brand C	Enterprise SSD Brand I
Capacity	2TB	1.92 TB
Price	$223.48	$415
Sequential read/write	560/510 MB/s	560/510 MB/s
Random reads/writes IOPS	95K/90K	97K/46.5K

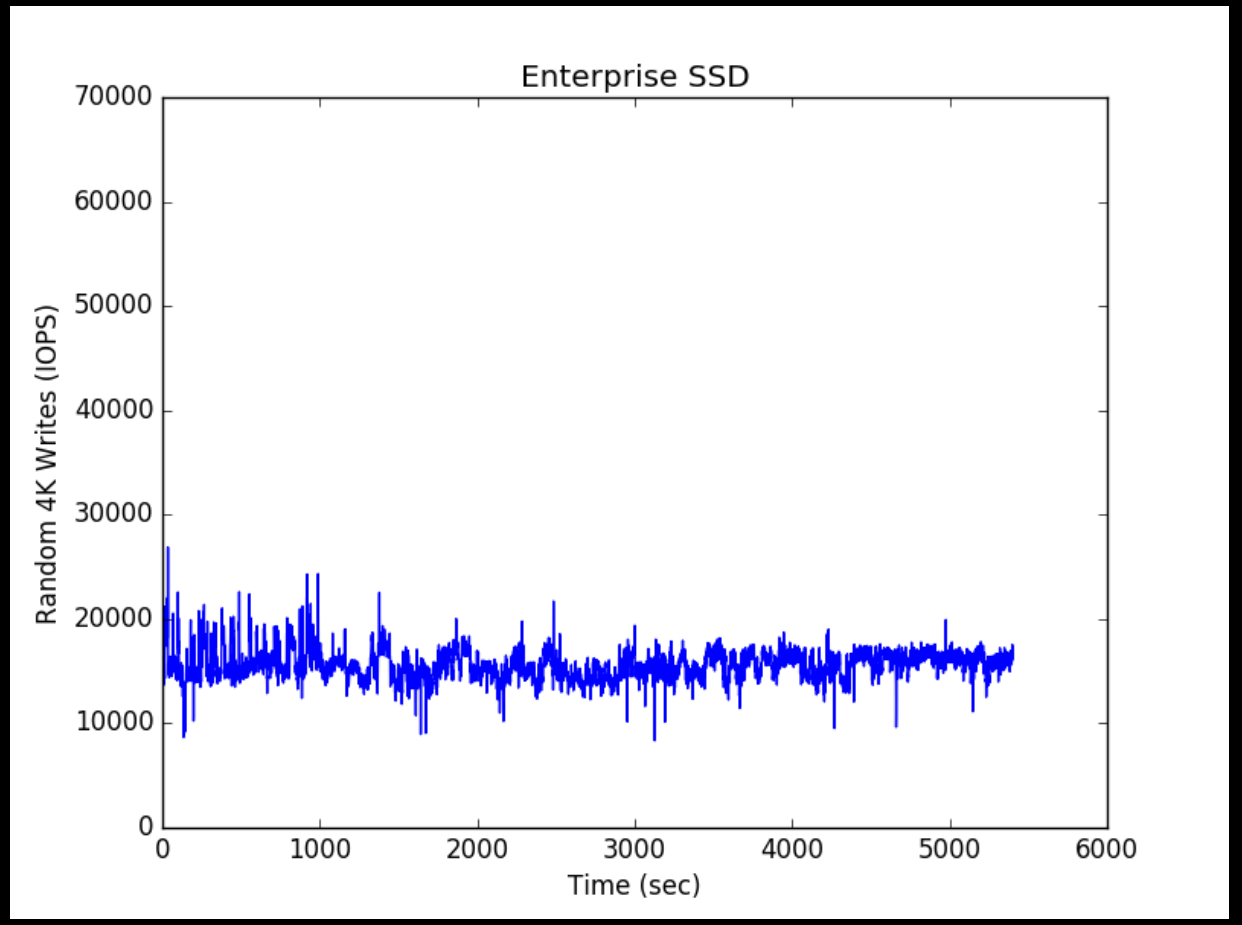
Consumer & Enterprise SSD Difference

- Power lose data protection
- Endurance - lifetime writes
  - Brand C – 700 TB
  - Brand I – 10 PB (15x)
- Over-provisioning (2TB vs. 1.92 TB)
- Consistent performance



IOPS


Consumer SSD
Random 4K Writes (IOPS)
Time (sec)
0
10000
20000
30000
40000
50000
60000
70000
0
1000
2000
3000
4000
5000
6000


Enterprise SSD
Random 4K Writes (IOPS)
Time (sec)
0
10000
20000
30000
40000
50000
60000
70000
0
1000
2000
3000
4000
5000
6000

Choose Right SSD

Enterprise SSD is necessary, especially for SSD cache

SEAGATE

BUILT FOR NAS

Seagate's cutting-edge technology know-how enables a superior NAS experience that helps maximize data potential

EVERY SCENARIO COVERED

IRONWOLF 16TB

Designed for home, SOHO, and SMB NAS

IRONWOLF PRO 16TB

Built for creative pro, SOHO, and SME NAS

IRONWOLF 110 SSD

Performance for SOHO, SMB, and SME NAS

Security

Protect from network attack and ransomware

This new ransomware is targeting network attached storage devices

NAS devices are often used to store critical data and back-ups - but many are exposed to the open internet and the cybercriminals behind eCh0raix are taking advantage.

By Danny Palmer | July 10, 2019 -- 15:03 GMT (08:03 PDT) | Topic: Security

Recommended Content:

White Papers: Dynamic Cyber Defenses: A Fresh Approach To an Old Problem

In cybersecurity, prevention has failed. The bad actors still compromise IT systems and, in not so rare occurrences, succeed in their objectives. Failure, however, is too strong a statement. In reality, prevention is not a total failure; a...

Download Now

RECOMMENDED FOR YOU

On Demand Webcast - Exposed & At Risk

Timeline

Jul. 10	• Ransomware targeted on other NAS devices
Jul. 19	• Synology user reported ransomware attack • Synology analyzed and confirmed it was brute force attack instead of system vulnerability
Jul. 22	• Synology support team tracked down and got into hack's server • Synology sent hacker's attack code to TWCERT
Jul. 26	• TWCERT worked with CFCS-DK in Denmark to take down hacker's server

PSIRT

8 hr
Investigating vulnerabilities

+

15 hr
Vulnerabilities fixed

<

24 hr
Responsive event handing

Security Settings Checklist

Avoid default ports

IP Auto Block

Account and password rules

- Avoid using “admin”
- Password strength
- 2 steps authentication

Let’s Encrypt integration

Security Advisor

Video & Webinar

Partner Program

Grow business with Synology

Partner Benefits

- Technical trainings
- Product information and Support
- Business development
- Sales enablement

Technical Trainings

Product Information & Support

Business Development

Sales Enablement

Registered Pricing

Loaner Program

Joint Call

Joint on-site Visit

Let’s Grow Business Together

Synology®

SYNOLOGY 2020

- Next Generation File Server
- Hybrid Cloud and Beyond
- Application & Deployment
- Partner Program

Synology®

S Y N O L O G Y

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