

Moving to the Cloud with NetApp

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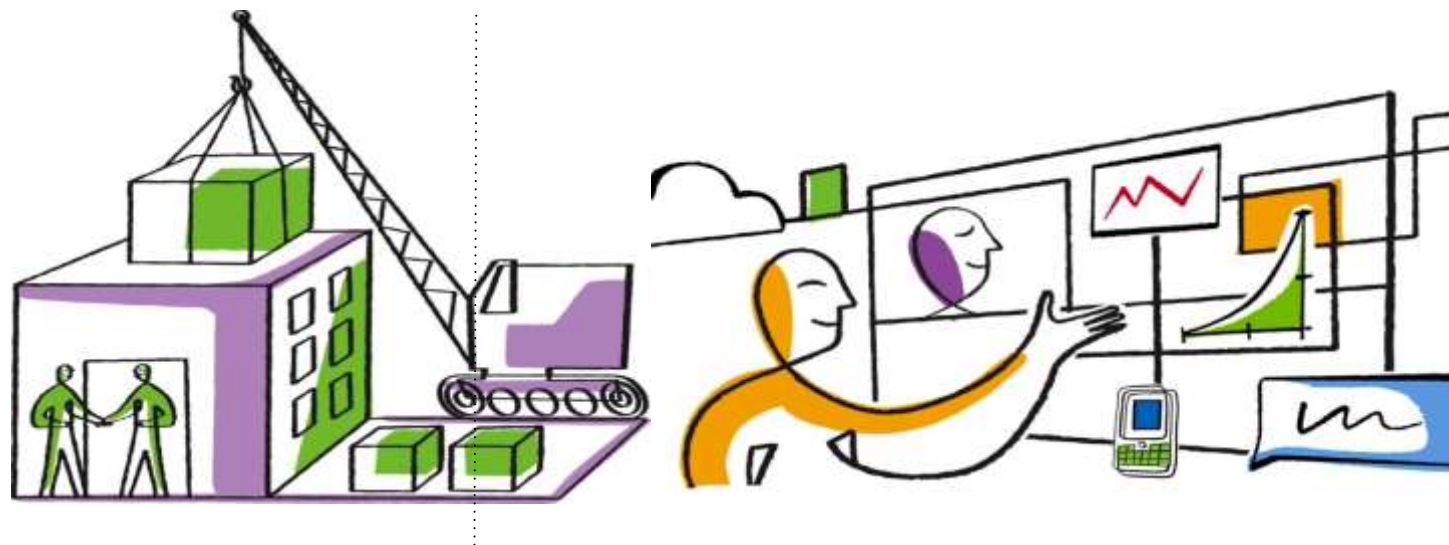


NetApp is a \$6.3B Fortune 500[®] company that creates innovative storage and data management solutions

NetApp Employees Around the World

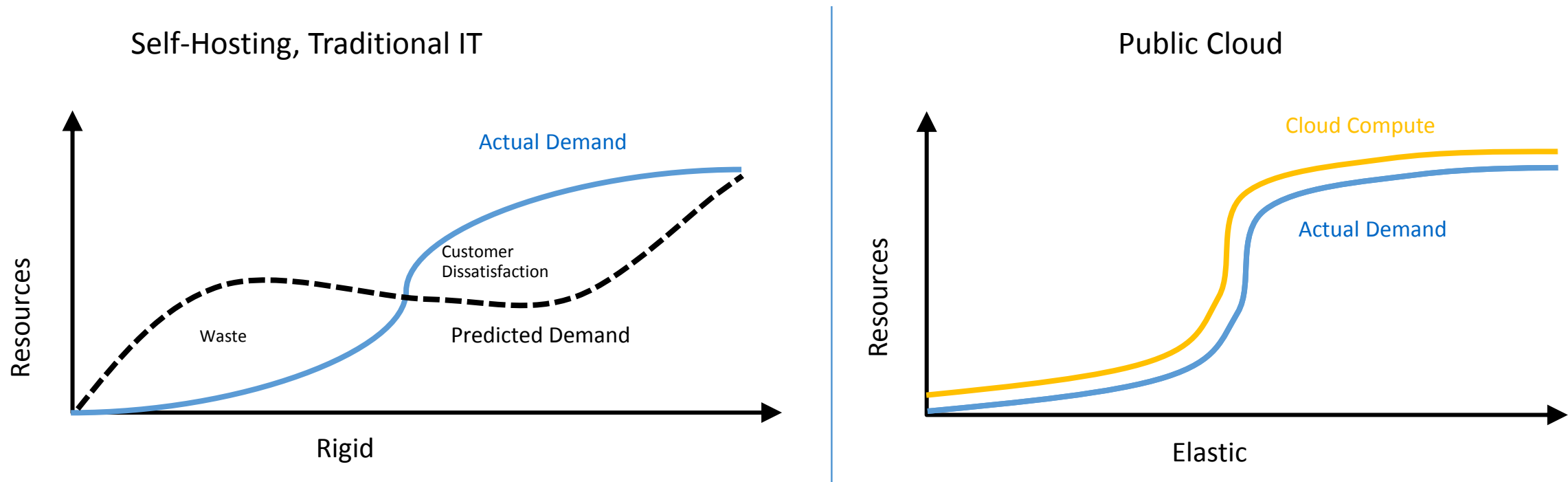
Changing role of IT

Builders & Operators → *Brokers of Services*



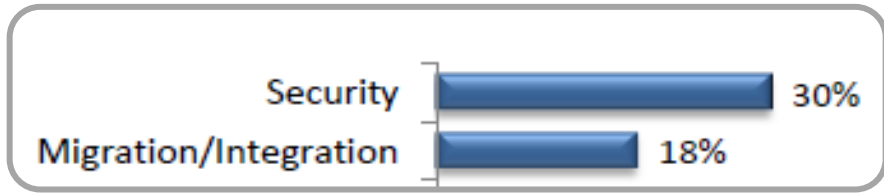
Everyone has to think like a service provider.

Cloud cost and flexibility for businesses

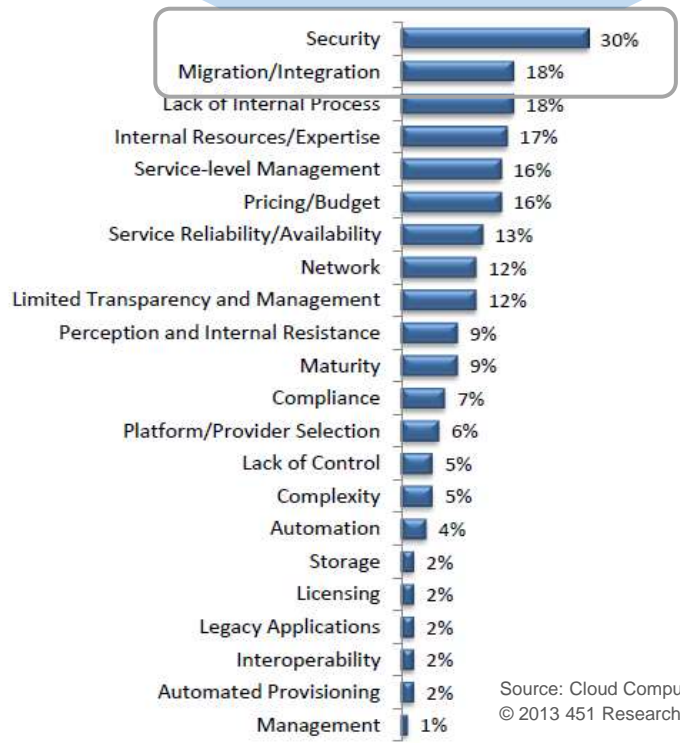
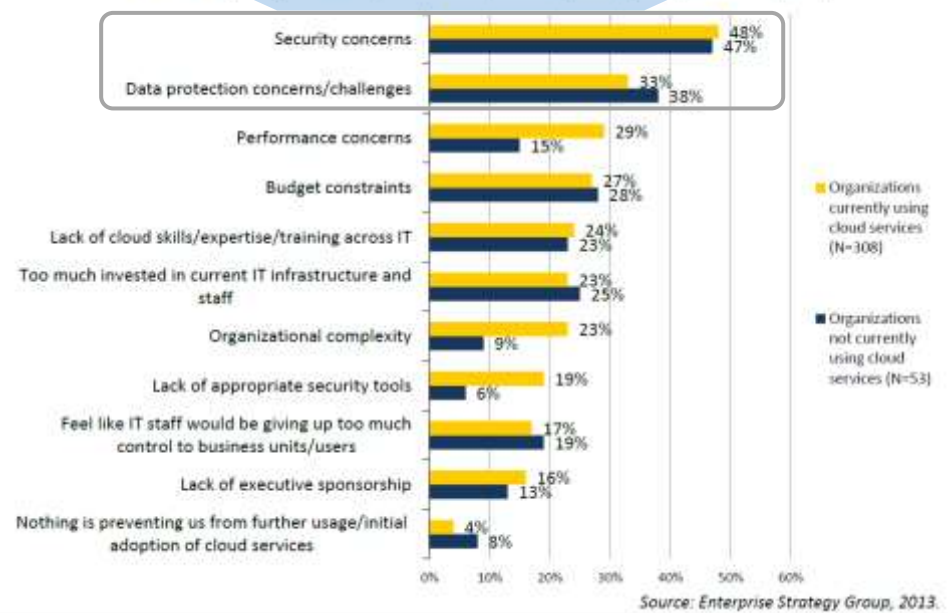


With performance, availability, and control???

Barriers to cloud adoption

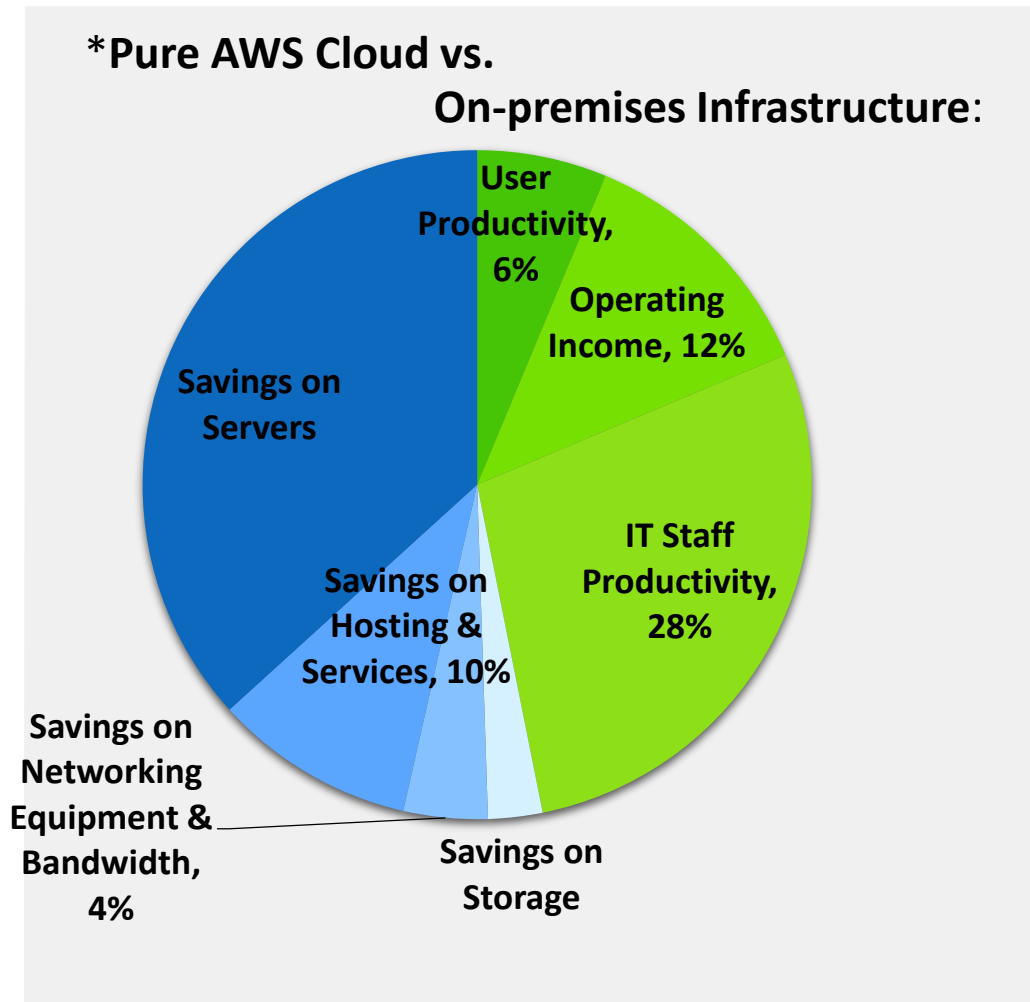


Factors preventing more pervasive usage (current users) or initial adoption (non-users) of cloud computing services. (Percent of respondents, multiple responses accepted)



Source: Cloud Computing – Wave 5 © 2013 451 Research

How businesses save money with cloud?

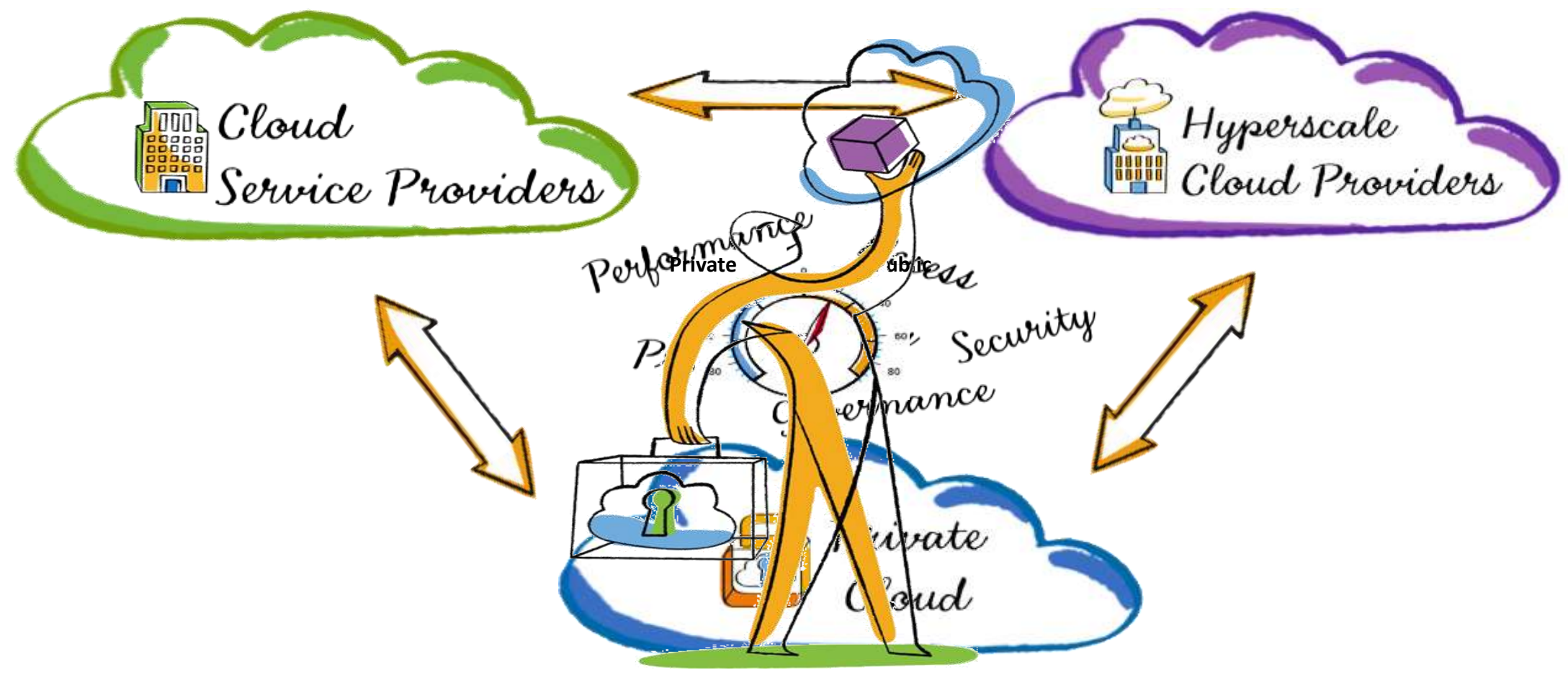


- Most cloud savings vs. on-premises are in the compute layer
- Savings are only half of the benefits customers receive from cloud
- Other benefits include: increased innovation, profits, and productivity

*Source: Total Economic Benefits of AWS by IDC, sponsored by AWS in 2012

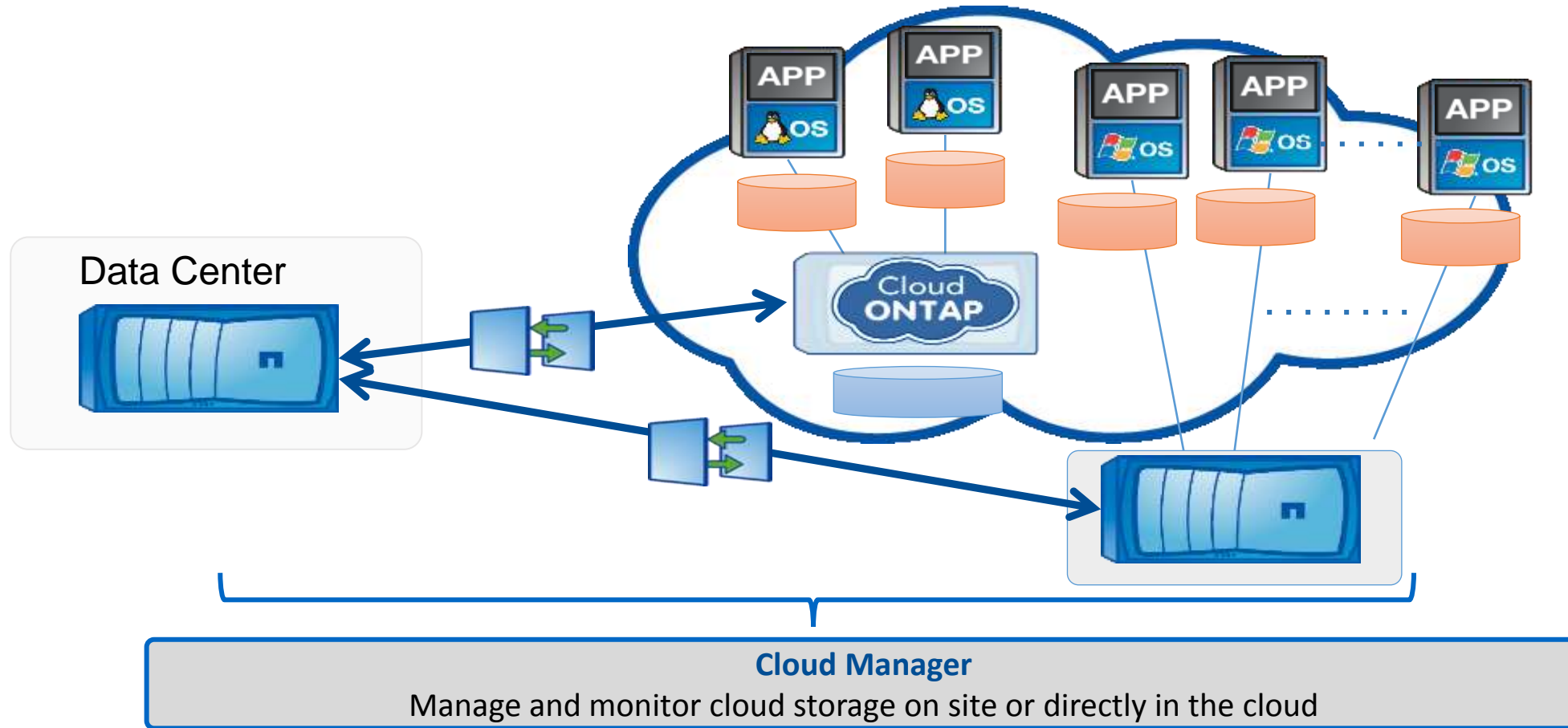
Needed: seamless cloud services

But hybrid data centers are difficult



Key customer challenge: integrate public resources while retaining control

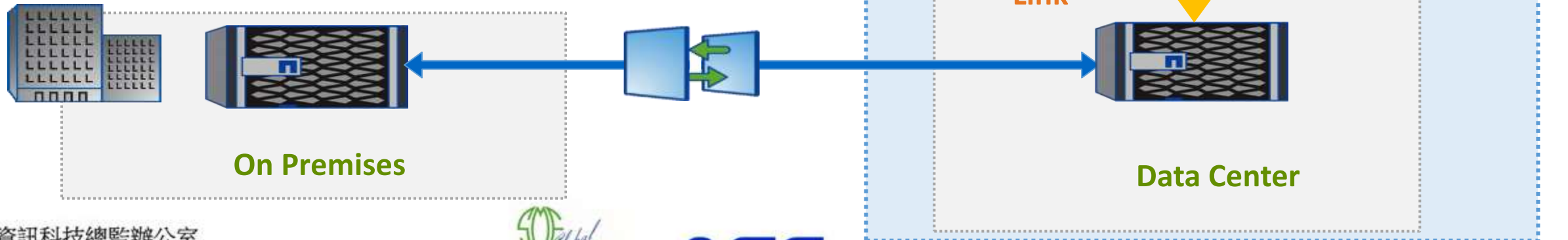
From data center to cloud: Cloud ONTAP



Cloud benefits, enterprise storage

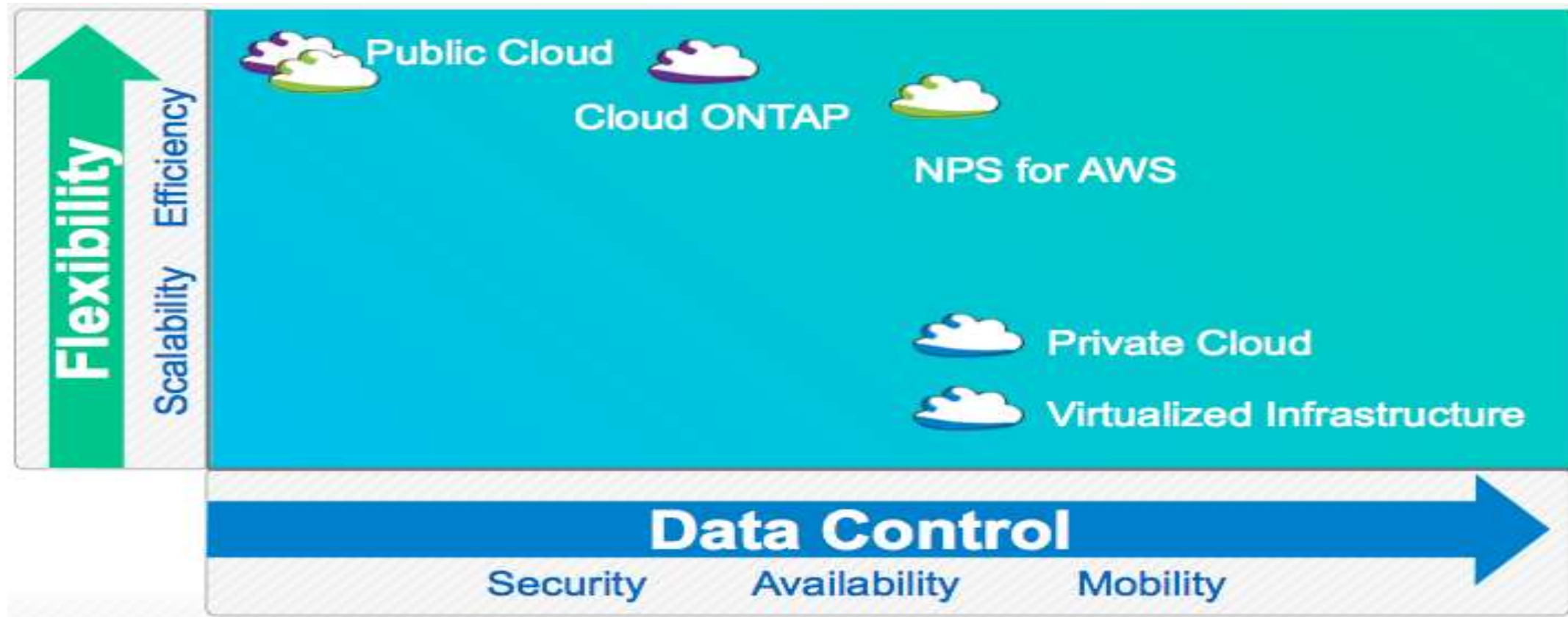
Maintain complete control of your data with NetApp Private Storage (NPS)

- Secure, high-performance integration between NetApp and many clouds
- Add new clouds, switch clouds in minutes without moving data
- Seamless data mobility between premises and NPS for Cloud



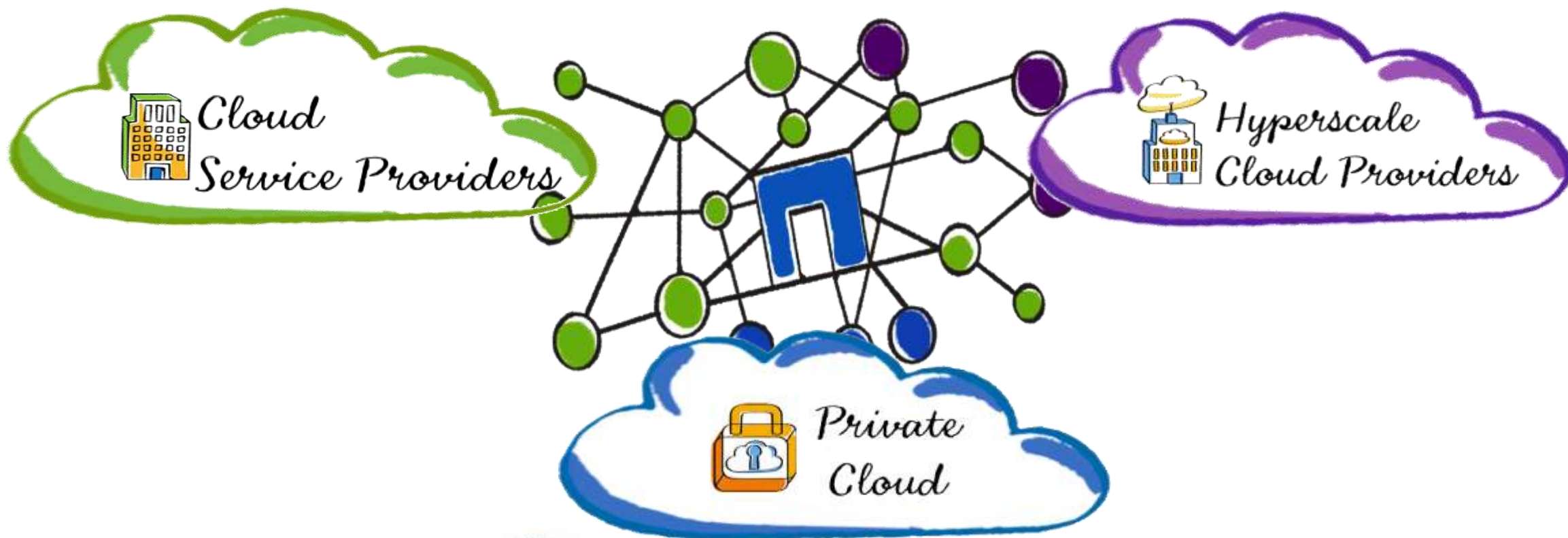
Benefits of Cloud ONTAP and NPS

Most cloud solutions require a tradeoff between flexibility and control.
Both NPS for cloud and Cloud ONTAP give you more of both.



Seamless connections between cloud resources

NetApp is the only major storage vendor to offer a cloud data fabric and a common data platform that provide seamless connections between cloud resources.



Positioning the right application environment

Workload characteristics to help choose which application environment best fits your applications.

App Location	Application Properties and Benefits
On Premises	Application usage pattern and resource requirements are well known with longer term usage
Near the Cloud	Application has high governance requirements and/or high performance and capacity but with variable usage patterns
In the Cloud	For new or unknown application requirements or applications with rapid deployment of storage requirements to accommodate varied workloads

Top use cases for sales & marketing

- Cloudburst for peak workloads
- Enterprise workloads
- Disaster recovery
- Development and test
- Multiregion application continuity
- Data center migration and consolidation
- Performance business apps/data analytics



Data
Stewardship

Cloud bursting and disaster recovery (DR)

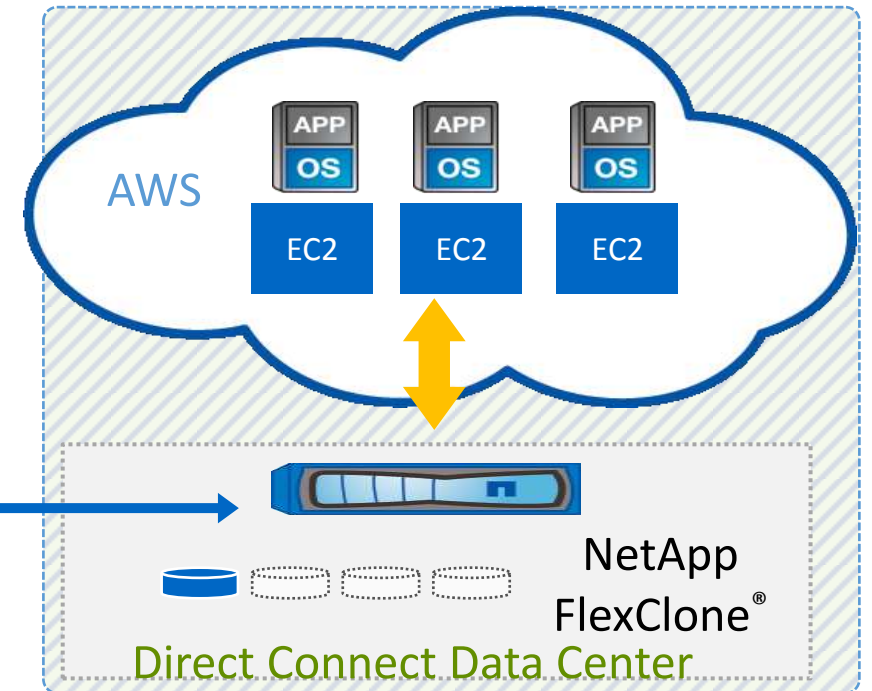
• Best-in-class hybrid cloud



- Red Hat OpenStack and NetApp® hybrid cloud solution
- NPS for AWS hybrid cloud solution for cloud bursting and disaster recovery
- Red Hat CloudForms for seamless management
- Typhoon simulation, other HPC workloads
- Up to 30% cost savings, data control
- Red Hat Innovation Award 2014—**1st win in ASEAN**



High-Performance Computing Center (HPCC)



Enterprise workloads: SharePoint and SQL

- Oakland County responds to funding cuts

“Our relationship with Blue River has changed the way we look at our future.”

— Phil Bertolini,
 Deputy County Executive/CIO



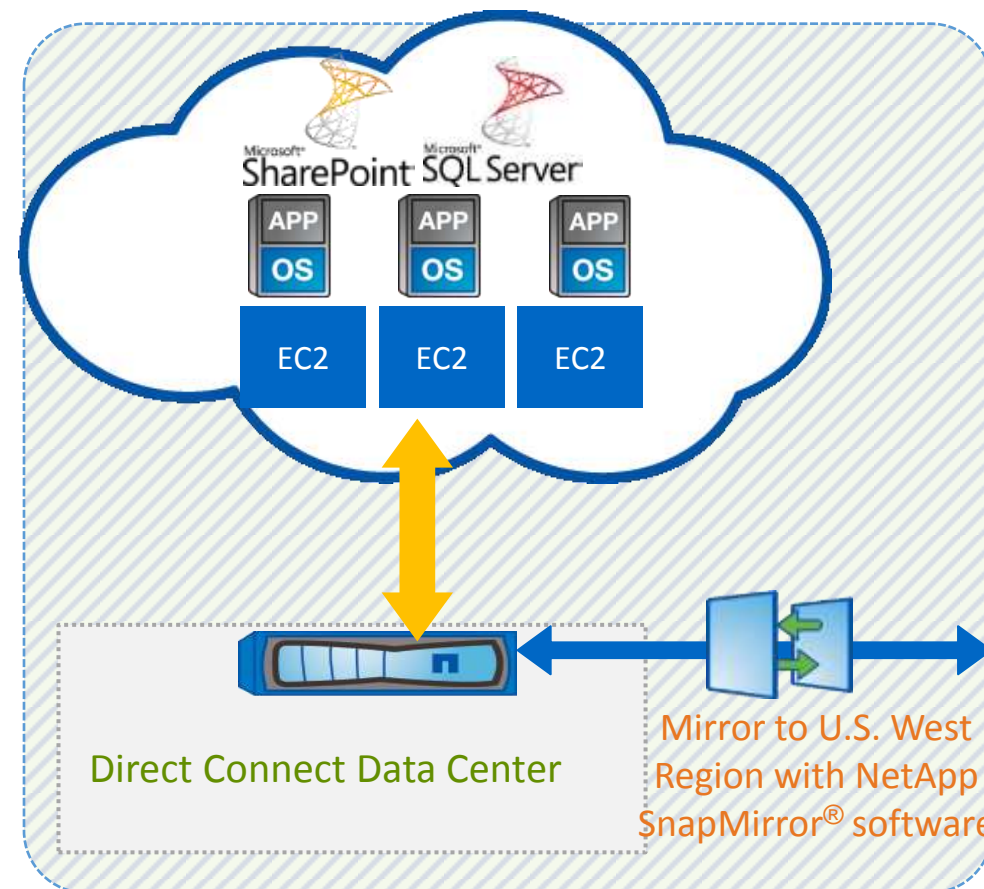
G2G Cloud for Oakland

Microsoft Windows SharePoint Services and DR to start

AWS scalability with performance & data control of NetApp technology

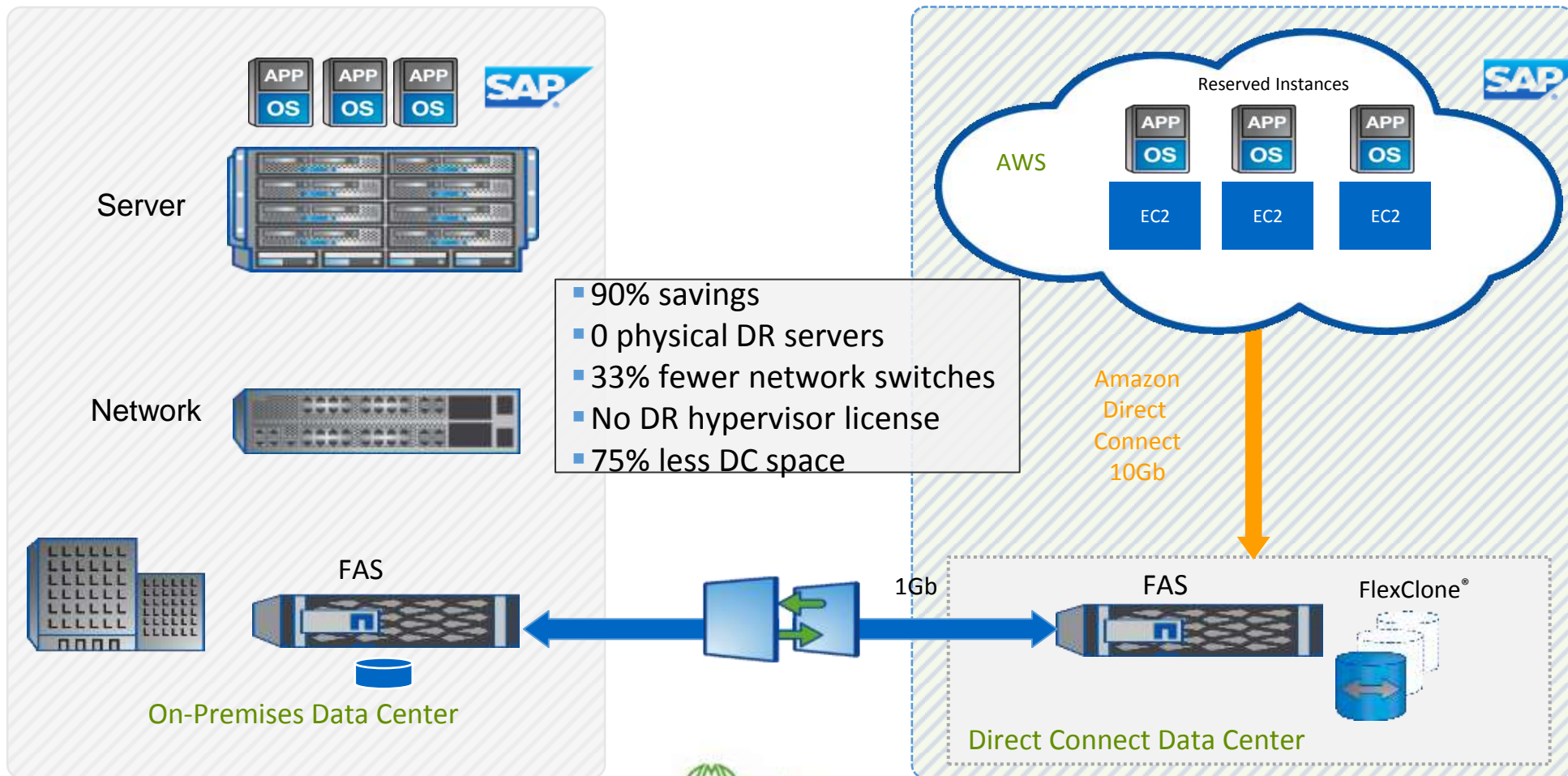
Managed by Blue River

Blue River
 INFORMATION TECHNOLOGY



Disaster recovery for ERP

- Midsize Manufacturing Company

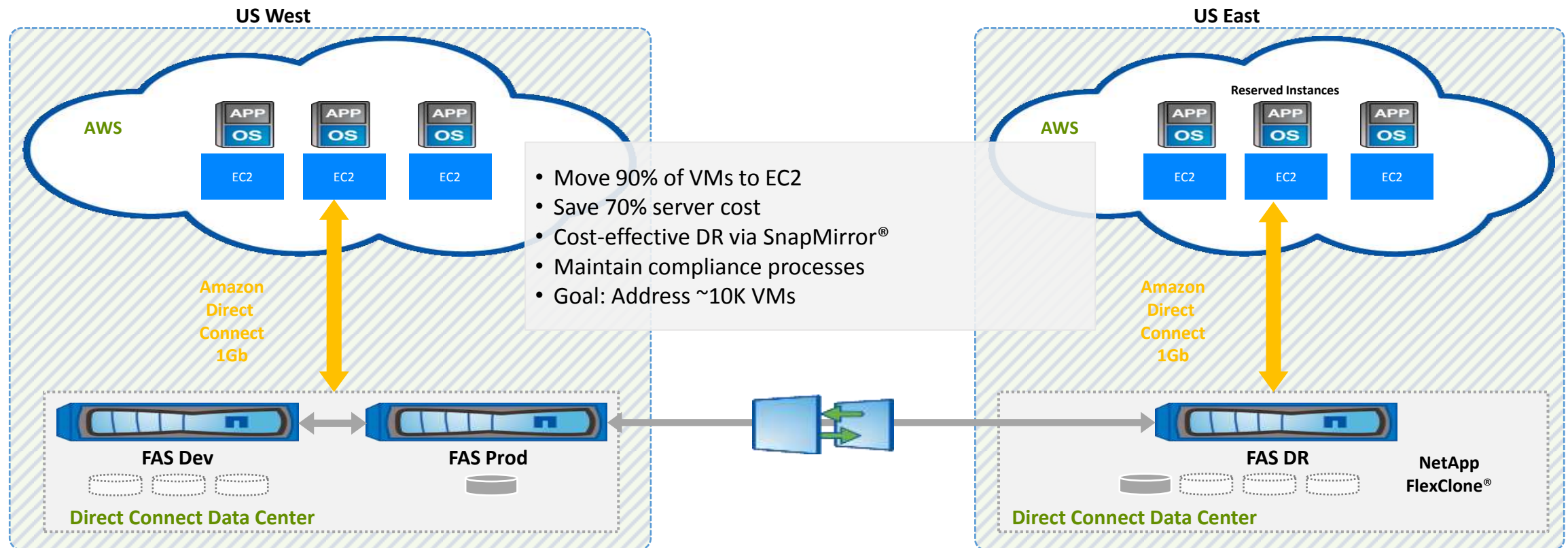


- 90% savings
- 0 physical DR servers
- 33% fewer network switches
- No DR hypervisor license
- 75% less DC space

1. Critical data is replicated to NetApp in Equinix
2. Reserved instances are set up in AWS
3. Failure occurs at on-premises site
4. Bring up VM instances in AWS and connect to data on NetApp in Equinix

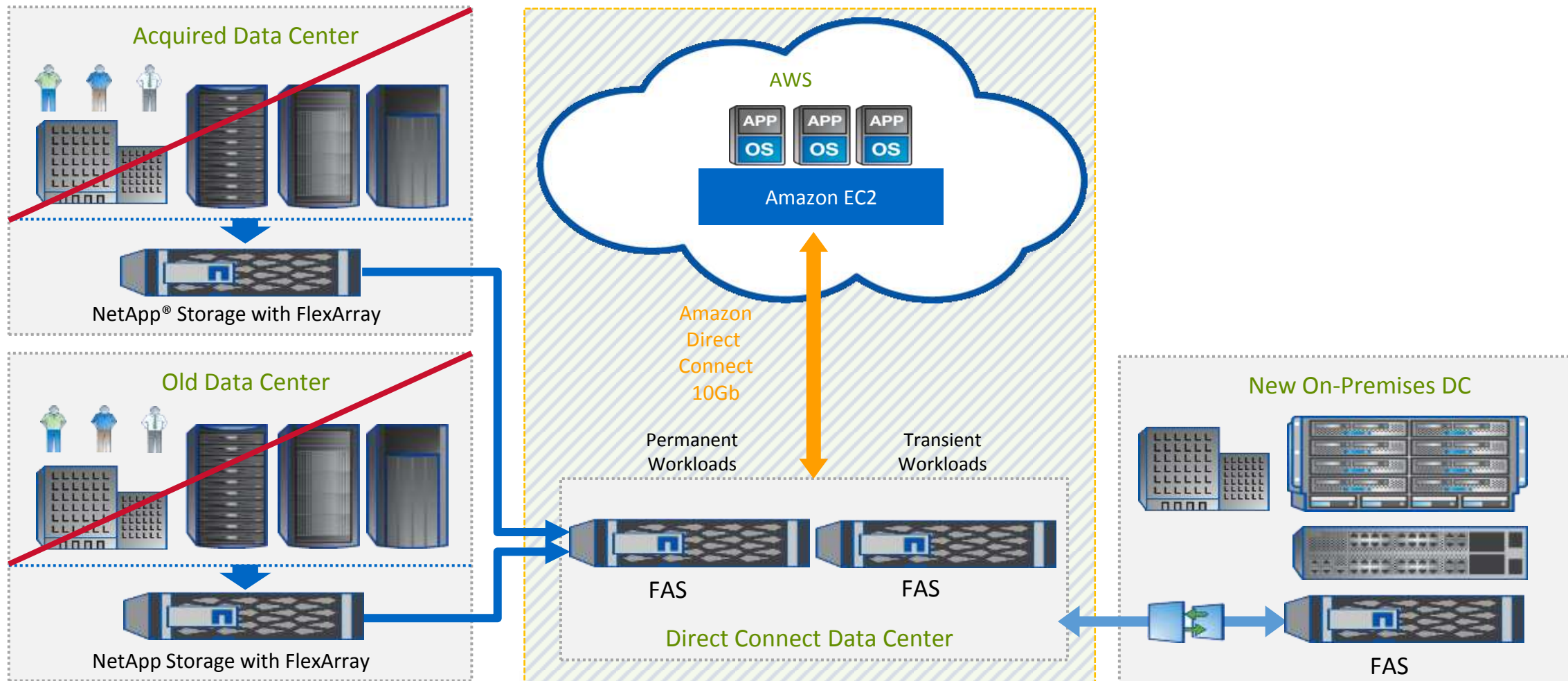
Dev/test, production, and multiregion DR

- Financial SW Co. Gains Efficiency for Payroll App
- "90% of the Benefits of Public Cloud with 10% Risk" – Architect



Consolidation M&A

- Multinational Manufacturing and Financial Services Company



Thank you

