How to Future-Proof Your Multi-Cloud Strategy

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STAR PARTNER

cStor
We look beyond IT

Robert Ruby
Manager,
Americas Solutions
Architects
NetApp

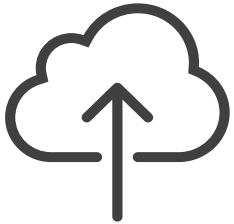
Neal Williams
Sales Director
cStor

cStor: AN AWARD-WINNING PROVIDER

- Helps clients solve tough IT challenges with best-of-breed technology and expert consulting solutions
- Creates and implements end-to-end solutions to fit your business needs
- Helps create a cost-effective architecture
- Displays a competitive advantage over other providers
- Creates flexibility by offering vendor agnostic solutions
- Always puts clients first

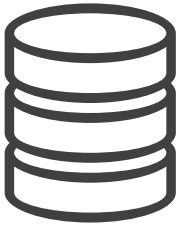
SOLUTION OFFERINGS

Professional Recommendations to Ensure Your Infrastructure Evolves Alongside Your Business



DIGITAL TRANSFORMATION

CYBERSECURITY



DATA CENTER

We look beyond IT

cStor

OUR APPROACH

Our mission to put people on a path to success

Clients First

Vendor Agnostic

Highly Specialized

cStor SERVICES

- STAFF AUGMENTATION
- CONSULTING AND OPTIMIZATION
- DELIVERY
- CYBERSECURITY
- CLOUD
- MANAGED SERVICES
- DATA MIGRATION

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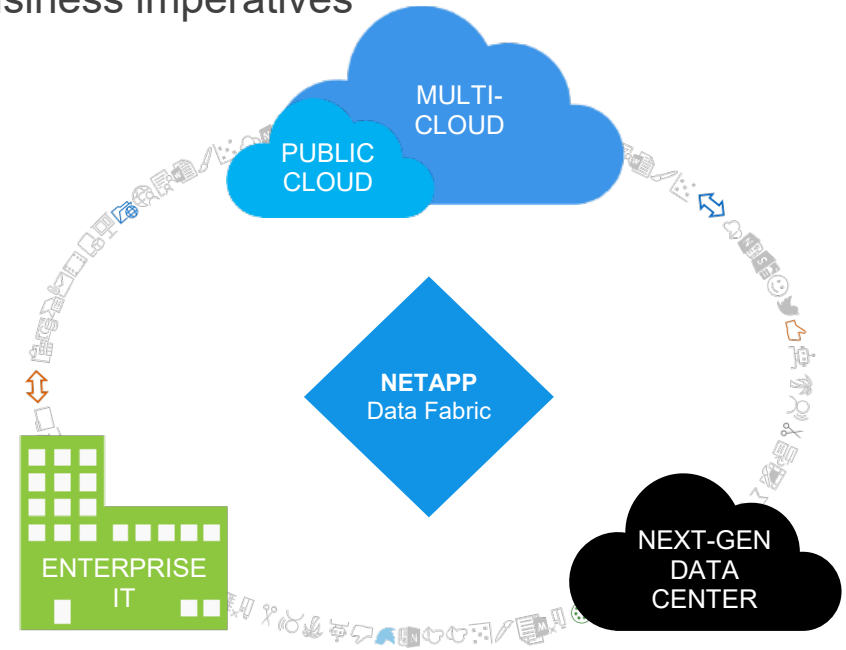
Data Fabric

Data Fabric

Helping customers unleash data to accelerate digital transformation and address their business imperatives



INNOVATE
with the power of the hybrid cloud

BUILD
a next-generation data center

MODERNIZE
storage through data management

Office 365
salesforce
SaaS Backup

Technology	Description	Cloud
Cloud Volumes ONTAP	ONTAP in the cloud – full feature set	AWS, Windows Azure
Cloud Volumes	NFS & SMB	AWS, Google Cloud Platform
Azure NetApp Files	NFS & SMB	Windows Azure

AWS
Google Cloud Platform
NKS
NetApp Kubernetes Service
Windows Azure
MAX Data
SCM
Storage Class Memory

OnCommand
UM / PM | NSLM / API | OCI & Cloud Insight | WFA | O C C M | REST API

Management & Orchestration
NetApp, 3rd Party, & Cloud

NetApp CloudSync
Any NFS/SMB/Object

Native Replication

Cloud Connected
Express Route
Direct Connect
NetApp Private Storage

Hewlett Packard Enterprise | DELL EMC | IBM | HITACHI DATA SYSTEMS

On Prem Data Center(s)
Fibre Channel / FCoE / NVMeoF / iSCSI / NFS / SMB / Object / SCM / IB

NKS
NetApp Kubernetes Service

MAX Data
SCM
Storage Class Memory

APP OS | APP OS | ONTAP
Virtualization
ONTAP Select
Software Defined Storage

FlexPod

HA PAIR
ONTAP

HA PAIR
E-Series

SolidFire

NetApp HCI

StorageGRID

NetApp

https://cloud.netapp.com | https://netapp.io

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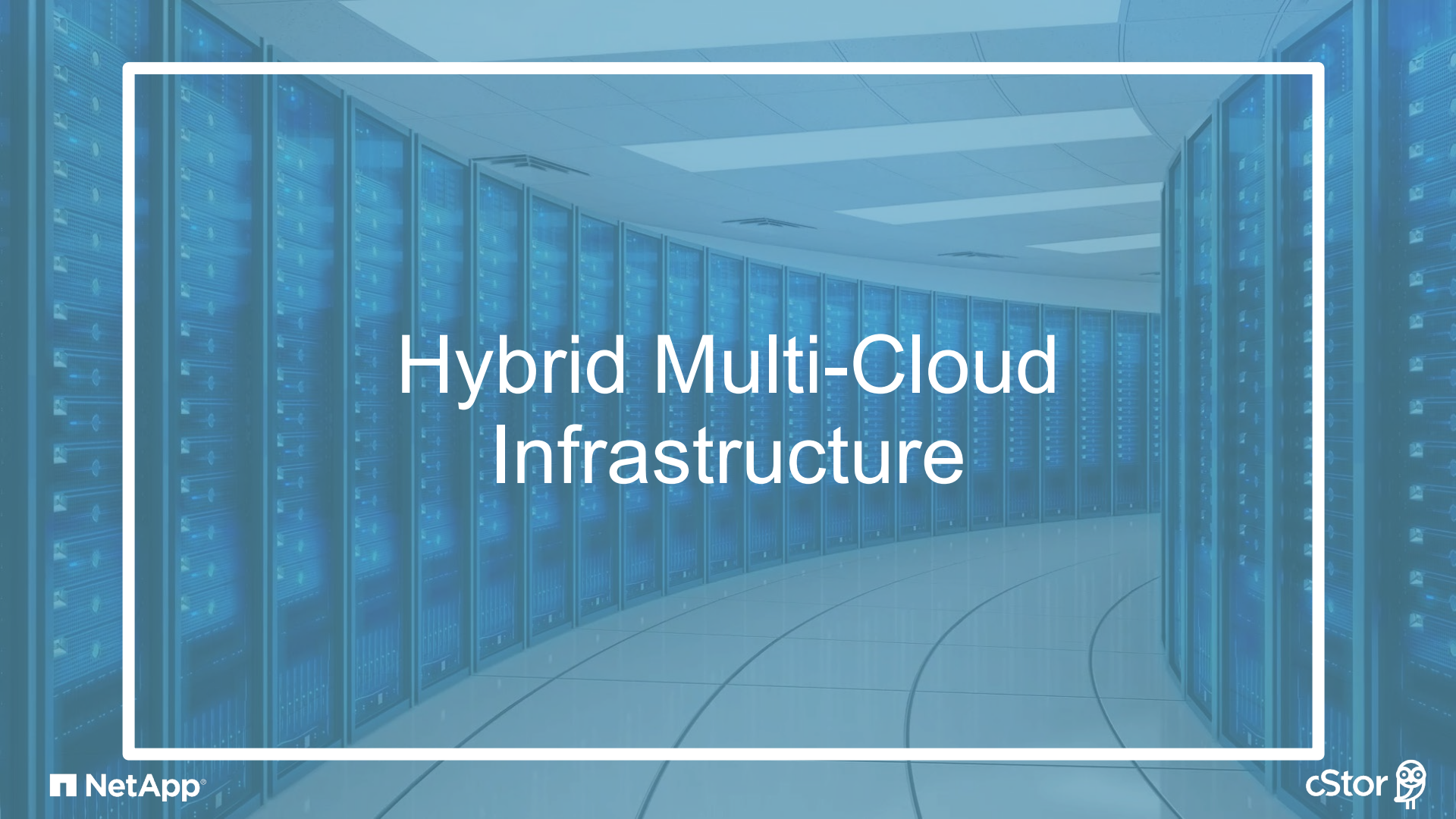
Hybrid Multi-Cloud
Infrastructure
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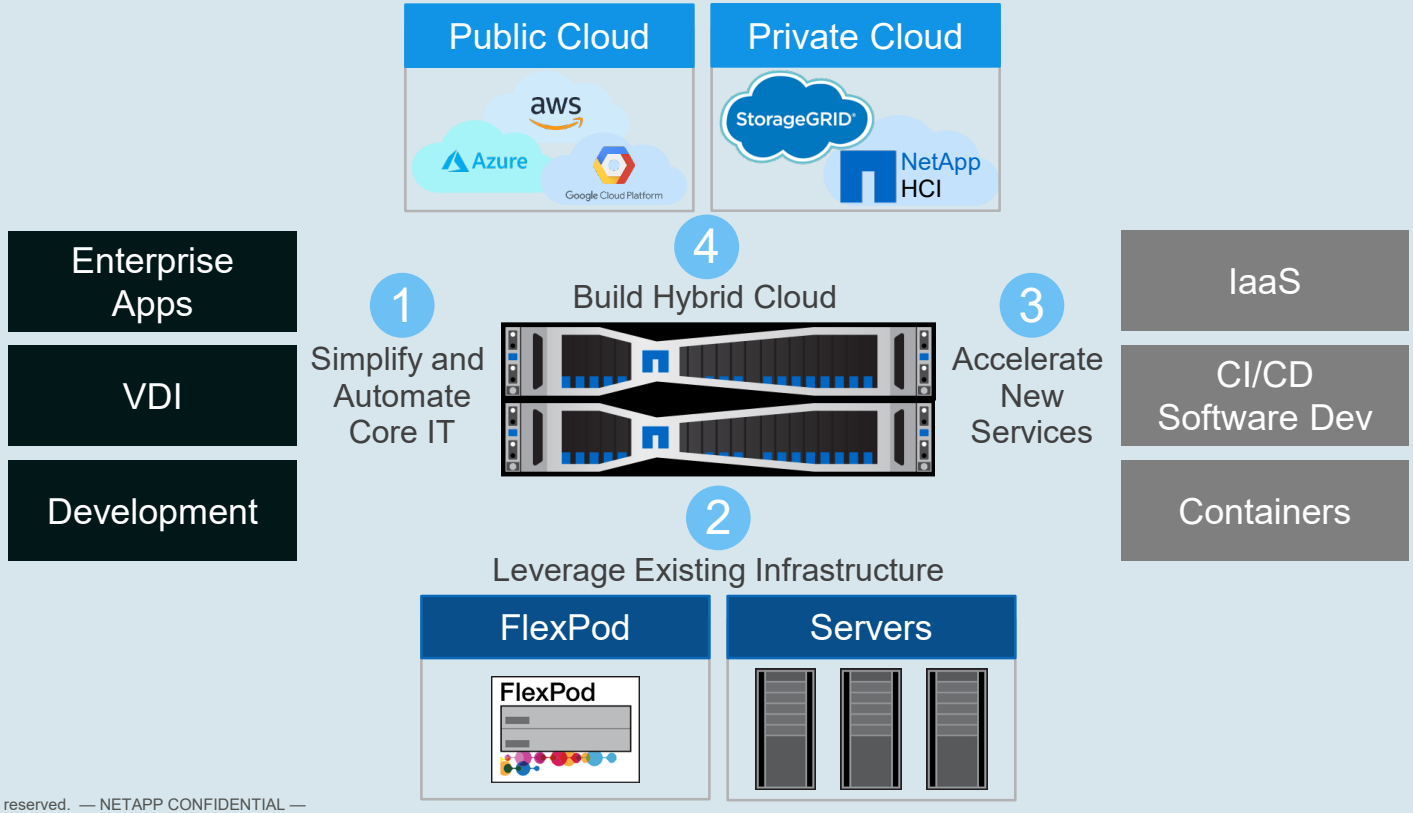
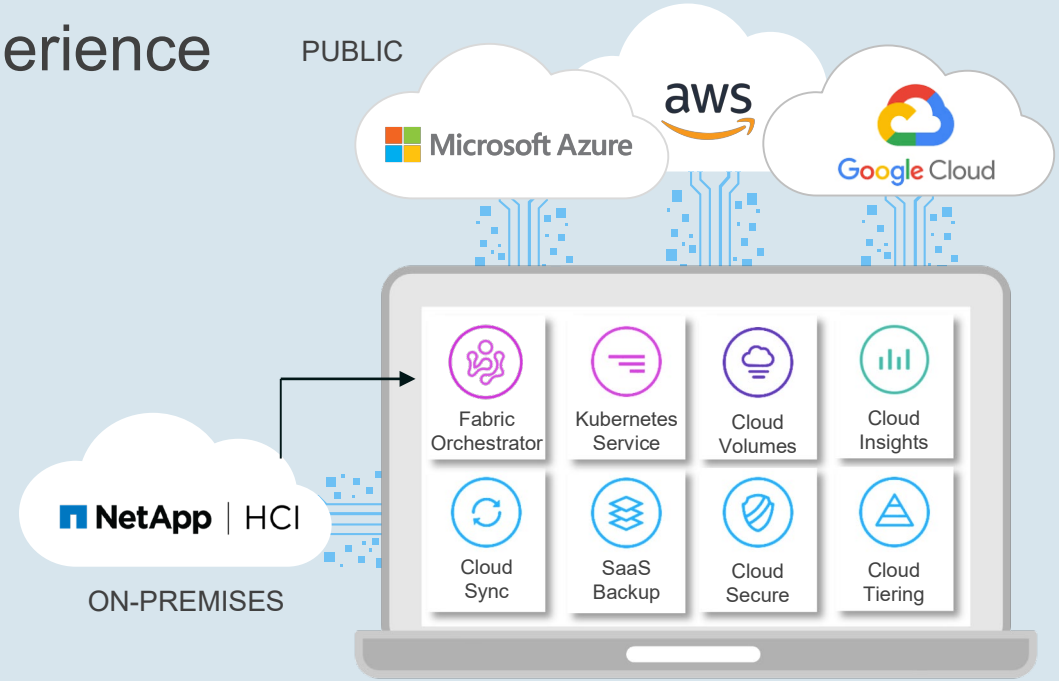
Public Cloud Architectures for Private Cloud

Where We Are & Where We Are Going



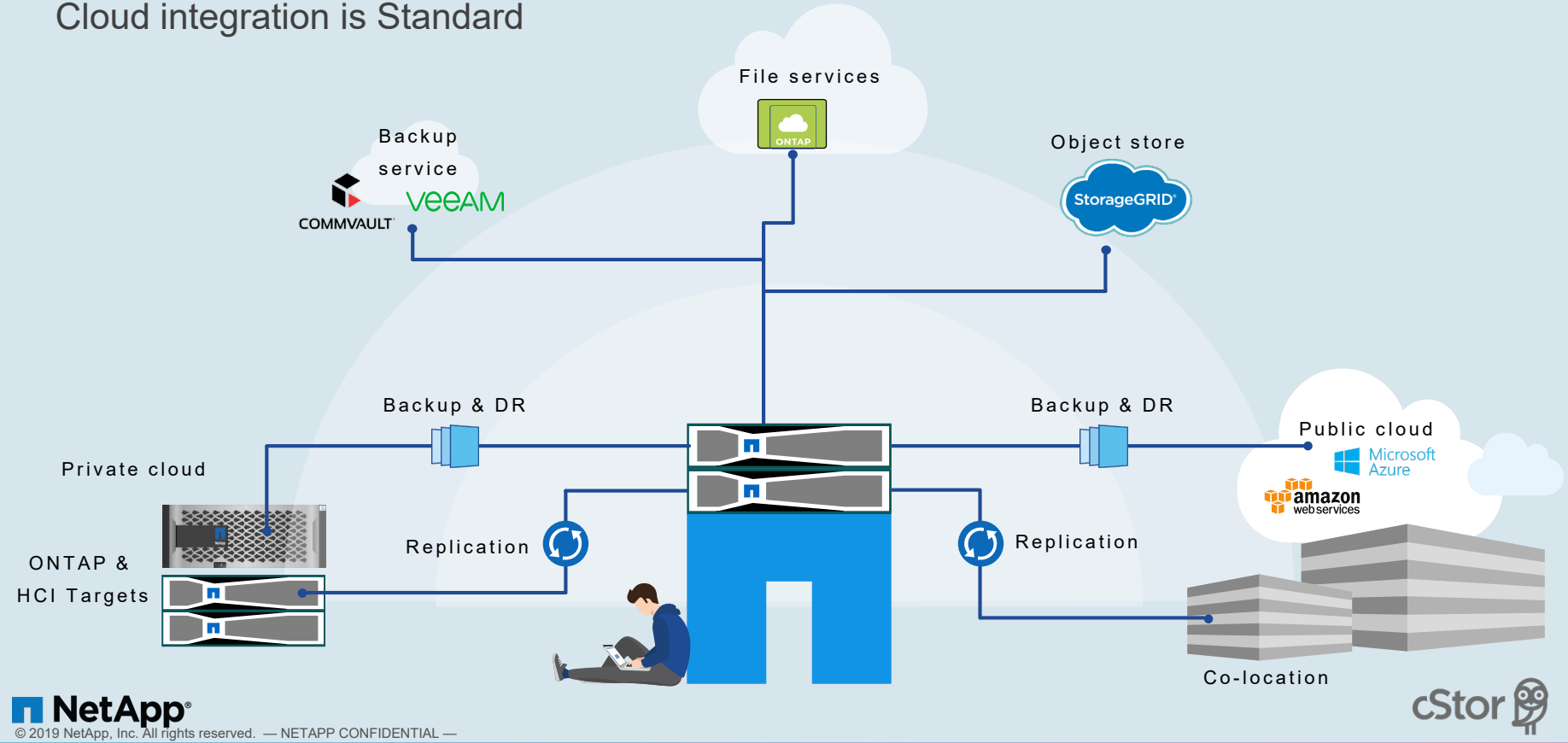
NetApp Creates a Better Hybrid Multicloud Experience

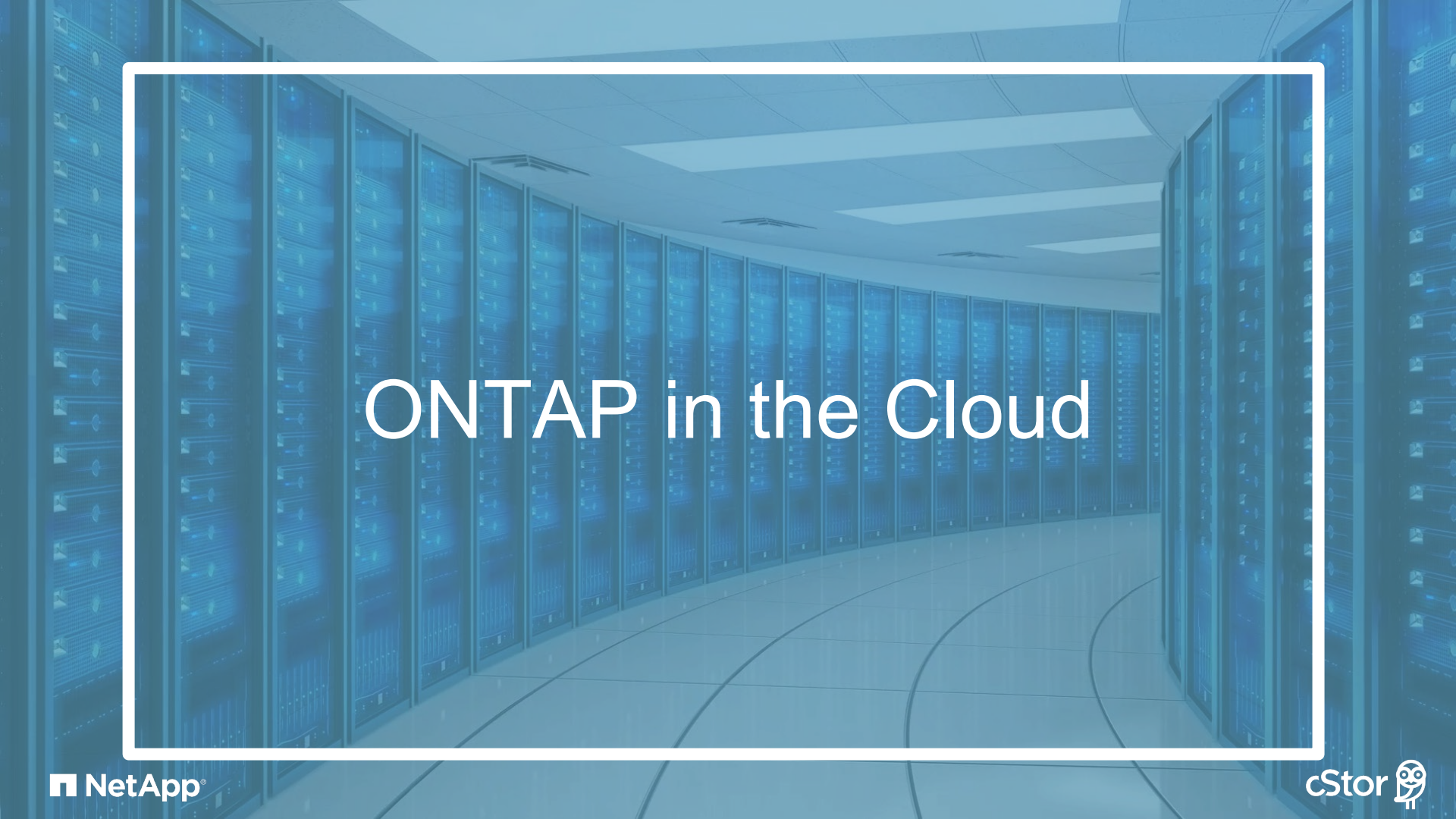
- Consistent service consumption experience across Public Clouds and on-premises
- Simplify effective Infrastructure-as-a-Service delivery on-premises
- Deliver new services and applications faster via DevOps and Automation integration



NetApp Data Fabric

Cloud integration is Standard




ONTAP in the Cloud
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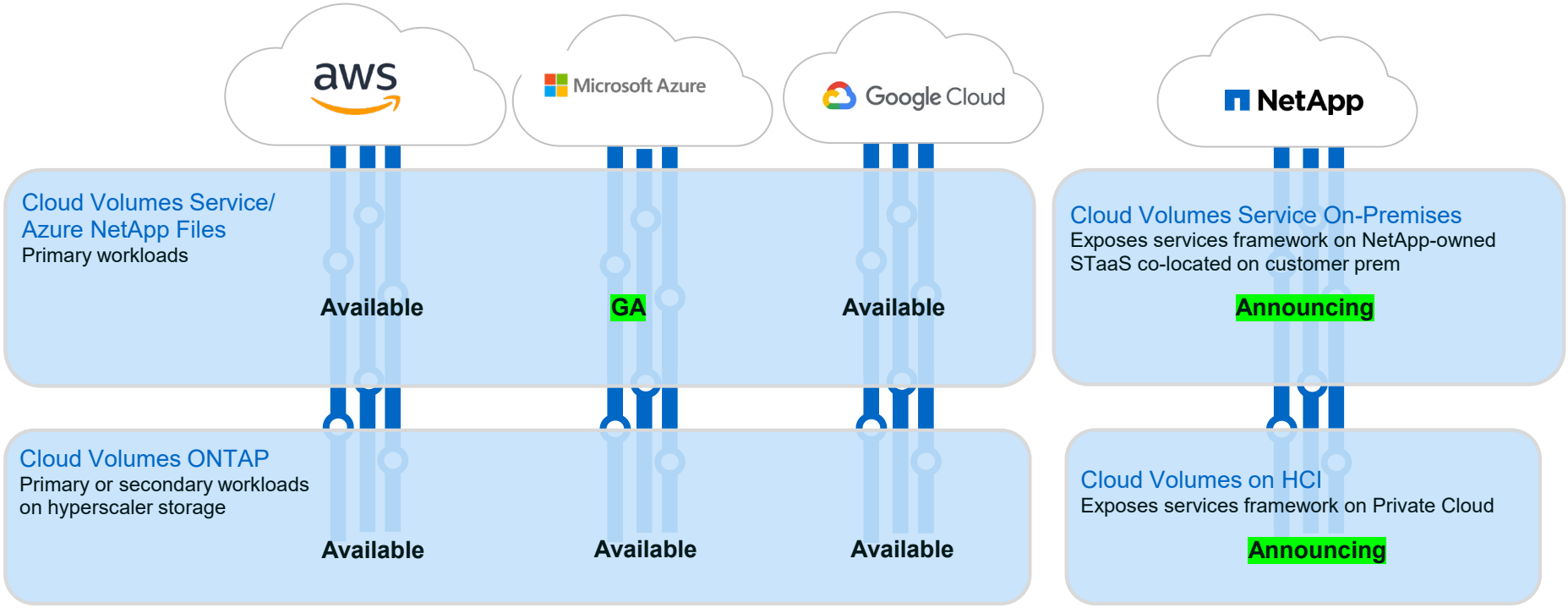
Cloud Volumes Anywhere, One Experience

Common services framework for agile orchestration and consumption of data services



Cloud Volumes ONTAP vs Cloud Volumes Service for Different Needs

	Cloud Volumes ONTAP	Cloud Volumes Service/ Azure NetApp Files
	▪ ONTAP software running in cloud VM, managing native hyperscaler storage ▪ Pay-as-you-go or BYOL ▪ SaaS console through Cloud Central	▪ Data volumes offered as service on NetApp or hyperscaler-managed infrastructure ▪ Pay-as-you-go ▪ SaaS console through Cloud Central
Ease of Use	▪ Highly customizable ▪ Most on-prem ONTAP features	▪ Plug and Play ▪ Managed service
Target	▪ IT Storage admins ▪ IT Storage architects	▪ Cloud architects ▪ Developers ▪ Data scientists
Use Cases	▪ Disaster recovery to cloud ▪ Primary workloads	▪ Primary Workloads
Regional Availability	▪ Globally available via cloud marketplaces	▪ Co-located per hyperscaler data center ▪ Mostly in North America regions first, with other regions following

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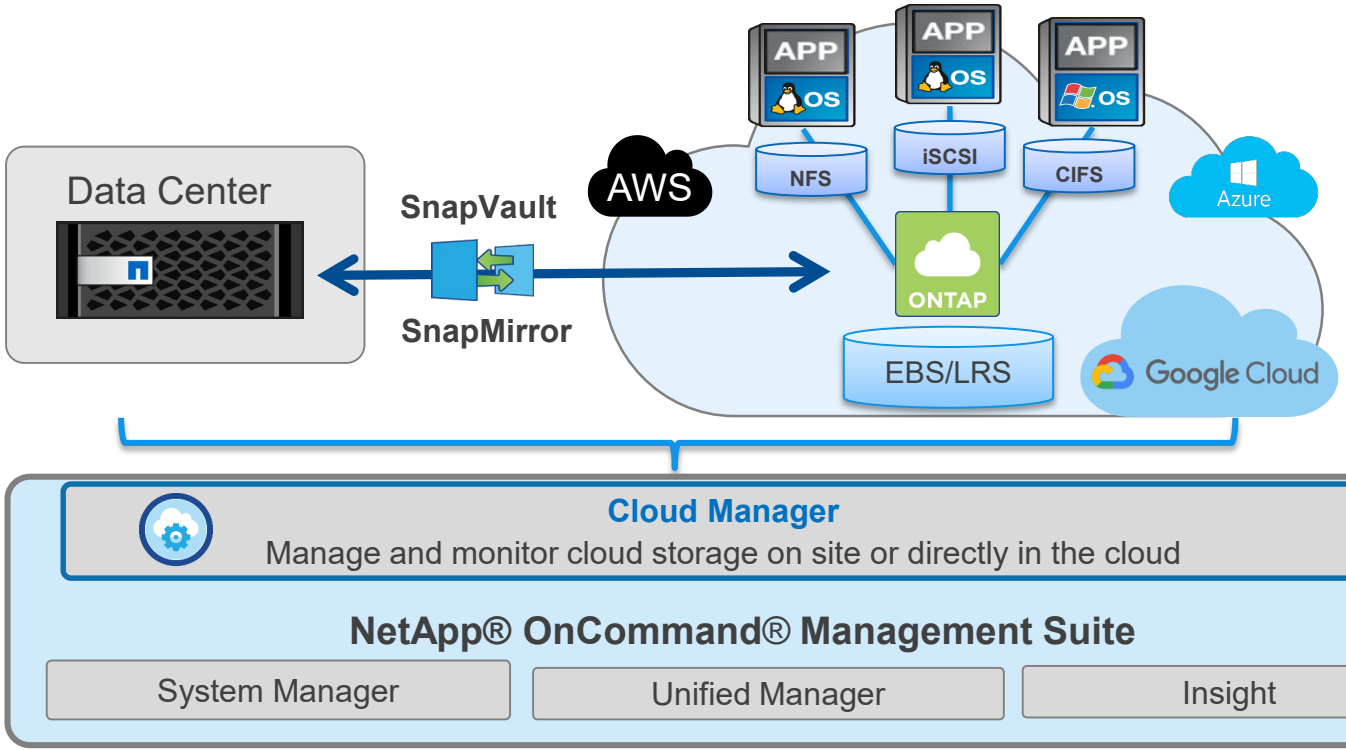
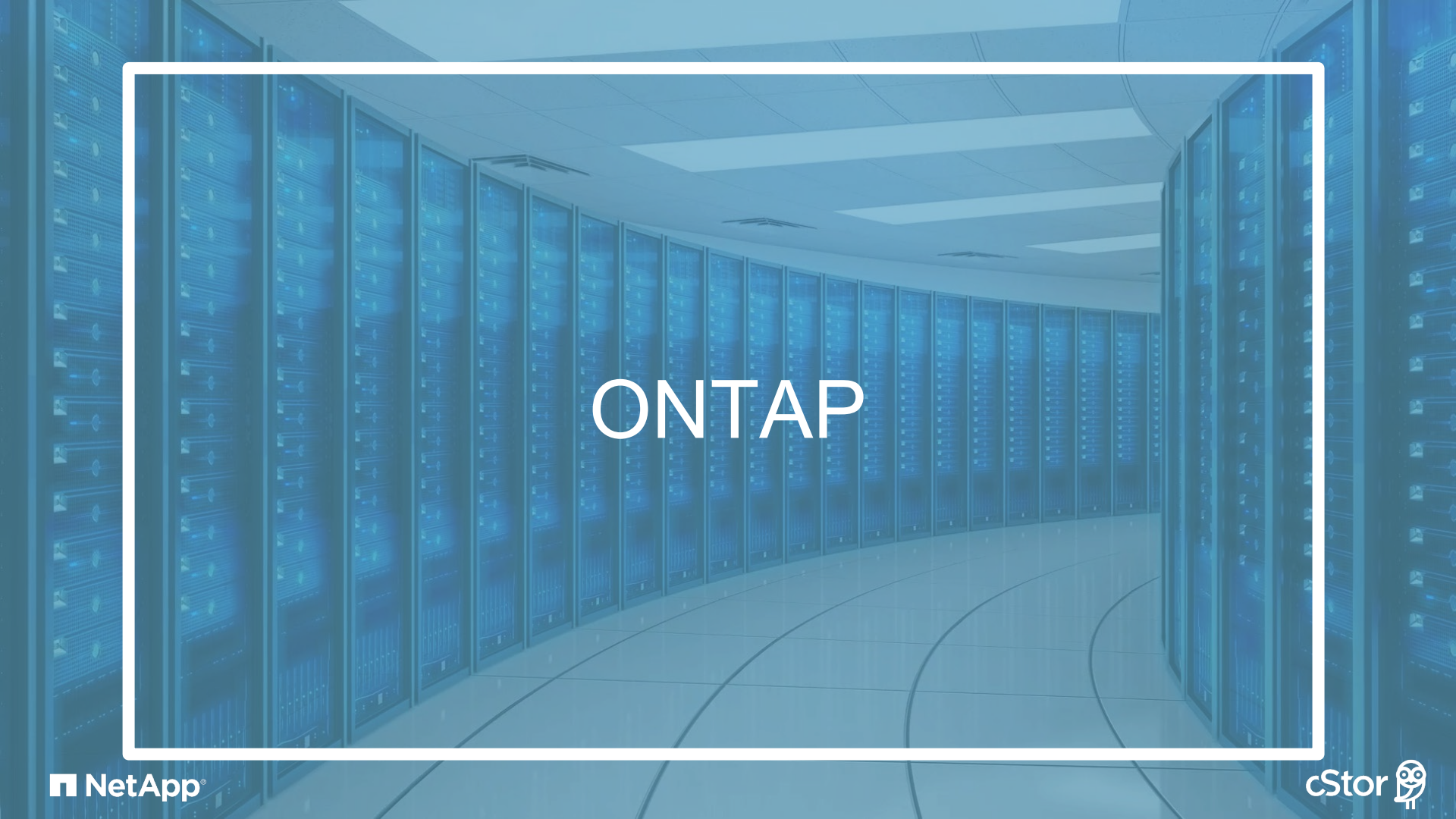
NetApp Cloud Volumes ONTAP

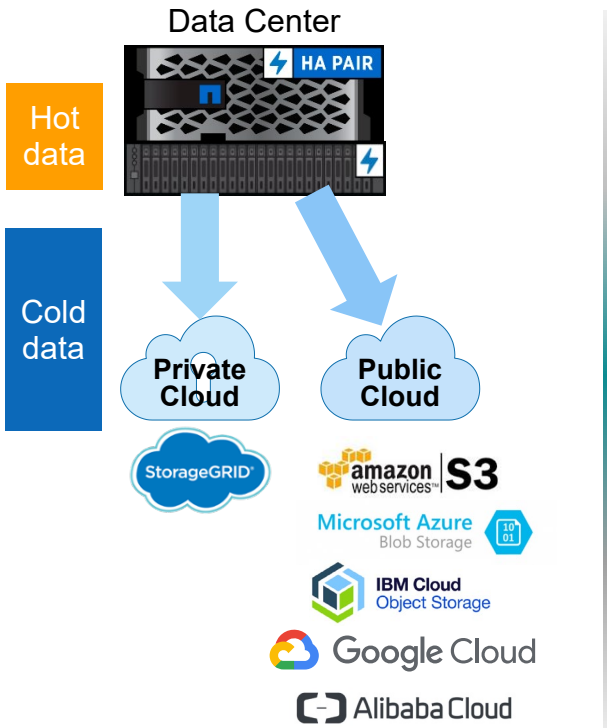
Enterprise-level Data Management in the Cloud



- **DR** and **BU** to the cloud
- Cost effective **Data Protection**
- **DevOps** in the cloud
- **Migrate workloads** seamlessly
- Unified **Management** across environments
- **Cost saving** cloud storage


ONTAP

FabricPool: Automatic Cloud Tiering of Cold Data



- Reduce primary flash storage needs by >50%
  - Decrease the size of new system configurations
  - Reclaim capacity and consolidate more workloads on existing systems
- More options for primary system
  - AFF systems, FAS systems (all-SSD aggregates), ONTAP Select, Cloud Volumes ONTAP
- Simple, per volume polices
  - **Primary volume data tiering** (auto policy)
  - Snapshot block tiering (default setting)
  - Backup volume tiering – metadata remains on flash
  - None – no tiering
- Inactive data reporting and object storage performance profiler help with solution design
- Many tiering options
  - Cloud: Amazon, Microsoft, Google, IBM, Alibaba
  - On-Premises: NetApp StorageGRID, others by exception

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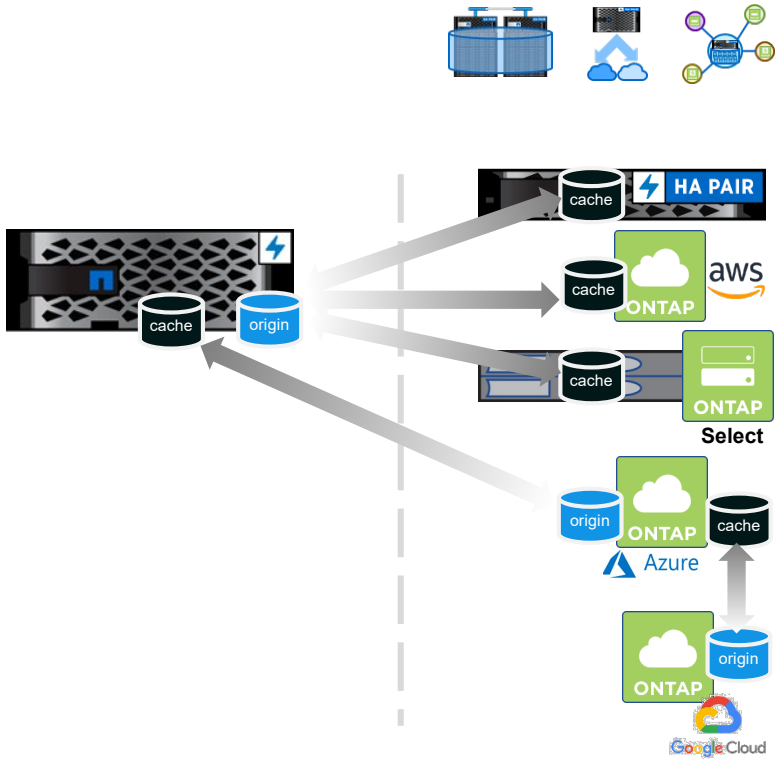
FlexCache: Global Data Distribution On-demand

- A sparse, writable cache of a volume on any ONTAP instance
  - Both the origin (source) volume and FlexCache volume look exactly the same to clients
  - Create multiple caches in multiple locations to the same origin
  - Writes are forwarded to the origin volume automatically
- Zero data transfer setup and instantaneous availability upon creation
- Provides multiple mount points to the same data set thus eliminating hot spots
- Space Efficient – Only data that is requested is cached
- Well suited for read and metadata intensive workloads

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Questions?

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Thank You!