

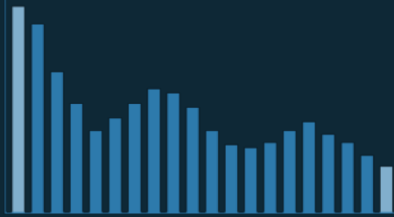
# The Shifting and Dissolving Boundaries between On-Premises and Cloud

Nathan Wheat, Partner Success Manager - AWS

13 March 2019



# Accelerating pace of change



The average lifespan of an S&P 500 company dropped from 60 years in the 1960s to 15 years today



Over ½ of New Project Budgets\* (\$413 BN USD) will go to building technologies to help win, serve and retain customers vs running existing operations.



84% of CIOs have responsibilities outside of traditional IT commonly including innovation and transformation. CIO success criteria is shifting from delivery (cost center) to business-based measures (revenue generation)

\* New project budgets are net new investments as opposed to projects designed to provide business continuity

# Accelerating pace of change requires a new model



## FOCUS

on differentiating  
your company.



## INNOVATE

at start-up like  
speed.



## MIGRATE

under your terms.



## REDUCE

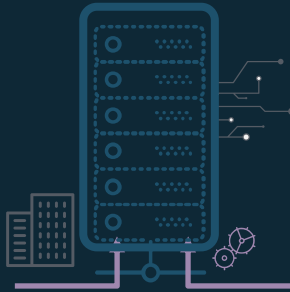
risk.

# Evolving computing landscape

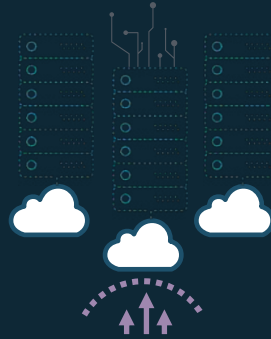
Physical Servers  
in Datacenters



Virtual Servers  
in Datacenters



Virtual Servers  
in the Cloud



## SERVERLESS



*“No server is easier to manage than no server.” – Werner Vogels, 2015*

# And yet...all these things are still with us

*"The future is already here.  
It's just not evenly  
distributed."  
– William Gibson, author*



# Applications driving need for true hybrid cloud



## Existing (Legacy) Applications

Transaction Processing,  
ERP Applications



## Financial Services

High Frequency Trading,  
Exchange Platforms, Core  
Banking



## Low latency Telco Operations

Virtual Network Functions



## Content Production, Distribution & Gaming

Lossless signal ingestion,  
Live Event and Game streaming



## Real-time Inference

Autonomous vehicles, Processing  
outdoor sensor data



## Industrial Automation

Manufacturing, Sensor control,  
Robotics

# On-Premises or Cloud: Architectural impact

Consideration	On-Premises	Cloud	Impact
Cost	Capitalised asset	Operational usage	Projected cost vs accountability
Capacity	Pre-determined	On demand	Peak sizing, waste, growth
Workload scale	Static, or bounded	Always scaling, rapid response, variable	How to cater for overload? Limit traffic, or burst out?
Resiliency model	Infrastructure and/or application	Application, and regions/zones	Avoid failure, or assume it?
Connectivity	Local devices, singular presence	Reliance on external link to provider	Proximity to users, other services
Management Operations	Dedicated administration team	DevOps, complete service ownership	Several teams, or one? Management, tooling, metrics.
App Lifecycle	Closely managed, highly visible processes	Ephemeral/fluid, automated processes	CMDB, or code repository? Restore or recreate?

# Why does the hybrid cloud matter?

Within 4 years, **79% of enterprises** expect to use both on-premises and public cloud infrastructure to meet their data center capacity needs

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- Combine best of both worlds
- Scale infrastructure rapidly
- Leverage consistent infrastructure and skills

Source: Gartner, Michael Warrilow, Rethink Your Internal Private Cloud, August 30, 2018

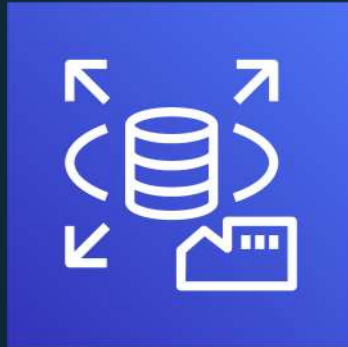


# AWS hybrid cloud infrastructure



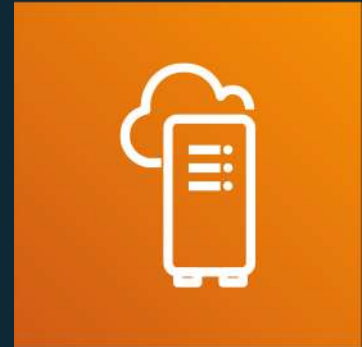
## VMware Cloud on AWS

Migrate and extend  
VMware environments to  
the AWS cloud



## Amazon RDS on VMware

Deploy Amazon RDS  
managed databases in on-  
premises VMware  
environments



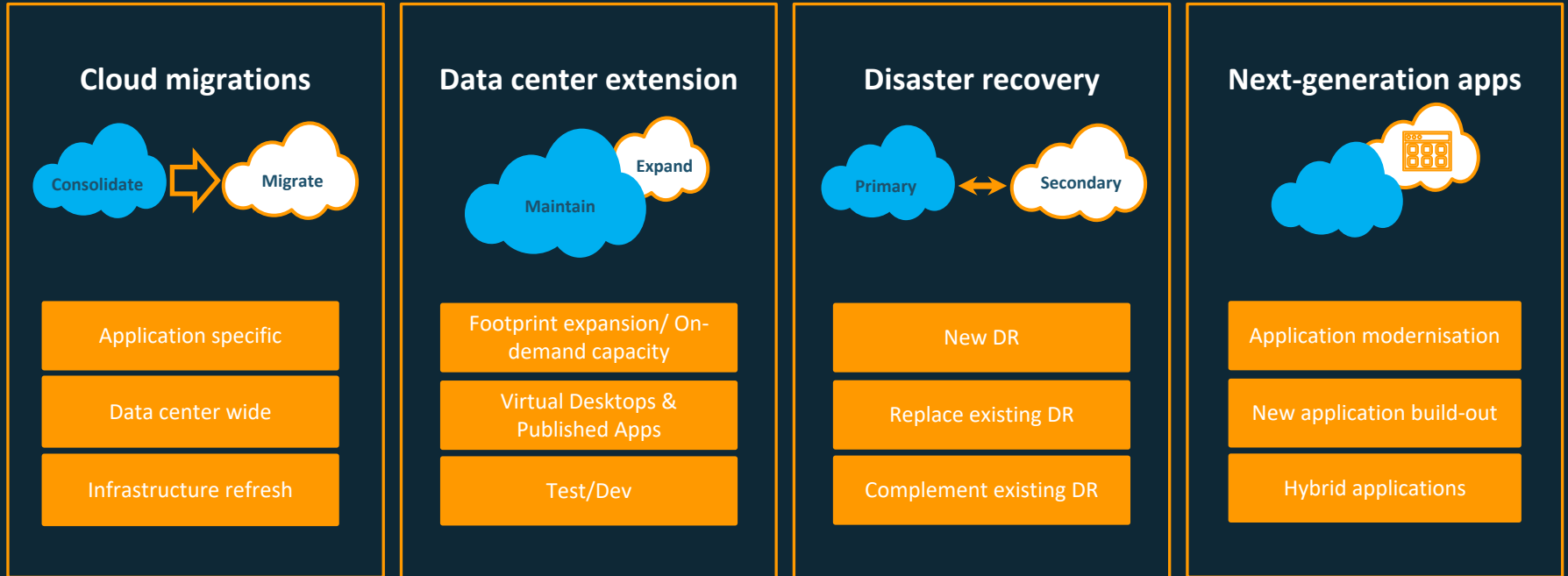
## AWS Outposts

Run AWS infrastructure on-  
premises for a truly consistent  
hybrid experience

# VMware Cloud on AWS is engineered for a seamless customer experience



# Customer-driven use-cases



# Broad adoption across every industry

Shutterfly



MERCK

Whirlpool  
CORPORATION

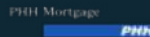


claranet



George Sink P.A.  
ENERGY LAWYERS

LANSING



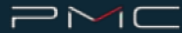
accenture



HCL



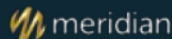
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fiserv.



CAL STATE EAST BAY

DELL Technologies

FUJITSU



Capgemini



GENPRO



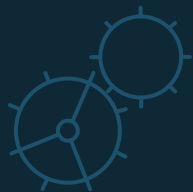
otto group



ZENRIN DataCom



## Managed Service for On-Premises Databases



Automate Management of  
On-Premises Databases



Hybrid Cloud Backups and  
Scaling



Migrate Databases to  
AWS

# Hybrid Cloud: AWS Outposts

Announced

AWS coming to a data center near you in two ways

vmware

Run VMware Cloud on  
AWS locally on Frontier  
using same VMware  
software



aws

Run EC2 instances and EBS  
volumes locally with same  
APIs and AWS control plane

AWS DESIGNED HARDWARE

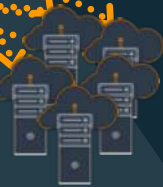
The same that we run in our own data centers



# Extension of AWS Region

**AWS Region**  
(N. California)

**AWS Outposts**  
Sacramento



**AWS Outposts**  
Los Angeles



**AWS Outposts**  
Houston



# AWS infrastructure in any datacenter



Fully integrated and fully managed AWS infrastructure

Security, Performance & Power of the Nitro system

Automatically monitored, updated and patched as part of AWS regions

Native access to rest of AWS services

Less maintenance,  
patching, refreshing



More experiment,  
iterate, innovate



# Summary

## Hybrid Cloud Driven by Application Needs

More on-premises existing applications are moving to the cloud.

Emerging applications require low latency compute near end users and at the edge.

## Build Once, Deploy Anywhere

Use fully featured AWS Outposts services to run applications locally.

Use current application architectures in on-demand service with VMware Cloud on AWS.

## One Management Plane

Use VMware or AWS management tools and processes for a single consistent enterprise-wide environment.

## Fully Managed AWS infrastructure

Now get the same same security, performance, and reliability anywhere with minimal maintenance.

# How can you get ready for the hybrid cloud?

1

## Understand

how AWS native and hybrid offerings will fit into your cloud adoption strategy.

2

## Get your business ready

to maximize the benefits of cloud.  
Talk to us about AWS rapid migration and deep transformation.

3

## Get started today

with AWS by trying out our services for yourself using low cost trials.