

NetApp Enterprise Flash Storage

Your data deserves NetApp. Trends.

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Head of storage team, Netsystems
October 2023



n.
netsystems

 **NetApp**

TRENDS 2023

О ЧЕМ МЫ ГОВОРИТЬ НЕ БУДЕМ:

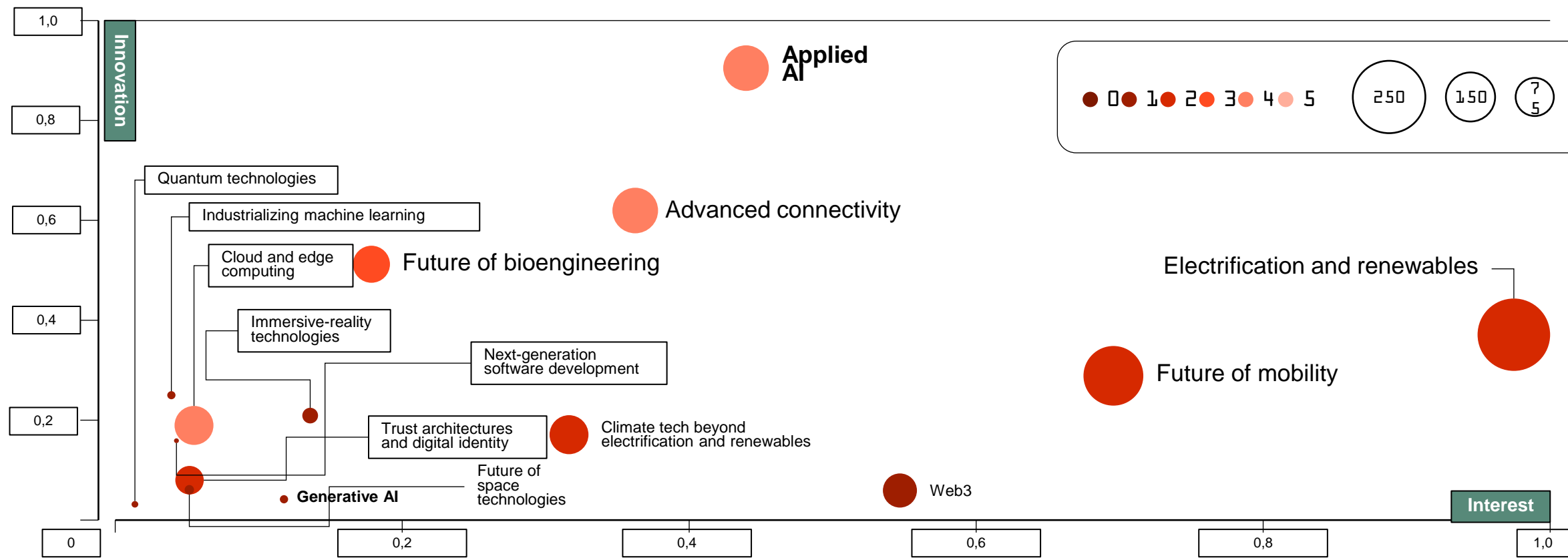
- Эффективность хранения данных
- Снепшоты
- Надежность SSD
- S3
- Предиктивная аналитика
- ... и много о чем ещё 😊

О ЧЕМ ПОГОВОРИМ:

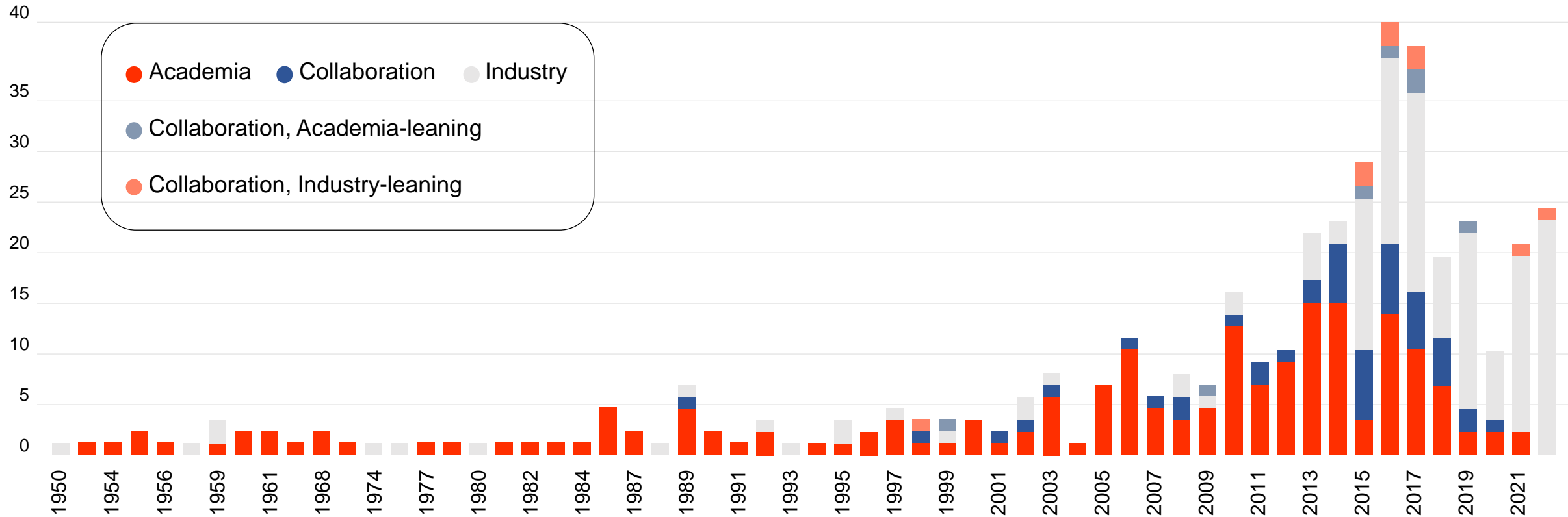
- Современные тренды

ТОЧКА ЗРЕНИЯ MCKINSEY – ИЮЛЬ 2023

THE 15 TECH TRENDS

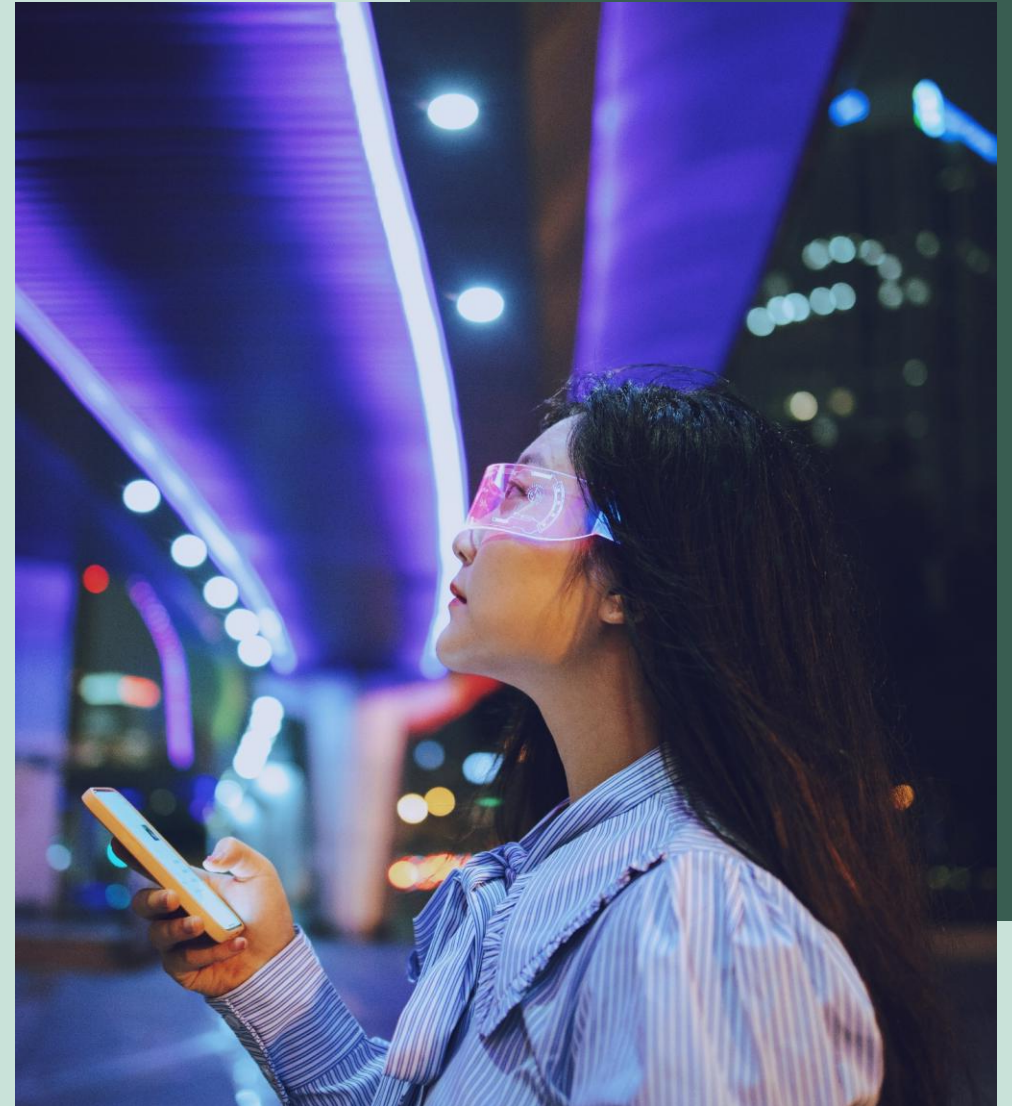


КОММЕРЧЕСКИЕ ИНВЕСТИЦИИ В AI



SIMPLICITY AT ANY SCALE

Data storage that grows with you, consumed any way you want it, for any workload, any app, anywhere.



DATA STORAGE THAT GROWS WITH YOUR BUSINESS

START SMALL



Storage for any budget
with entry-level storage

SCALE UP



Non-disruptively add
massive capacity as needed

DRIVE COSTS DOWN



Adopt capacity flash at scale

PROTECT YOUR DATA



Leverage disk for secondary
data for cost savings

SCALE OUT: One unified cluster with non-disruptive data mobility

No bespoke infrastructure or data silos – just one simple data infrastructure powered by ONTAP

ONTAP

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



FLEXIBLE UNIFIED STORAGE FOR ANY APP, ANY DATA, ANYWHERE

vmware®

ORACLE

Microsoft®
SQL Server®

SAP®

mongoDB

APACHE
Spark™

kafka

Red Hat
OpenShift

NetApp
AFF



Any unstructured
file or object
workload

SMB

NFS

S3



Any block
workload

NVMe/FC

FCP

NVMe/TCP

iSCSI



ONTAP

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



aws

Microsoft
Azure



IBM Cloud

FOCUSED SAN STORAGE FOR YOUR BLOCK WORKLOADS

Dedicated block storage without the silos

Modern. Symmetric Active-Active.
All-NVMe. The power and resiliency of
a legacy frame array in a modern system.

Resilient with a
Six Nines Data Availability Guarantee

Simple. The ASA uses the same ONTAP
as our unified product line. Common APIs,
common management.

vmware®

NVMe/FC

ORACLE

NVMe/TCP

Microsoft®
SQL Server®

FCP

SAP®

iSCSI



NetApp is trusted and proven by over
20,000 customers for their SAN workloads

NetApp
AFF

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aws

Microsoft
Azure

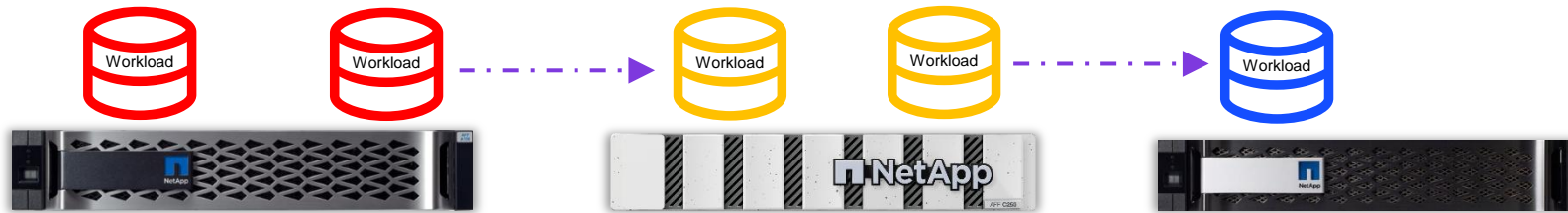


IBM Cloud

MOBILITY: LOWEST COST ACROSS THE ENTIRE LIFECYCLE OF YOUR DATA

Automated services to always keep your data in the best place across your hybrid multicloud environment

Non-disruptive data mobility



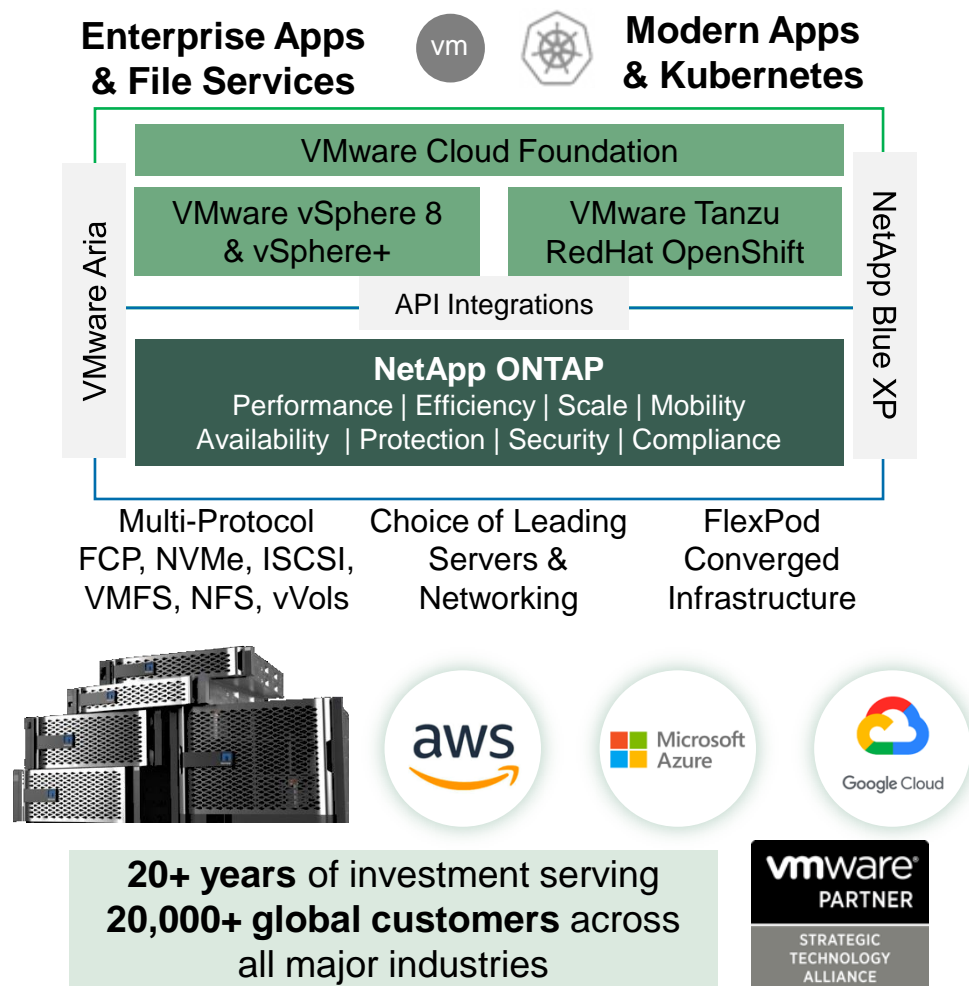
- Host high-performing workloads on performance flash
- Start new workloads on performance flash to assess
- Non-disruptively migrate appropriate workloads to capacity flash to reduce cost
- Archive data sets transparently to disk for cold storage

ONTAP

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

THE FOUNDATION OF YOUR VIRTUAL INFRASTRUCTURE

The most comprehensive solution for **vmware** storage

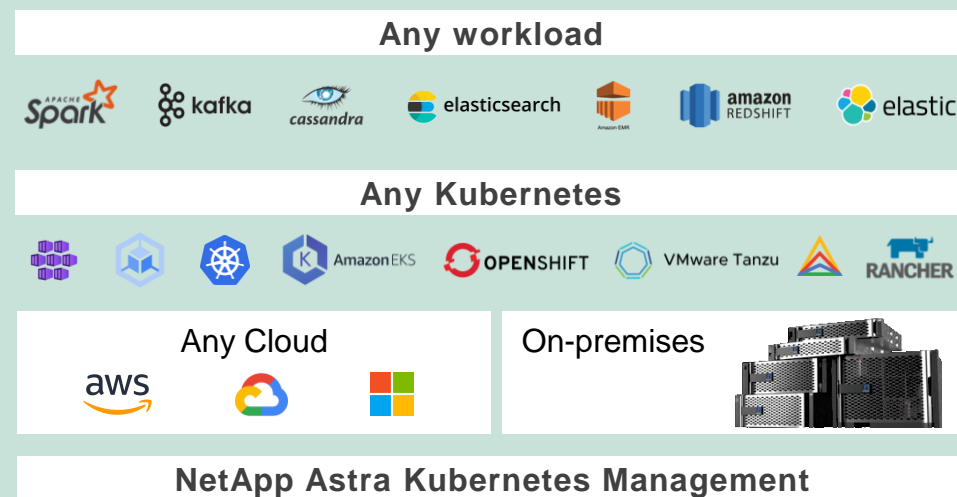


Modern. Leading the vVol and NVMe transition with full support for vVols, VMFS, and NFS and the first to offer enterprise NVMe/TCP and NVMe/FC.

Integrated with full support for discovery, provisioning, monitoring, and data protection of VMware via ONTAP Tools for vSphere and NetApp Astra for K8s.

Flexible. The only external storage supported by VMware on-prem and in every major cloud. Plus support for any distribution of Kubernetes. Choose your own path.

The most comprehensive solution for **kubernetes** storage



AIOPS KEEPS YOUR DATA FLOWING

Leveraging AI to keep your data infrastructure powering your business

98% 

of technical issues
are predicted and
proactively addressed

RESOLVES ISSUES
2X 
FASTER

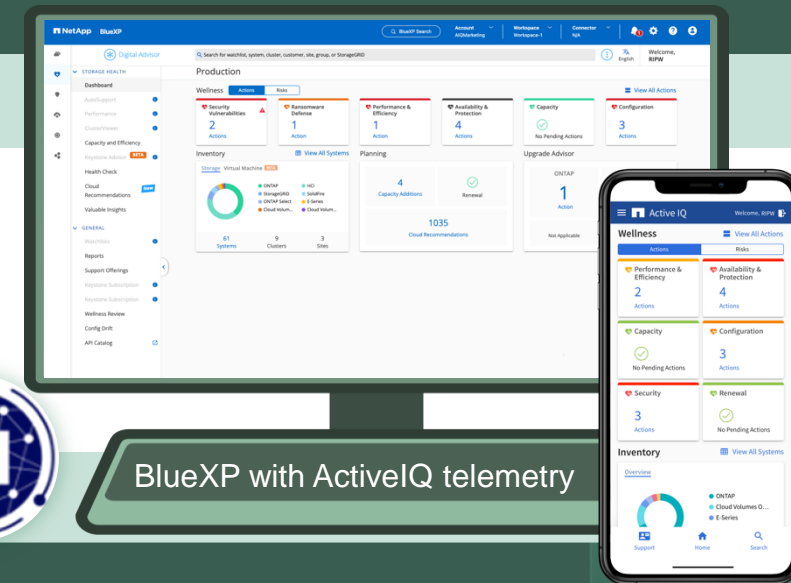
9 of 10 

users save hours of admin
time each week

Over the last year alone,
Active IQ saved customers

2+
million

hours of lost
productivity due to
downtime



BlueXP with ActiveIQ telemetry

STORAGE EFFICIENCY GUARANTEE

The simplest effective guarantee in the industry.

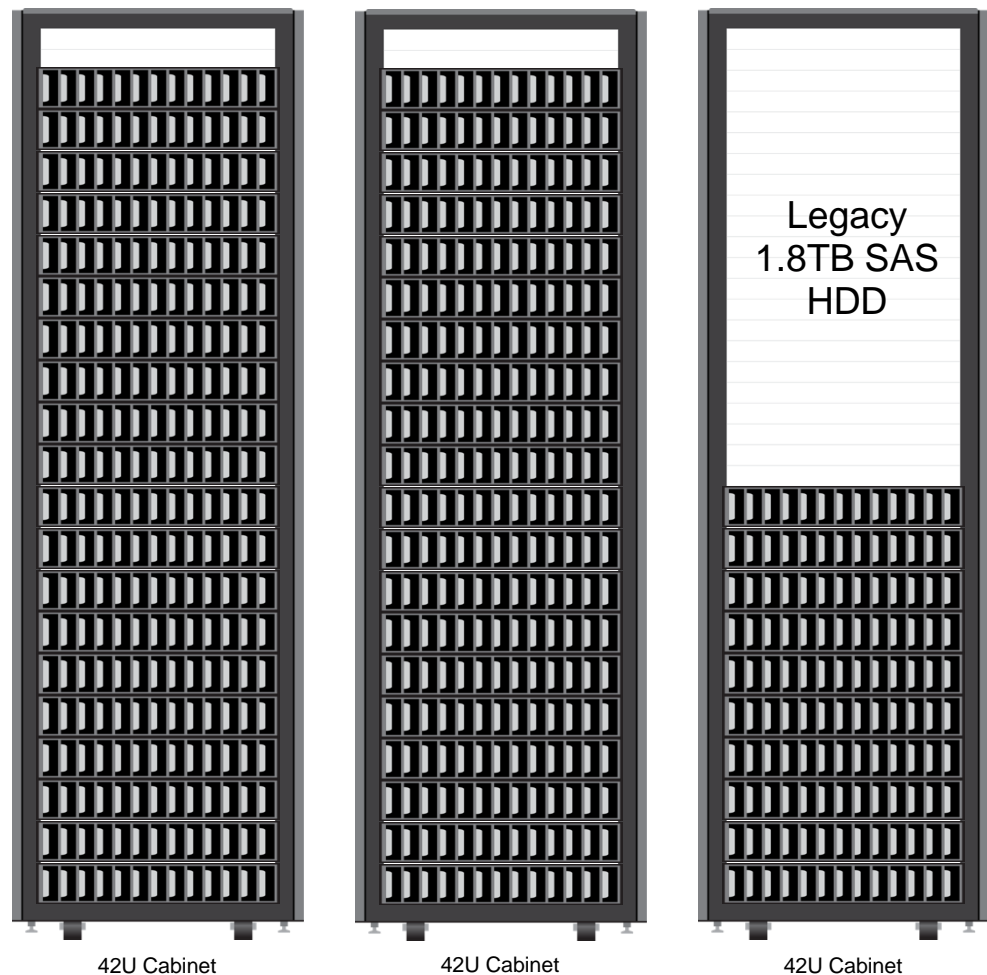
- **Standard 4:1 storage efficiency guarantee** available for customers using SAN protocols
- A risk-free approach to more storage, more value, and more efficiency
- Our guarantee: If we don't meet your workload efficiency goals, we'll make it right at no cost to you
- Available for AFF and now the new ASA systems



Storage Efficiency Guarantee
on all ASA systems

NetApp AFF C-Series: 50x density

Compared to SAS drives with no storage efficiency



vs.



Bezel mock-up; Not final;
Initial shipments may use older bezel

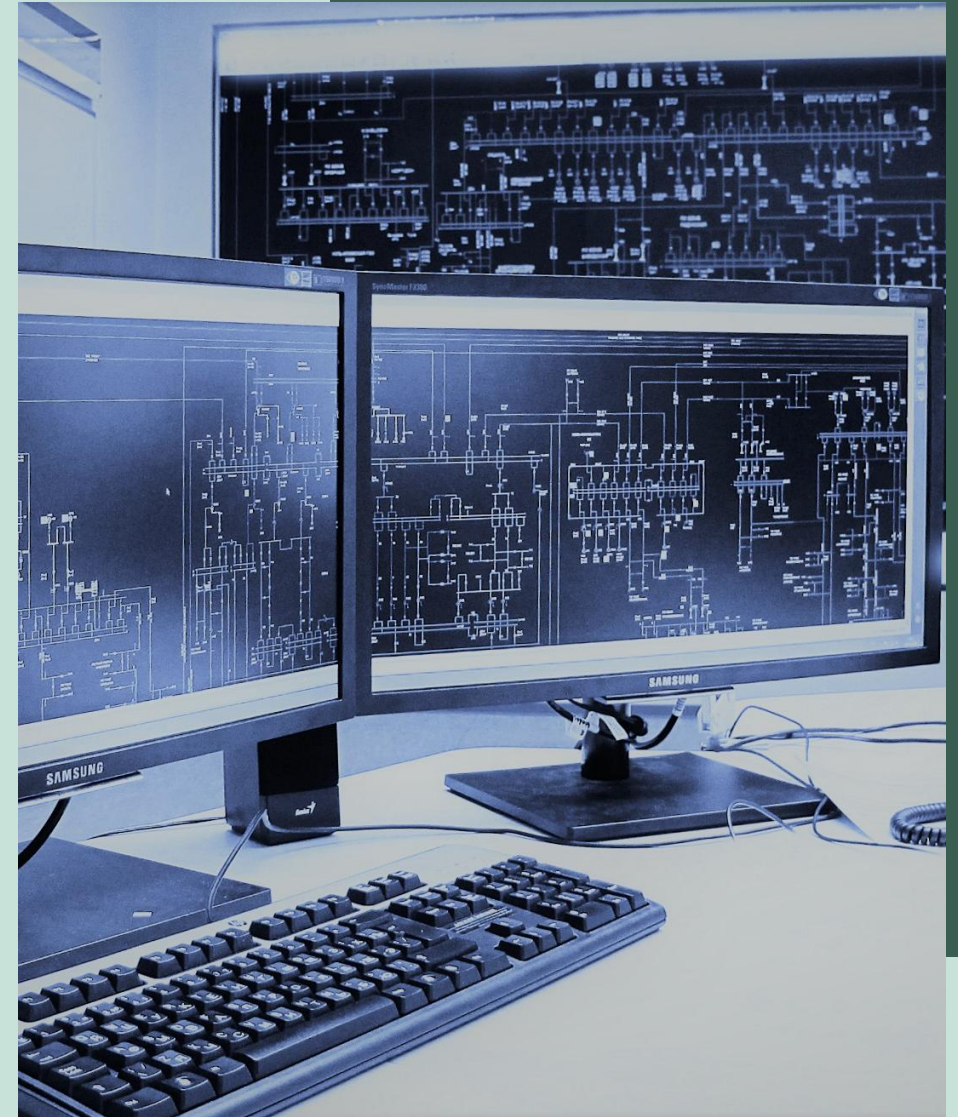
98% decrease in rack space
97% less power consumption

	kWh/year
50 x SAS 10K Systems	131,400
1 x C250	4,344

Equivalent to the greenhouse gas emissions of
20 gasoline vehicles for an entire year

THE MOST SECURE STORAGE ON THE PLANET

Your data's last line of defense

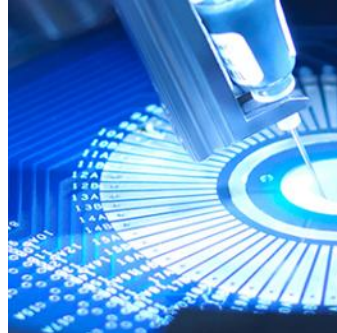


NETAPP SECURES AND PROTECTS AGAINST TODAY'S TOP CONCERNS

Integrated security is incorporated throughout the NetApp portfolio



Compromised administrator credentials—**multifactor authentication (MFA)**



Stolen data—**layered encryption**



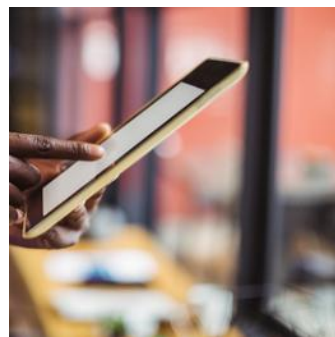
Assured data retention—**write once, read many (WORM) storage**



Hacked software images—**secure boot**



Rogue administrators—**multi-admin verification and audit logging**



Ransomware attacks—**NetApp® Snapshot™ copies and integrations**



Lateral network attacks—**secure multitenancy (SMT)**



Disaster outages—**data replication**

FULL-SPECTRUM DATA PROTECTION BUILT INTO ONTAP

Secure your data, recover from disaster, spot the attack, and thwart ransomware

PROTECT



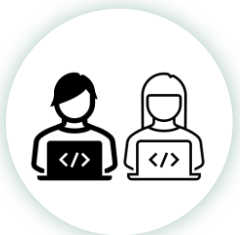
Policy Engine

Automatically block known malicious file types



Immutable WORM Primary Data & Tamper-Proof Snapshots

Prevent data destruction with immutable and indelible snapshots



Multi-Admin Verify

Block rogue admins and malicious users



End-to-End Encryption

Secure data access, end-to-end

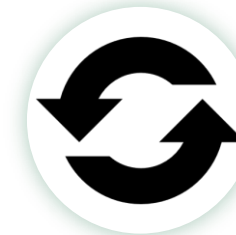
DETECT



Autonomous Ransomware Protection

Automatically detect and respond to file system anomalies that may signal a ransomware attack – **built into ONTAP**

RECOVER



SnapRestore

Restore data in minutes from secure snapshots

FULL-SPECTRUM DATA PROTECTION BUILT INTO ONTAP

Secure your data, recover from disaster, spot the attack, and thwart ransomware



NetApp will **warrant snapshot data recovery** in the event of a ransomware attack



If you can't recover your data copies with help from NetApp or partner assistance, NetApp will **offer compensation**

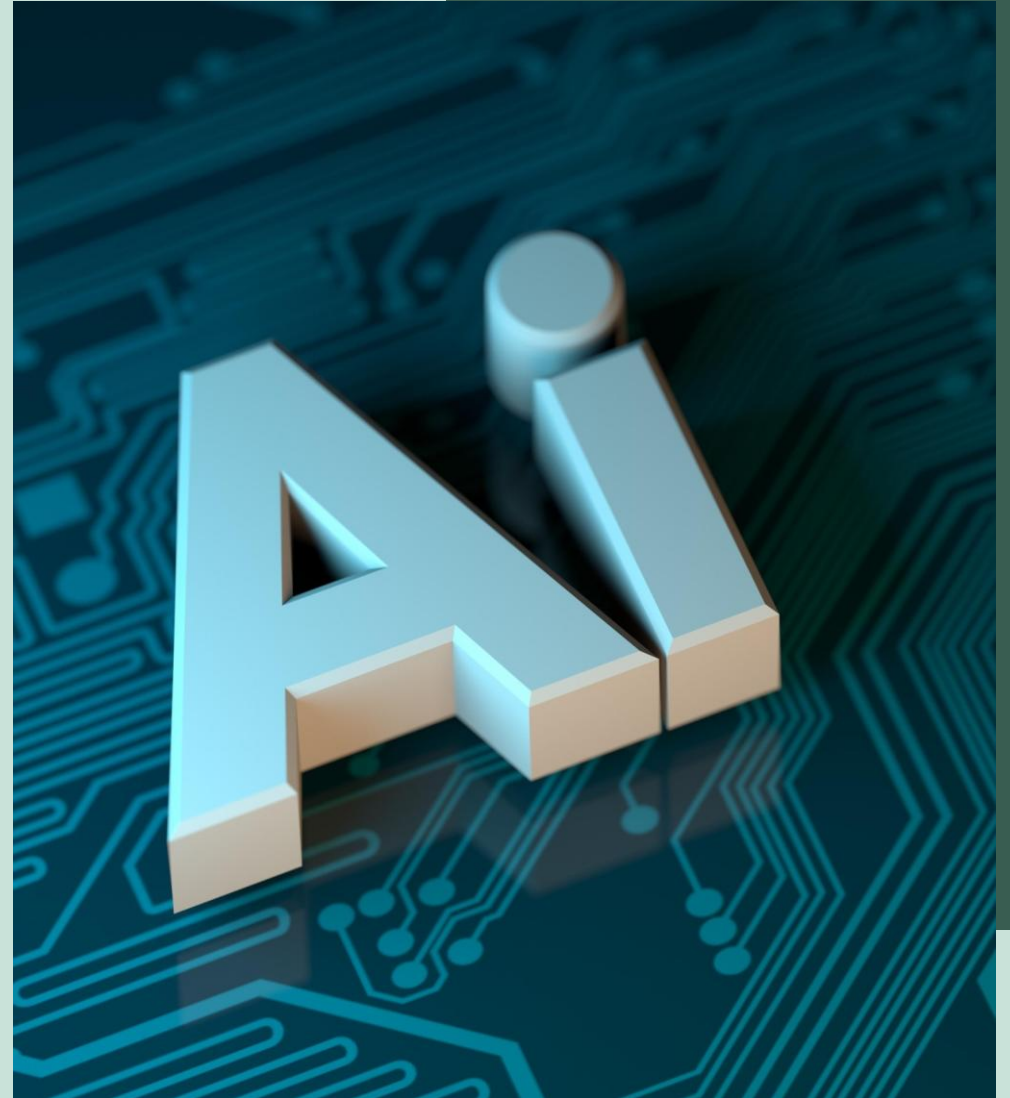


NetApp Ransomware Recovery Guarantee



AI IS BUILT ON NETAPP

Let your data pipeline flow





“NETAPP IS THE LEADER IN
AI STORAGE, AND NVIDIA IS THE
LEADER IN AI COMPUTE.”

- **Matt Hull**
VP of Global AI Data Center Solution Sales NVIDIA

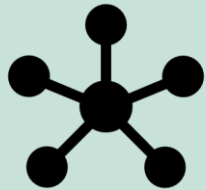
NETAPP ONTAP AI INTEGRATED INFRASTRUCTURE

Prescriptive offering from NetApp and NVIDIA simplifies procurement, configuration, installation and support for AI workloads with validated best practices for optimum performance



**AI expertise
from NVIDIA
and NetApp®**

+



**Fully configured
and installed**

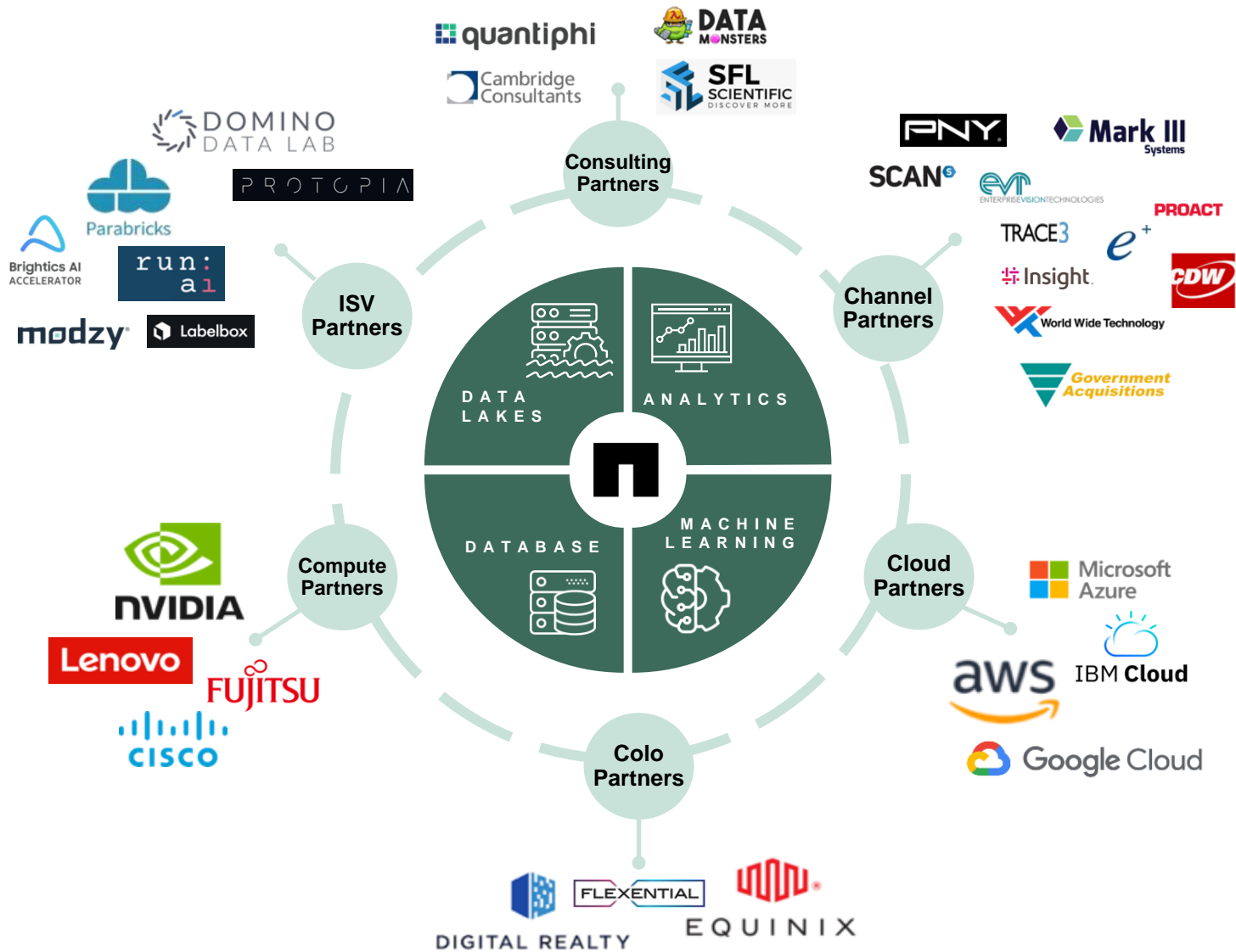
+



**Simple
support model**
Single point of contact with
NVIDIA backed by NetApp



Predefined, configured, delivered, installed, optimized, supported



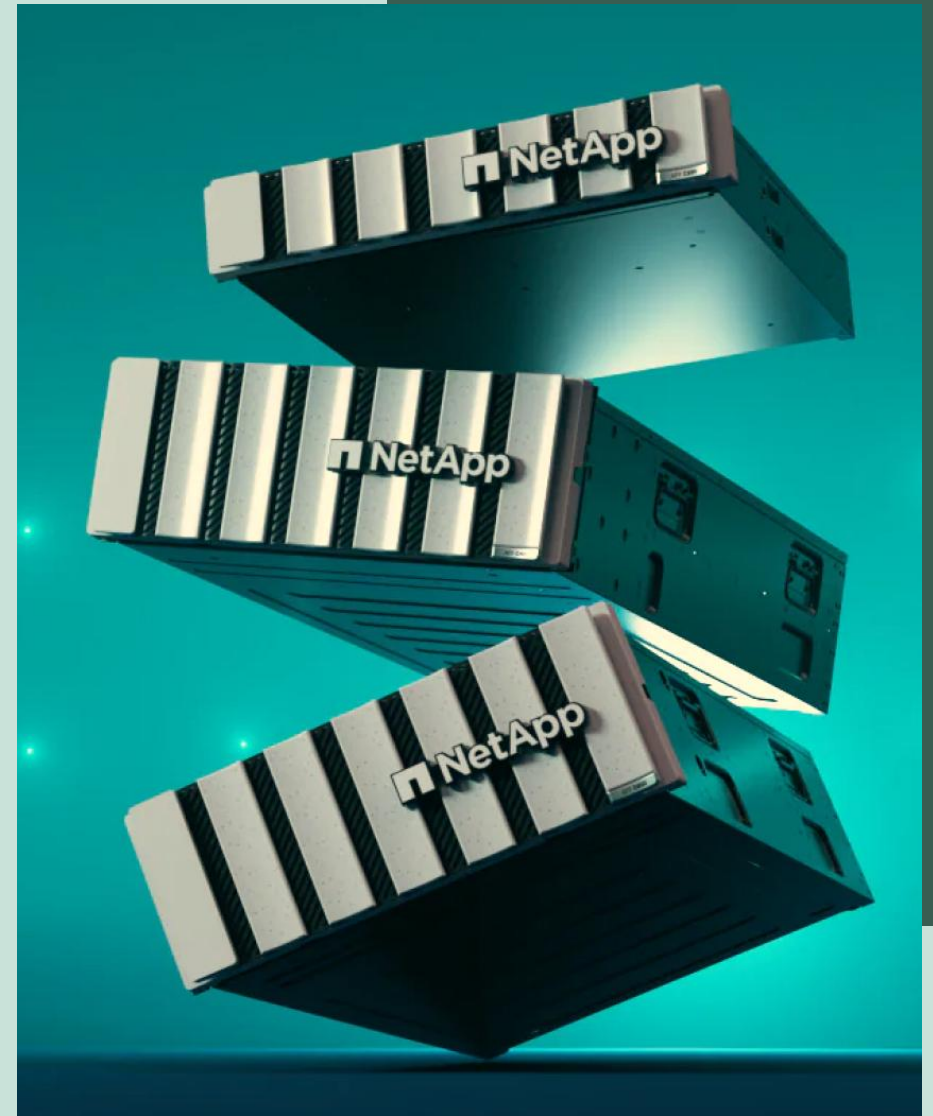
Leverage a massive AI ecosystem with your data on NetApp at the center of it all

YOUR DATA SHOULD BE...

- Simple at any scale
- Affordable and sustainable
- Safe and secure
- Powering your AI initiatives

Your data deserves

NetApp



THANK YOU

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**Серия вебинаров
По NetApp®**