

STORAGE APPLIANCES FULL FLASH

Techrefresh 2023/2024

David Besson

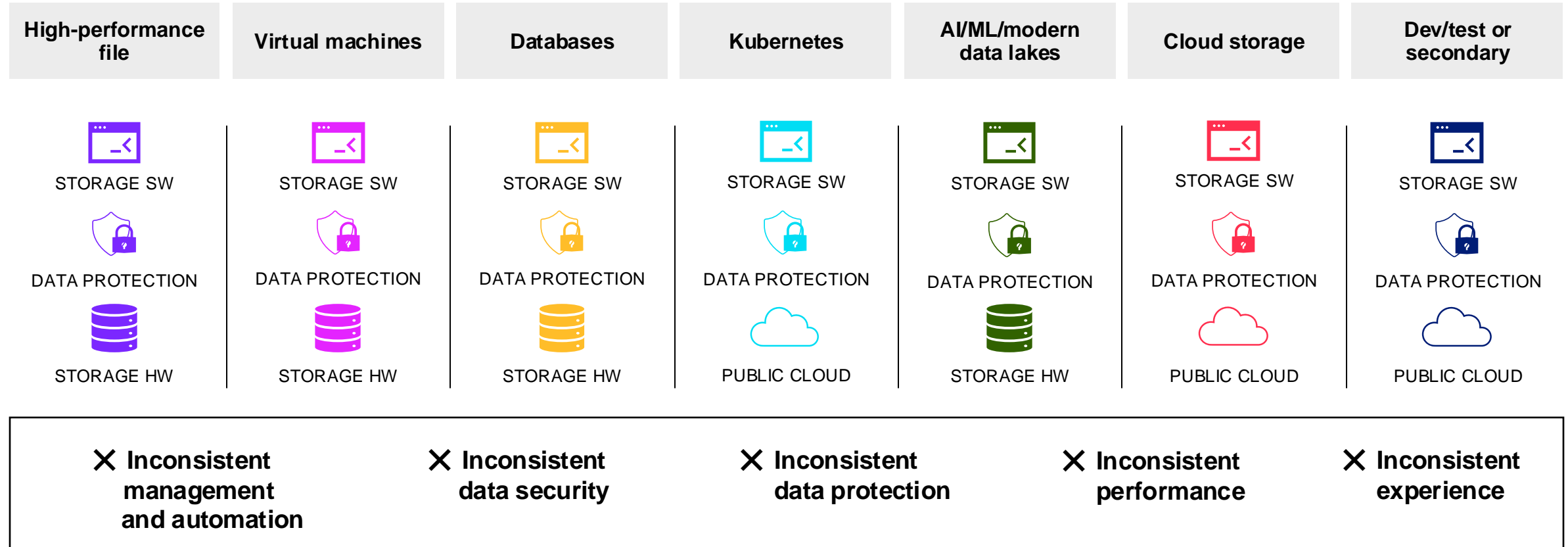
Account Technology Specialist

August 2024



Complexity is the silent killer of IT productivity

Bespoke infrastructure silos across app, data, cloud are inefficient, costly, and introduce risk



Increase productivity and minimize risk with unified simplicity at scale

- High-performance file
- Virtual machines
- Databases
- Kubernetes
- AI/ML/modern data lakes
- Cloud storage
- Dev/test or secondary

ONTAP

ONLY NETAPP

Comprehensive data management software delivering automation, efficiency, data protection, and security capabilities for file, block, and object



✓ **Consistent management and automation**

✓ **Consistent data security**

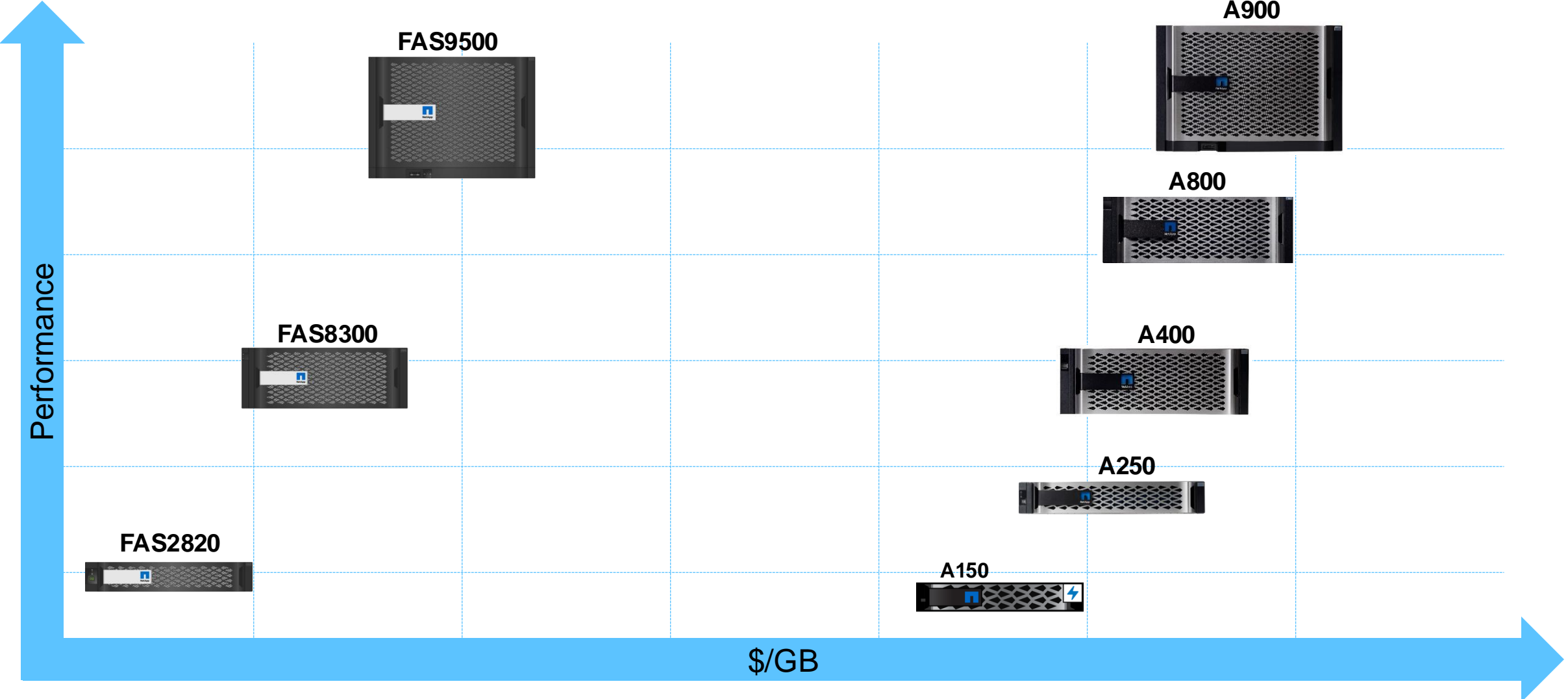
✓ **Consistent data protection**

✓ **Consistent performance**

✓ **Consistent experience**

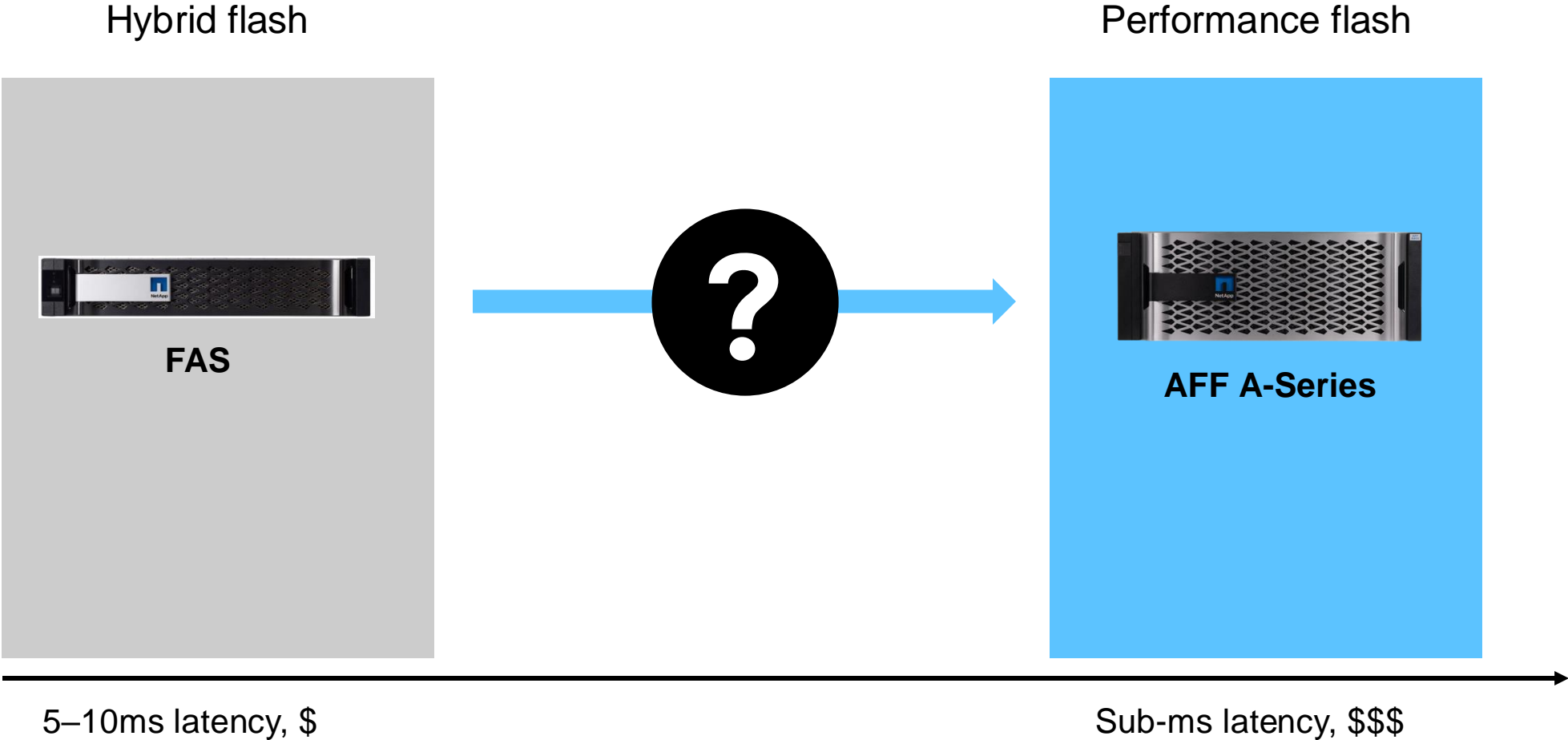
Full flash appliances, beginning 2023

Two series of appliances, one operating system: Ontap



Customers want to transform from hybrid to all flash

But price is often a limiting factor



Opportunity: Accelerate all-flash transformation with capacity flash

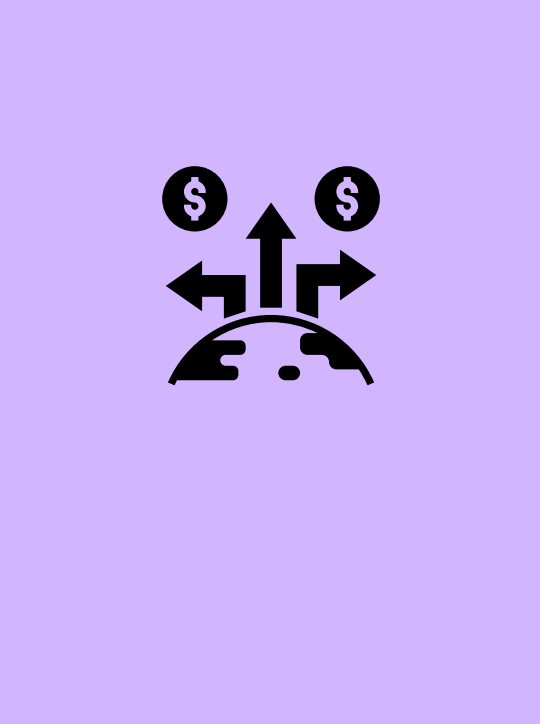
Without compromising on budget and sustainability goals

Hybrid flash



5–10ms latency, \$'s

Capacity flash



2–4ms latency, \$\$'s

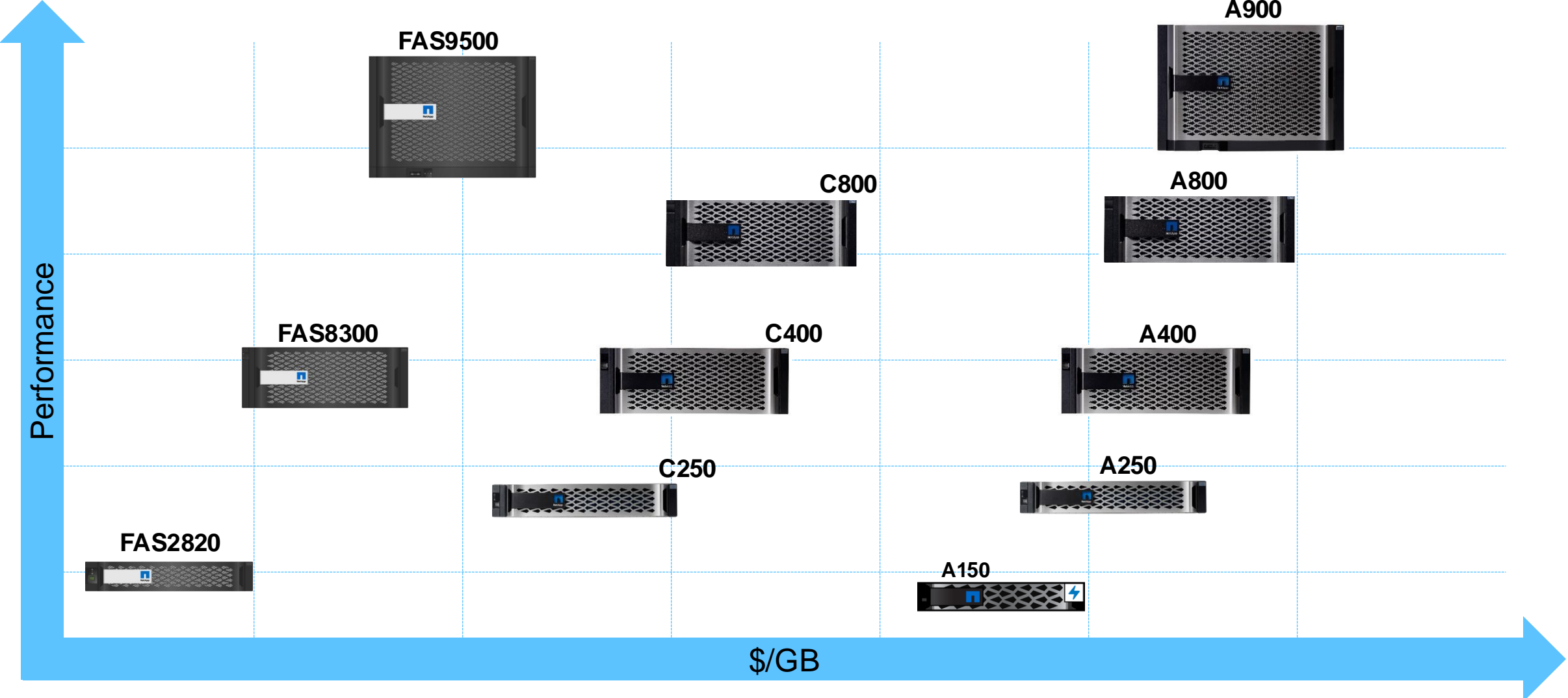
Performance flash



Sub-ms latency, \$\$\$'s

New NetApp AFF platform in 2023

Capacity flash to fill the gap



Meet NetApp AFF C-Series

A new family of capacity flash storage



AFF C250



AFF C400



AFF C800

HA system

- 122TB–1.5PB raw
- Up to 5.9PB effective
- 2U base

Cluster

- 122TBs – 17.6PBs Raw
- Up to 70.8PBs Effective

- 122TB–2.9PB raw
- Up to 11.8PB effective
- 4U base + 2U drive shelf

- 122TB–35.3PB raw
- Up to 141.4PB effective

- 182TB–7.4PB raw
- Up to 29.5PB effective
- 4U base

- 182TB–88.4PB raw
- Up to 353.6PB effective

Effective capacity calculation includes a 5:1 storage efficiency possibility.

AFF C-Series is born feature-rich

ONTAP One bundle provides industry-leading, comprehensive data services

Protocols	Efficiency	Anti-ransomware	Data protection	Tenancy and scale
<ul style="list-style-type: none">NAS / File<ul style="list-style-type: none">NFSSMBSAN / Block<ul style="list-style-type: none">FCiSCSINVMe/FCNVMe/TCPObject (S3)	<ul style="list-style-type: none">Leading raw-to-usableDeduplication, compression, compactionThin provisioningData tiering to hybrid, object, or cloud	<ul style="list-style-type: none">Near-real-time detectionTamper-proof Snapshot recoveryMulti-admin verificationBlocking of known malicious files	<ul style="list-style-type: none">App-integrated backupBusiness continuitySync/async disaster recoveryNetApp® Snapshot™ copiesClones	<ul style="list-style-type: none">MultitenancyQoSClusterwide scaling

NetApp ONTAP®

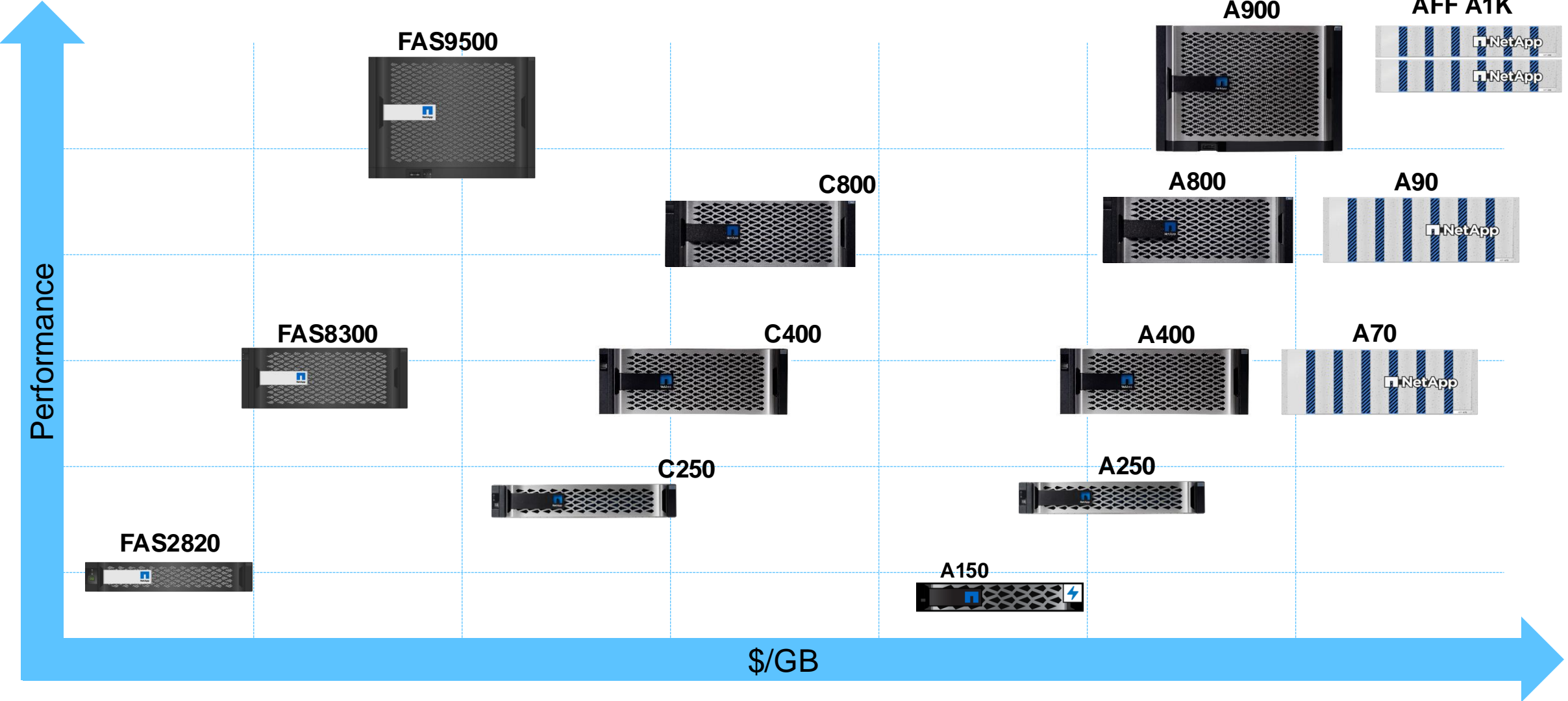
Data management software

Delivering automation, efficiency, data protection, and security capabilities across the NetApp portfolio for file, block, and object



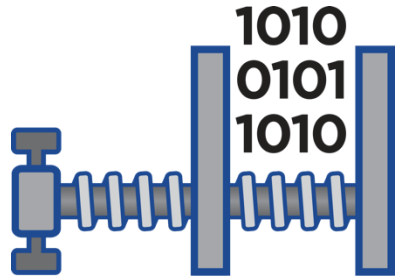
New NetApp AFF and FAS platform in 2024

Refresh of the A-Series appliances



Storage efficiency on next generation AFF A-Series

Performance and Simplicity



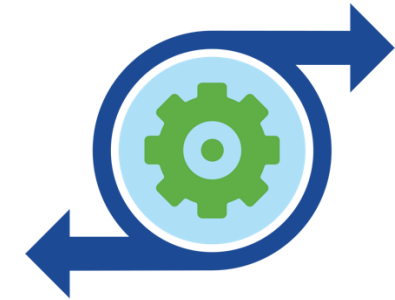
Always on, improved data compression

- No cold data policy to manage
- Nothing for customers to configure
- Confidently meet SEG Guaranteed ratios



No performance impact thanks to QAT offload

- Never choose between performance or efficiency

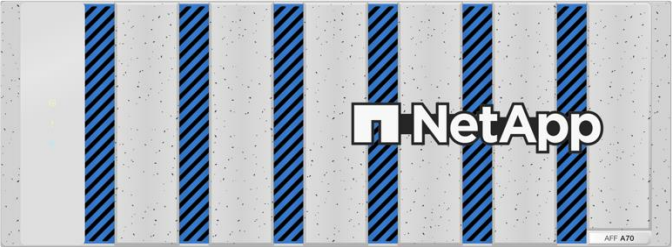


Applied to new and EXISTING data

- Improved storage efficiency applied to existing data automatically
- Automatically applied to data being moved to new AFF A-Series

New mid-range and high-end family of High-Performance flash storage

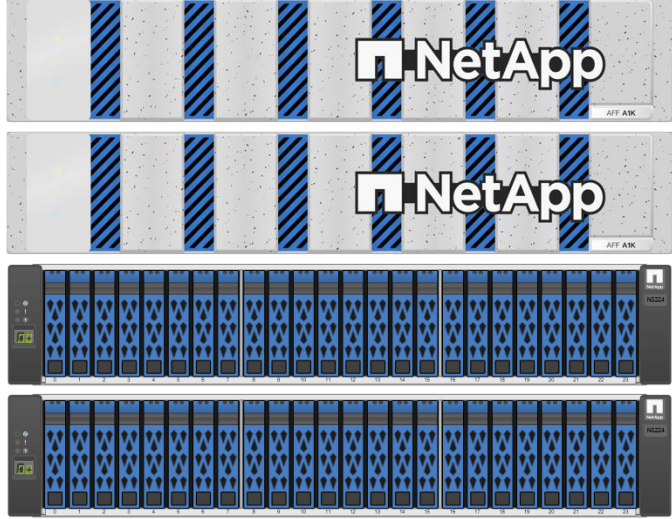
Two TLC flash media supported at launch:
 SED: 3.8TB, 7.6TB, 15.3TB
 NSE: 3.8TB, 15.3TB



AFF A70



AFF A90



AFF A1K

HA system

- 68TB–3.7PB raw
- Up to 13.8PiB effective
- 4U base w/ 48 drives

- 91TB–3.7PB raw
- Up to 13.8PiB effective
- 4U base w/ 48 drives

- 91TB–3.7PB raw
- Up to 13.8PiB effective
- 4U base + 2x 2U drive shelves

Cluster

- 68TBs – 44PBs Raw
- Up to 165PiB Effective

- 91TB–44PB raw
- Up to 165PiB effective

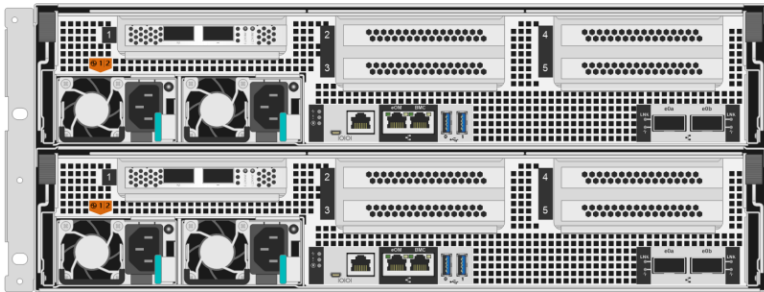
- 91TB–44PB raw
- Up to 165PiB effective

Effective capacity calculation includes a 5:1 storage efficiency possibility.

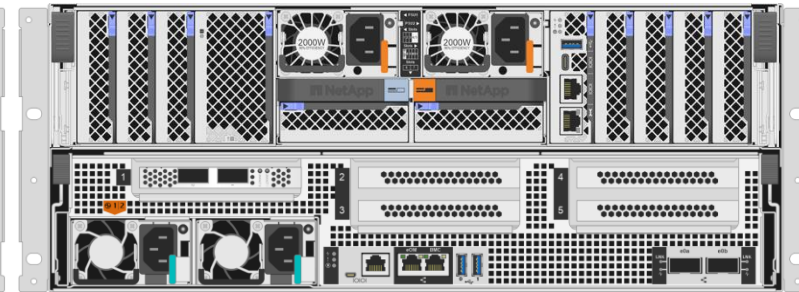
Non-disruptive, in chassis upgrade from A800 to AFF A90

Preserve investment in media while adding significant performance, efficiency, and scalability

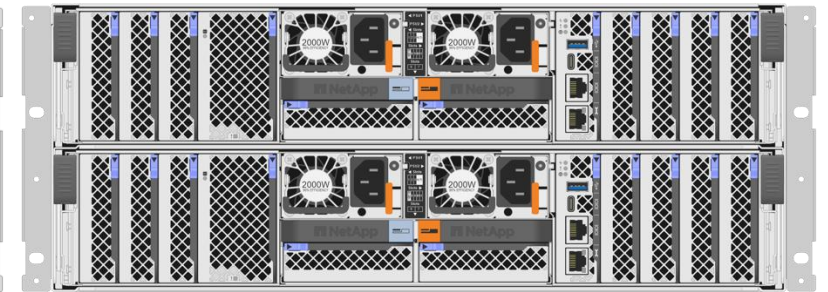
Existing AFF A800



During upgrade



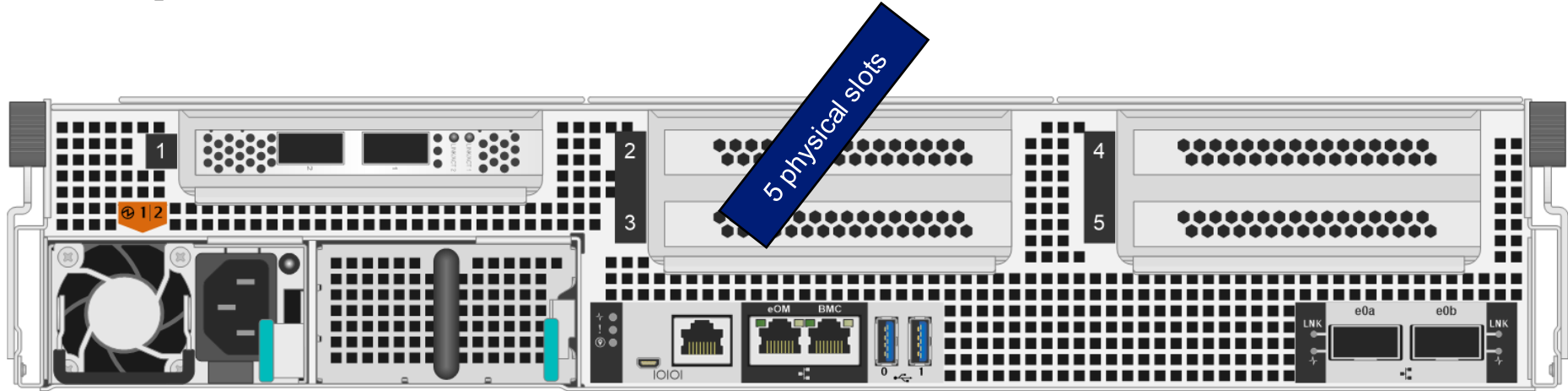
Upgraded AFF A90



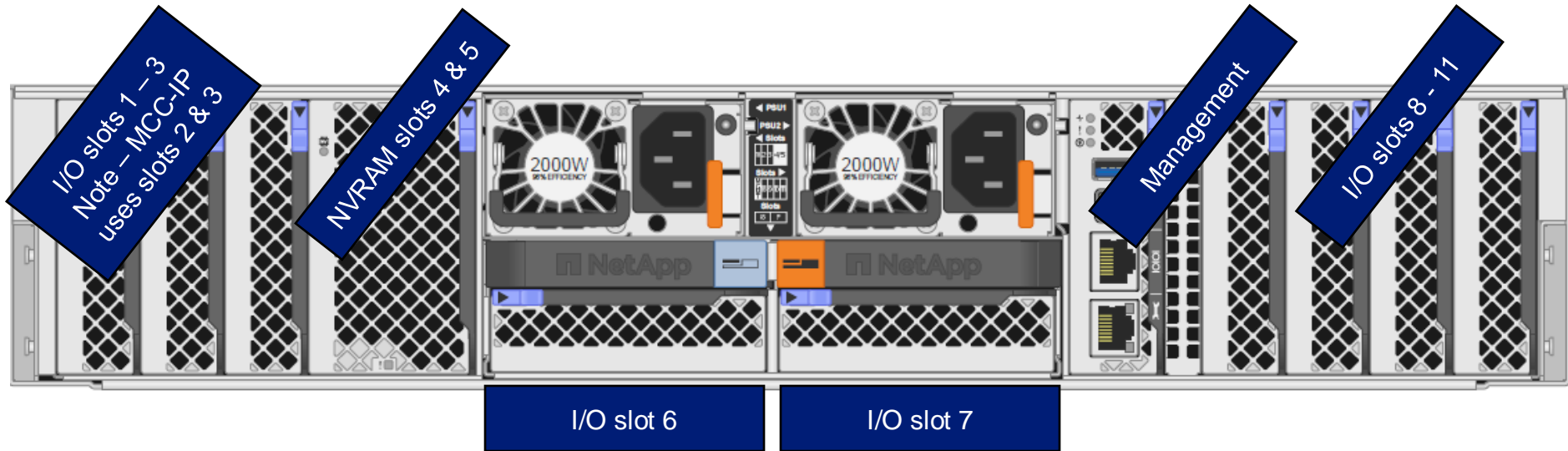
- 100% non-disruptive upgrade, preserving media investment
- All components (PCM, memory, NVRAM, I/O modules, PSUs) are replaced and upgraded
- Post upgrade, system has 1.5X the IOPs, 4X the PCI throughput, 2X the number of PCI slots
- Ready for encryption offload (IPsec & TLS)

A800 slot comparison to new AFF A-Series

A800

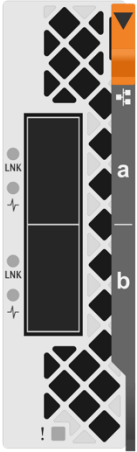


AFF A-Series

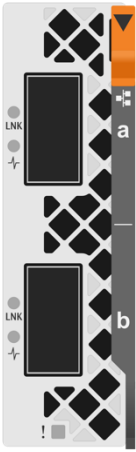


I/O Modules

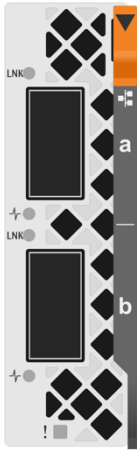
Take a closer look



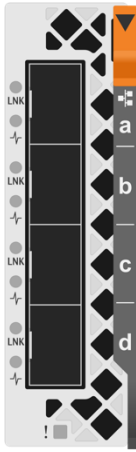
X50130A
(40/100GbE)



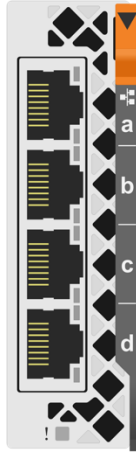
X50131A
(100/200GbE)



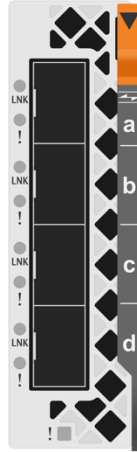
X50132A
(MetroCluster)



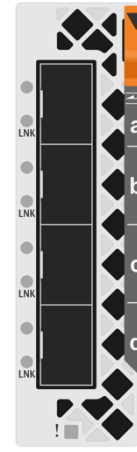
X50133A
(10/25GbE)



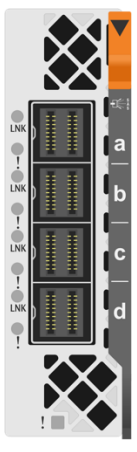
X50134A
(10GBASE-T)



X50140A
(64Gb FC)



X50141A
(64Gb FC)

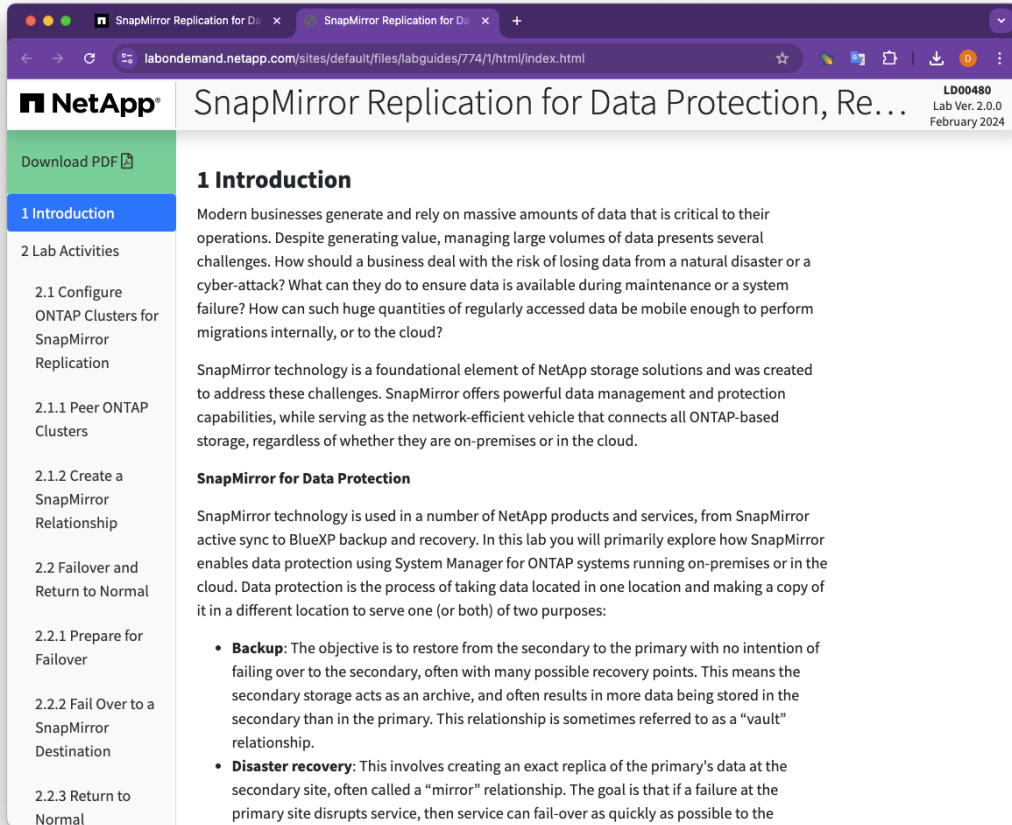


X50150A
(12Gb SAS)

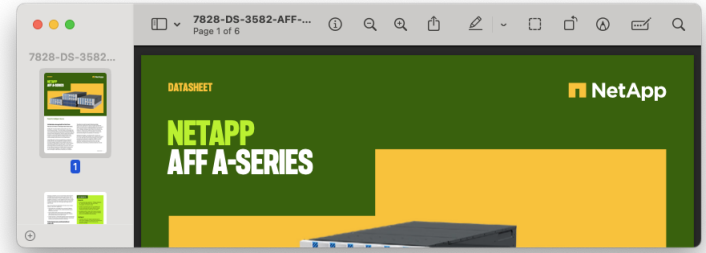
Where to go more information

- Ontap features

<https://labondemand.netapp.com/node/774>

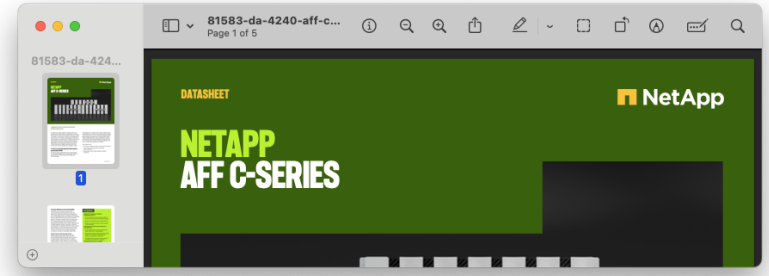


The screenshot shows a web browser displaying a NetApp lab page. The page title is "SnapMirror Replication for Data Protection, Re..." and it includes a "Download PDF" button. The main content area is titled "1 Introduction" and discusses modern businesses' reliance on data and the challenges of data protection. It also mentions "SnapMirror for Data Protection" and lists key features like backup and disaster recovery.



<https://www.netapp.com/media/7828-DS-3582-AFF-A-Series.pdf>

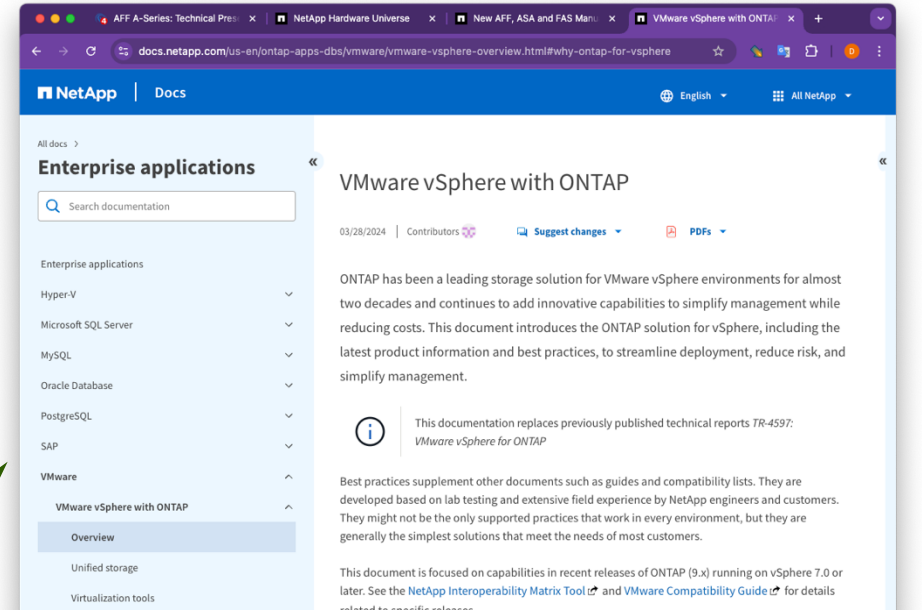
Datasheet with key aspect of our Netapp AFF solutions



<https://www.netapp.com/media/81583-da-4240-aff-c-series.pdf>

Hands-on labs for customers

Application integration & best practices online guides



The screenshot shows a NetApp documentation page titled "VMware vSphere with ONTAP". The page includes a search bar, a table of contents for "Enterprise applications" (listing Hyper-V, Microsoft SQL Server, MySQL, Oracle Database, PostgreSQL, SAP, and VMware), and a main content area with an "Overview" section. The overview text states that ONTAP has been a leading storage solution for VMware vSphere environments for almost two decades and introduces the ONTAP solution for vSphere, including the latest product information and best practices.

<https://docs.netapp.com/us-en/ontap-apps-dbs/vmware/vmware-vsphere-overview.html>

MERCI DE VOTRE ATTENTION !

Sondage de satisfaction
Merci de votre feedback



Scannez-moi

THANK YOU

