

# Calculate your Cost Savings with ONTAP Cloud for AWS

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**Yifat Perry**

Product Marketing

[yifat.perry@netapp.com](mailto:yifat.perry@netapp.com)

**Oren Inbar**

Product Manager

[oren.inbar@netapp.com](mailto:oren.inbar@netapp.com)

 **NetApp** Webinar

# Agenda

- ① How to Calculate AWS Storage Costs
- ② NetApp ONTAP® Cloud - Storage Efficiencies
- ③ TCO Calculator Demo
- ④ Customer Testimonials
- ⑤ ONTAP Cloud Pricing
- ⑥ Q & A



# What to Consider Regarding Storage Cost?



Storage



Compute



Data transfer

\*Prices vary by regions

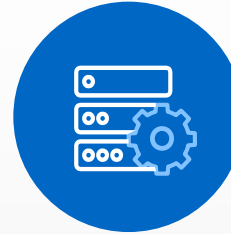


# AWS Storage Cost by Type

	Storage Type	Price Per GB Per Month	Additional cost
EBS	GP2	\$0.10 / GB	
EBS	IO1	\$0.125 / GB	\$0.065 per provisioned IOPS-month
EBS	ST1	\$0.045 / GB	
EBS	SC1	\$0.025 / GB	
EBS	Snapshots	\$0.05 / GB	
S3	Standard	\$0.0221-\$0.0223 / GB	<ul style="list-style-type: none"> <li>- Requests (GET, PUT, COPY, POST, etc.)</li> <li>- Storage management (Inventory, analysis, tagging)</li> </ul>
S3	Standard IA	\$0.0125 / GB	
S3	Glacier	\$0.004 / GB	

\* Price according to US east region

# Additional Costs



## Compute - Instance types

- On demand
- Reserved instances
- Spot instances
- Dedicated instances / hosts



## Data transfer

- IN (usually at \$0)
- OUT to different availability zone
- OUT to different region





# ONTAP Cloud Storage Efficiencies

# ONTAP® Cloud Overview

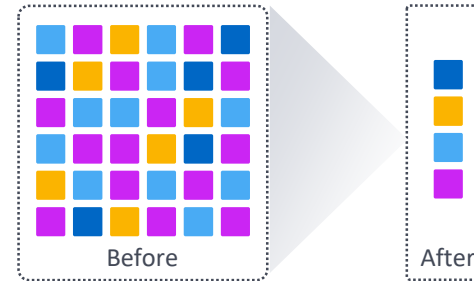
- A fully fledged version of ONTAP running natively in the cloud
- Consumes native cloud storage
- Same ONTAP tools and processes
- Mature, proven technology
- Implemented with hundreds of customers



# Storage Efficiencies

**Thin Provisioning –**  
grow as you go, and  
don't over allocate  
up front

## Deduplication –



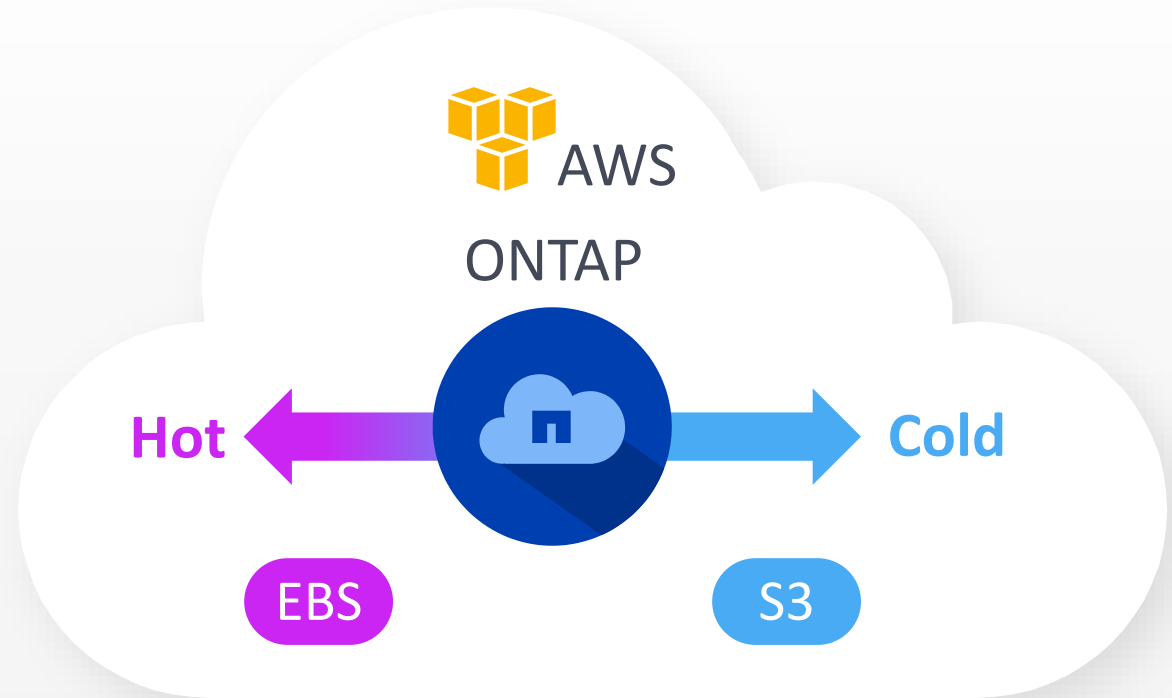
**Compression –**  
shrinking data to  
reduce overall capacity  
requirements

**Compaction –**  
fit more data into  
every 4KB blocks  
before it's written



# Tiering to Amazon S3

- EBS - performance tier for “hot” data
  - S3 - capacity tier for “cold” data
  - Reduce EBS footprint
  - Suitable for data that is not accessed frequently
- 
- ✓ **Huge cost saving!**
  - ✓ **As low as 3¢ per GB per month**



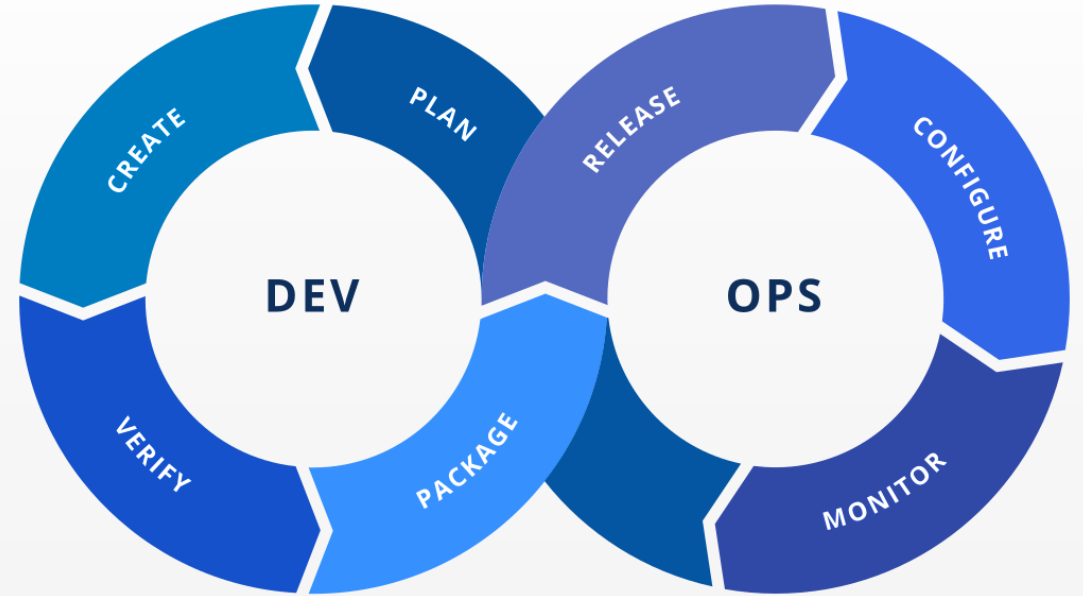
# NetApp Snapshots™ Technology

- Creates data copies instantly, under a second
- Non-disruptive to your running applications
- Minimal consumption of storage space
- Any volume size
- Additional features leveraging Snapshots technology
  - SnapRestore®
  - SnapVault®
  - SnapMirror®



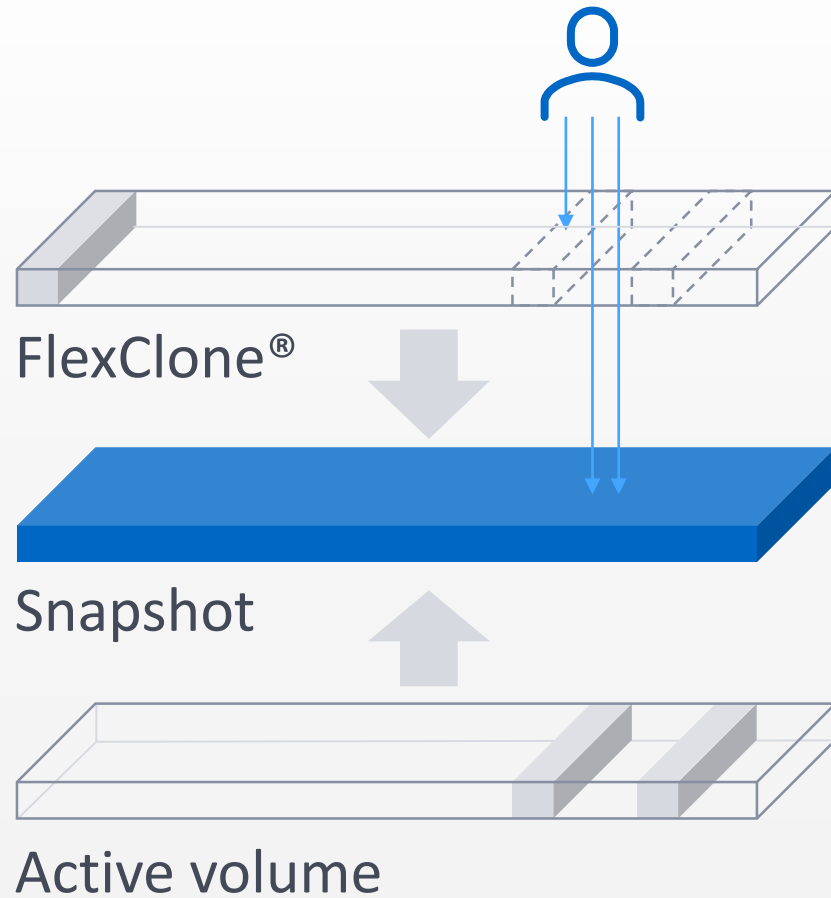
# Data Cloning with FlexClone®

- Writeable snapshots
- Zero capacity penalty
- Created instantly
- No performance penalty
- Speed up DevOps and cut costs in
- Automate testing processes





# FlexClone® - Behind the Scenes...



Cloned volume: a transparent writable layer in front of Snapshot

Snapshot of the volume

Active volume to be cloned



Demo

# Customers Testimonials





# CONCERTO CLOUD SERVICES

## Navigating a Hybrid and Multi-Cloud World



“ONTAP Cloud brings something unique to our design that no other storage platform could. It has firmly cemented our entire platform as a NetApp-only shop.”

Eric Tuley  
Director of Cloud Platform Operations, Concerto Cloud Services

96%

Data reduction in  
Amazon Web Services

50%

Data center storage  
reclaimed

<https://www.netapp.com/us/company/customer-stories/concerto-cloud.aspx>

# MONASH UNIVERSITY

Transform higher education with a cloud-only strategy supported by ONTAP Cloud



MONASH University

“Modern devices give a tremendous potential to better understand our students. ONTAP Cloud lets us bring that data together in Amazon to learn from it and make our campus better.”

Brock Cremer  
Infrastructure Services Delivery Manager, Monash University

Saved  
**25%**  
of storage costs in AWS

Cut time to provision  
environments from  
**MONTHS »**  
**MINUTES**

<https://www.netapp.com/us/media/cs-monash.pdf>

# Wirestorm – Enterprise Software Development

## Automate DevOps process with ONTAP Cloud and FlexClone



"ONTAP Cloud drastically lowered our cloud cost and server spend. My team was able to lower the number of development systems by 10 times and drop our total deployment time to mere minutes.

Jeremy Goodrum  
Vice President of Engineering, Wirestorm

Reduce development  
systems number by

10x

Configuration  
replication down from

20 hrs » < 1 min

<http://www.netapp.com/us/media/cs-wirestorm.pdf>



# ONTAP Cloud Pricing

## EXPLORE

*Single Node*

**\$0.75** / hr

*High Availability*

**\$0.49** / hr

Per Node

Suitable for smaller capacity applications. Supports up to 2 TB of underlying AWS storage.

## STANDARD

*Single Node*

**\$1.98** / hr

*High Availability*

**\$1.77** / hr

Per Node

Flexible performance and larger capacity for a wider range of applications. Supports up to 10 TB of underlying AWS storage

## PREMIUM

*Single Node*

**\$3.19** / hr

*High Availability*

**\$2.56** / hr

Per Node

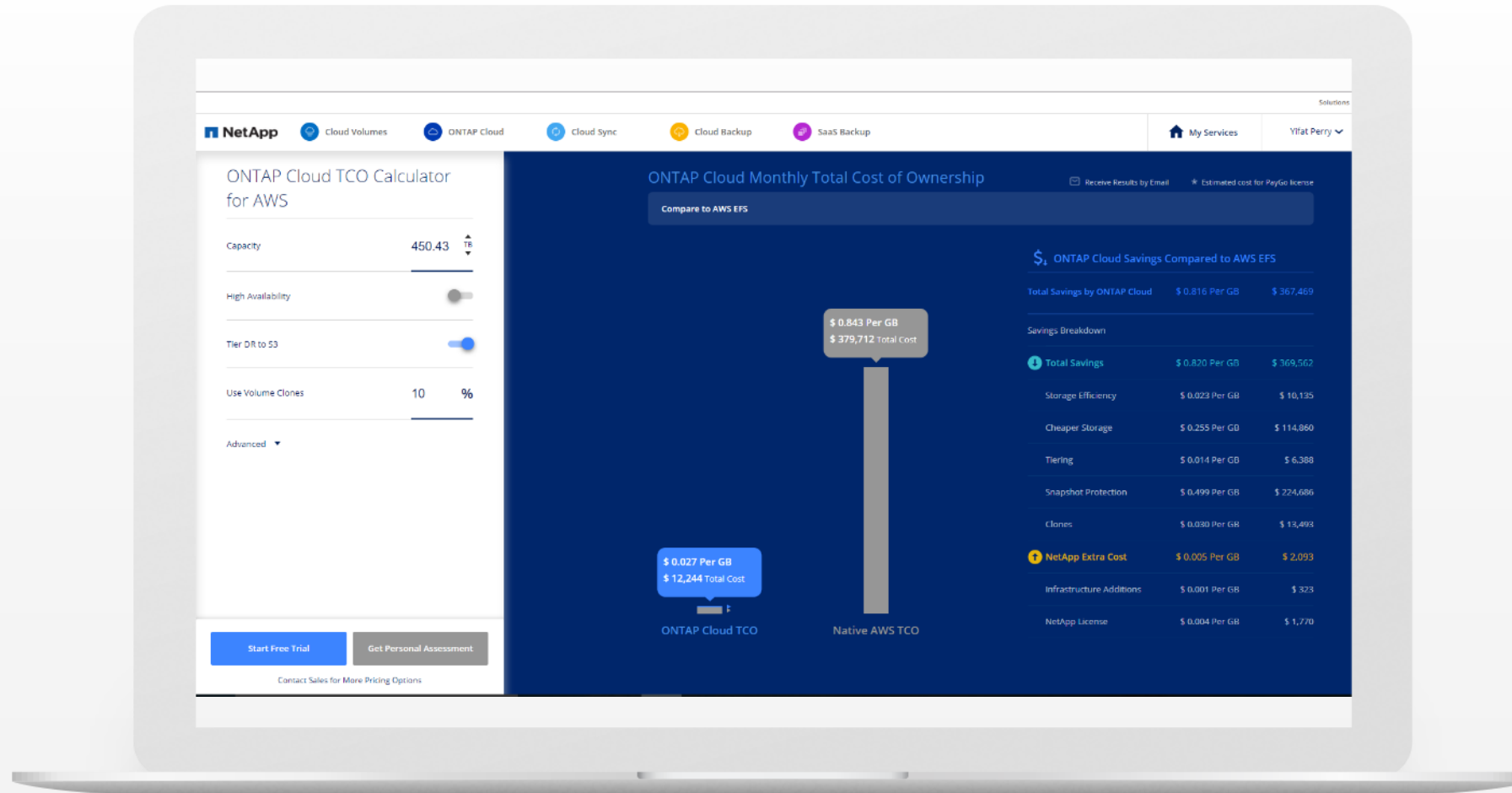
Flexible performance and expanded capacity for a wider range of applications. Supports up to 368 TB of underlying AWS Storage.

## BYOL

*Bring Your Own License*

Flexible performance and expanded capacity, with a longer term subscription. Supports up to 368 TB of underlying AWS storage.

# Check it out... [cloud.netapp.com/tco-calculator](https://cloud.netapp.com/tco-calculator)



# TRY ONTAP Cloud NOW



## Start a 30-days free trial

- NetApp's cloud solutions site
- AWS Marketplace
- Azure Marketplace



## Set up an environment in less than an hour

- Launch Cloud Manager
- Create a new ONTAP Cloud instance
- Drag and drop volumes to ONTAP Cloud to test your SaaS Applications

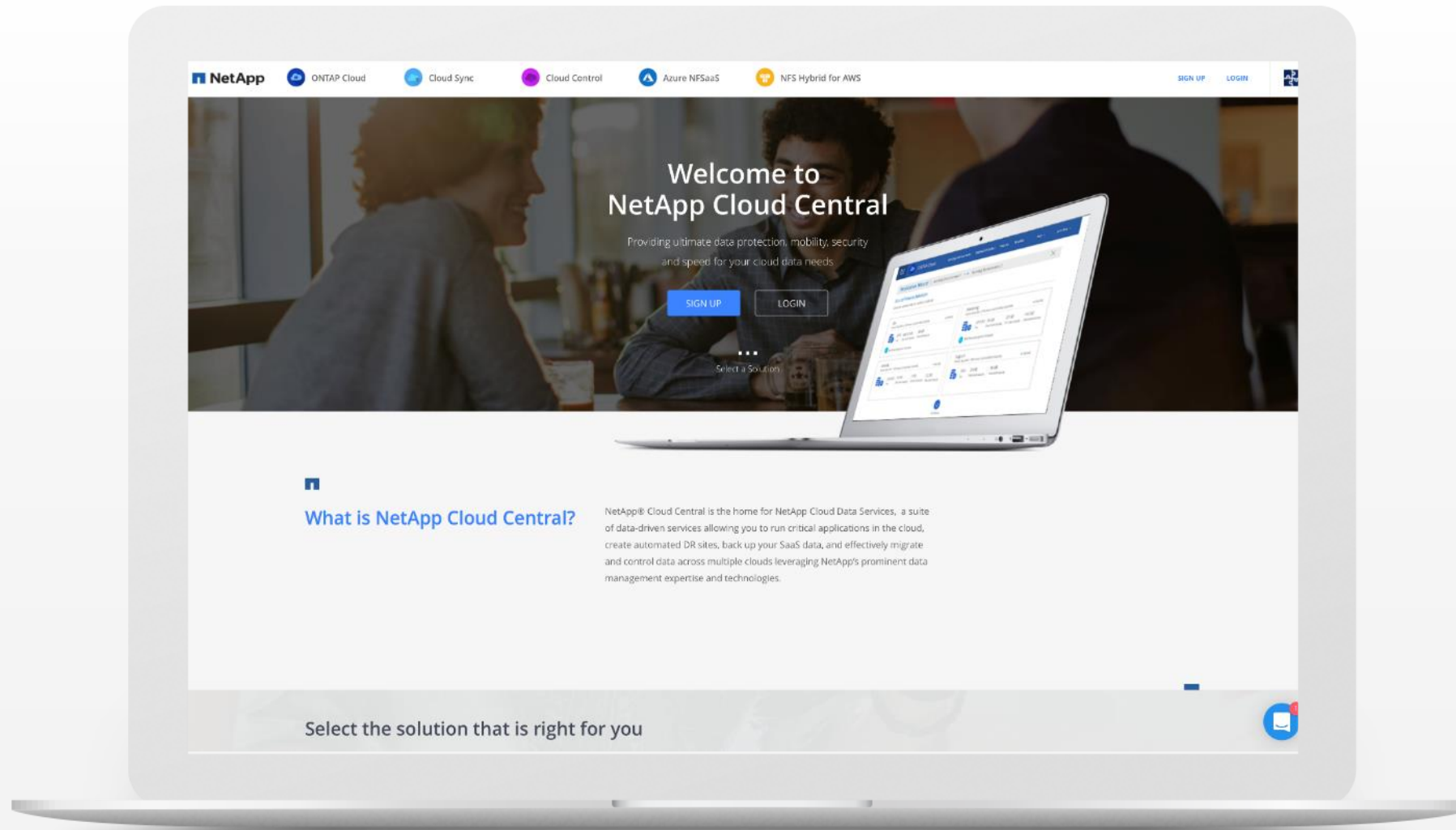


## Support

- E-mail to: [ng-cloud-manager-architects@netapp.com](mailto:ng-cloud-manager-architects@netapp.com)



# Visit NetApp Cloud Central: [cloud.netapp.com](https://cloud.netapp.com)





Q & A

Find out more and try it for free at: [cloud.netapp.com](https://cloud.netapp.com)