

# VMware: Building a Digital Foundation from the Cloud to the Edge

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Director Systems Engineering  
Northern EMEA





Traditional Business

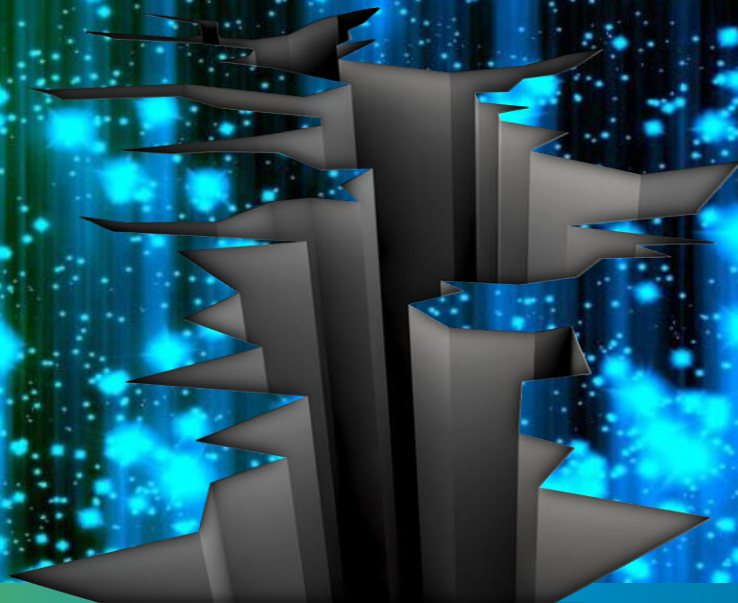


Digital Business



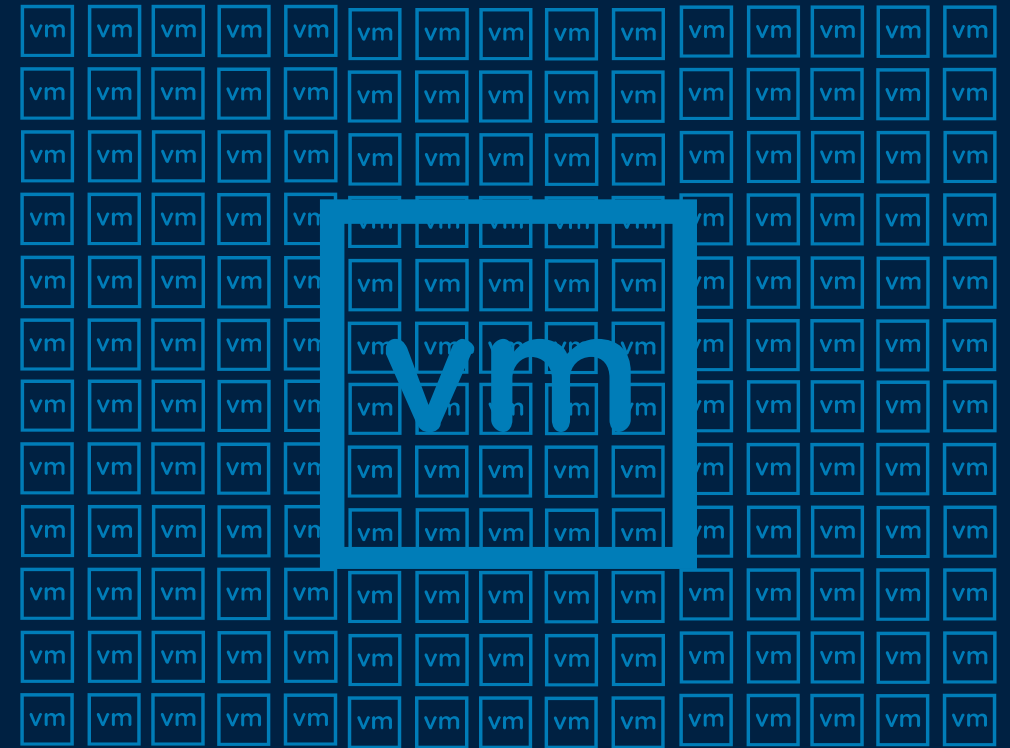
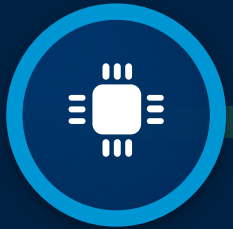


# Abstracting and Bridging Silos of Innovation





# Server Virtualization



TCO Savings from  
vSAN adoption

Reduction in  
complexity of tasks

Over a 5 year  
period from HCI

CAPEX  
40%

OPEX  
58%

ROI  
619%

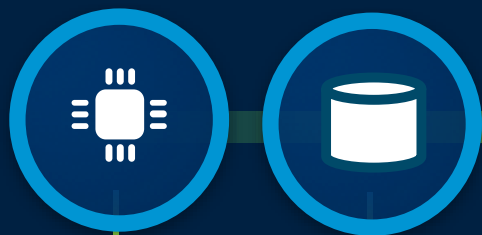
15,000 +  
Customers

37%  
Share

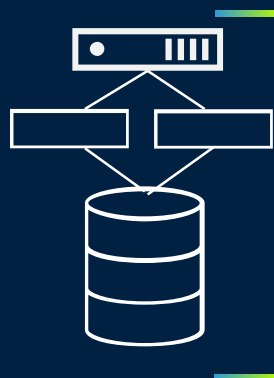
500+  
Cloud  
Partners

2  
Public Clouds:  
AWS & IBM

# Server, Storage Virtualization



Hyper-Converged  
Infrastructure



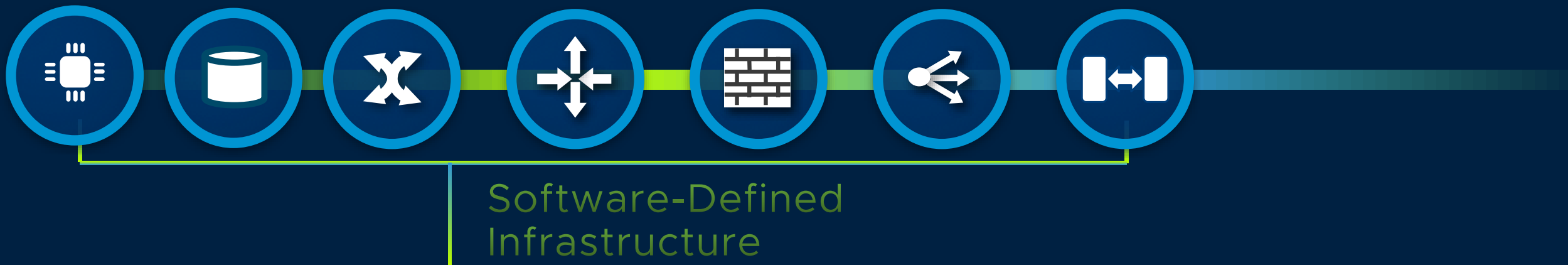


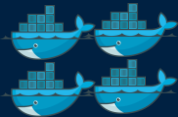
Cloud Networking Fabric

Intrinsic Security

Network Delivered in Software

# Server, Storage, Networking Virtualization





## Mgmt & Automation

## VMware Cloud Foundation



vSphere



vSAN



NSX



Life Cycle Automation





vmware vRealize™ Automation®

Catalog Deployments Design Inbox Administration Infrastructure Containers

Catalog 22 items On behalf of: Search users

Search for catalog items by name or description Sort: Name (ascending)

Ansible - CentOS with Apache

Use this blueprint to deploy the CentOS 7.3 Master template to vSphere. Includes Open VMTools and App

Business group cmbu-auto-bg. 1 more

Service PaaS Catalog

REQUEST

AWS EC2 - Ubuntu 16.04

Deploys a Ubuntu 16.04 VM in AWS EC2

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

AWS EC2 - Windows 2016 + Containers

Deploy a Windows 2016 instance to EC2 with Container Support

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

Azure - Ubuntu 16.04

Deploys a Ubuntu 16.04 Virtual Machine to the US-West region in Microsoft Azure

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

Azure - Windows 2016

Deploy a Windows 2016 Build To Microsoft Azure

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

Cassandra

This is a Single-Tier deployment for Cassandra 3.11.2-6. Cassandra blueprint published by Bitnami is secure, up-to-

Business group cmbu-auto-bg. 1 more

Service PaaS Catalog

REQUEST

CentOS 7.3

Use this blueprint to deploy the CentOS 7.3 Master template to vSphere. Includes Open VMTools and App

Business group cmbu-auto-bg. 1 more

Service IaaS Catalog

REQUEST

Create a User Account

Creates a user in an organizational unit and sets a password for the user. The password can be changed at

Business group cmbu-auto-bg. 1 more

Service IT Automation

REQUEST

Create GCE Instance

Creates a VM Instance resource in GCP.

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

Create Google Storage Bucket

Create a Storage Bucket in GCP

Business group cmbu-auto-bg. 1 more

Service Public Cloud

REQUEST

Drupal

This is a Single-Tier deployment for Drupal 8.5.3-3. Drupal blueprint published by Bitnami is secure, up-to-date, and

Business group cmbu-auto-bg. 1 more

Service PaaS Catalog

REQUEST

GitLab

GitLab Community Edition by Bitnami is a pre-configured, ready to run Single VM Blueprint for running GitLab

Business group cmbu-auto-bg. 1 more

Service PaaS Catalog

REQUEST

Jenkins Cluster

This is a Multi-Tier blueprint for Jenkins Cluster 2.104.0-0.

Kubernetes 1.10 on Ubuntu

Deploys a Kubernetes Cluster on Ubuntu with 2 Masters

LAMP

This is a Single-Tier deployment for LAMP 7.118-1 LAMP

MongoDB

This is a Single-Tier deployment for MongoDB 3.6.5-0. Monc

Virtual  
Machines

Micro-  
Services

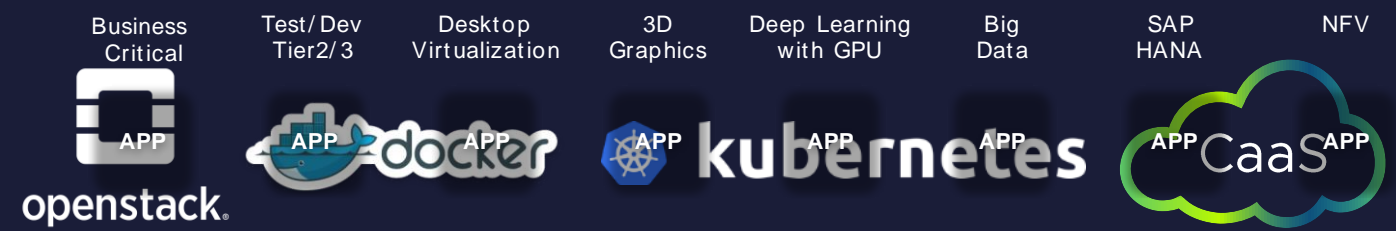
Containers

DevOps

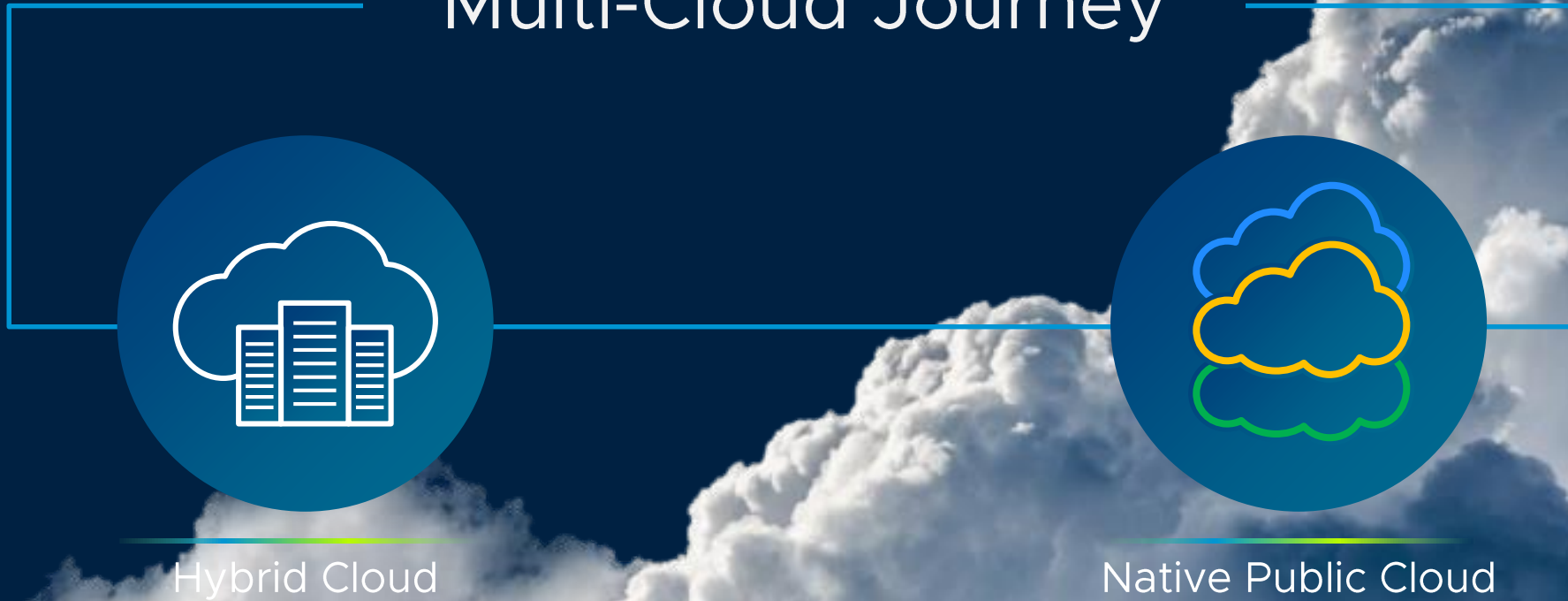
Docker

Continuous Delivery

# Universal App Platform

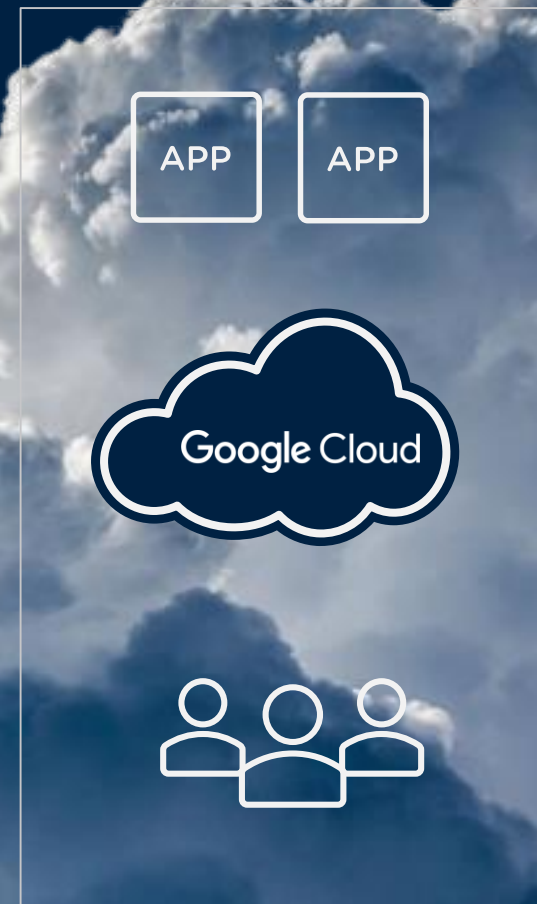
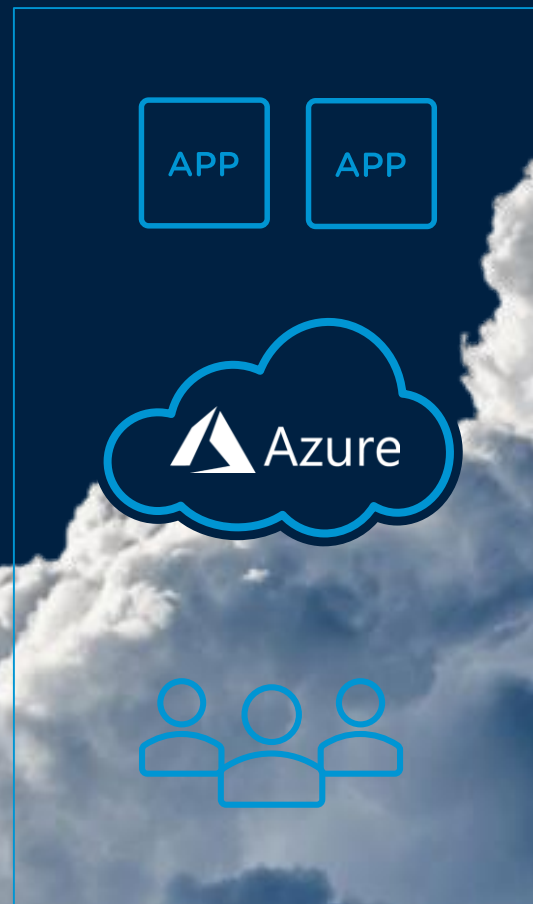
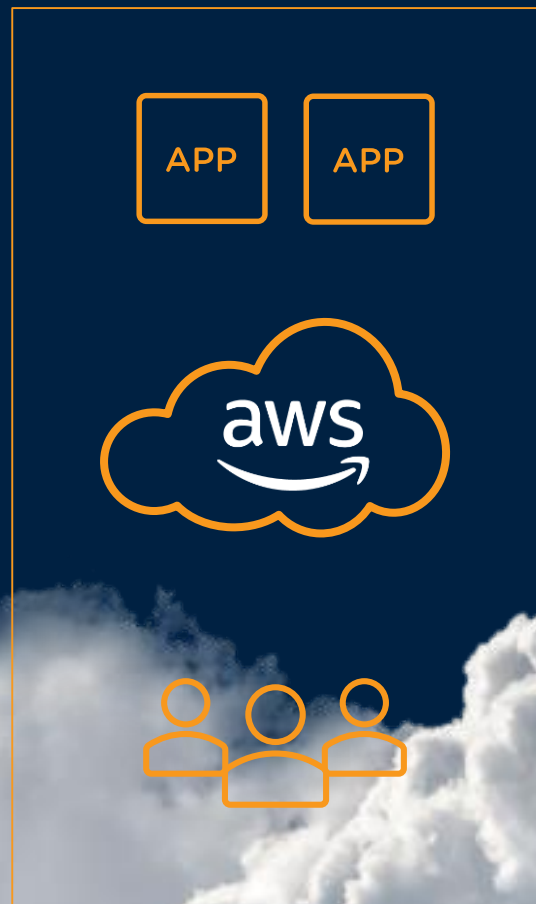


# Multi-Cloud Journey



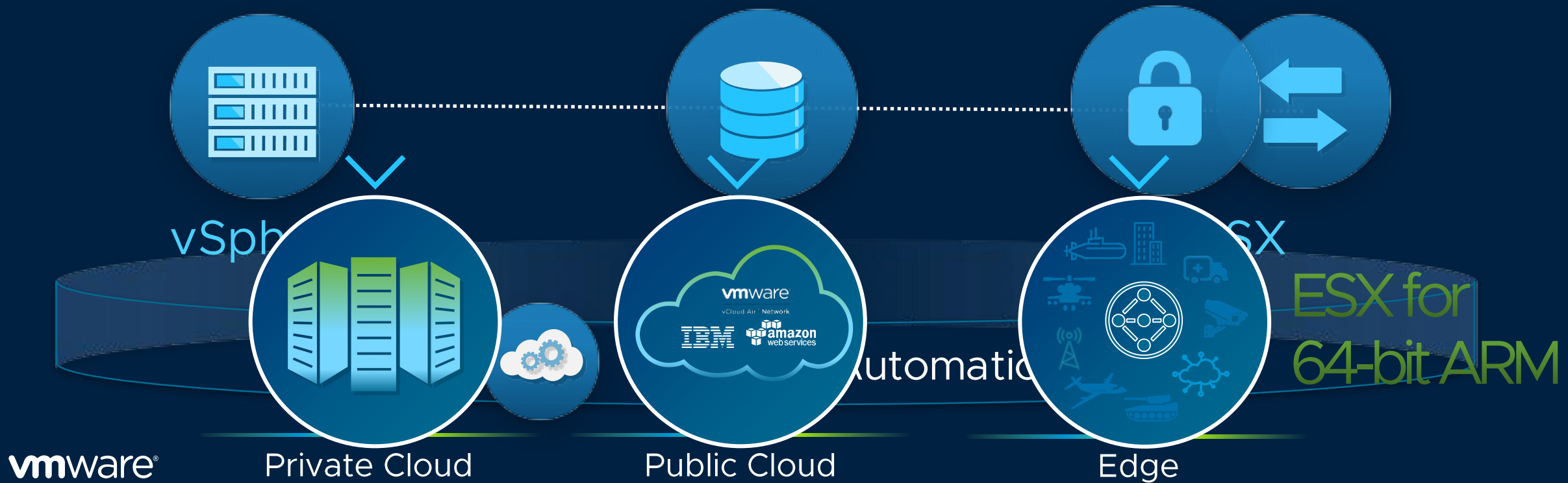


# Consistent Infrastructure, Operations and Security



# Operating System for DCs, Clouds and Edges

## VMware Cloud Foundation



# Hybrid Cloud

Data Center to Cloud to Edge



Private Cloud



Public Cloud

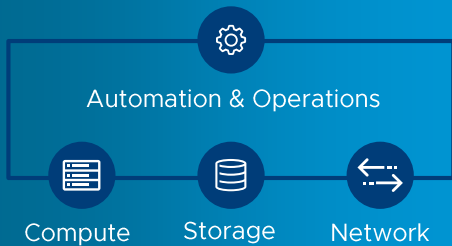


Edge

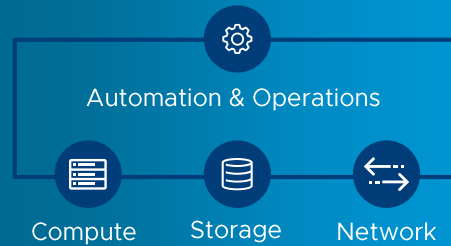


Public Cloud

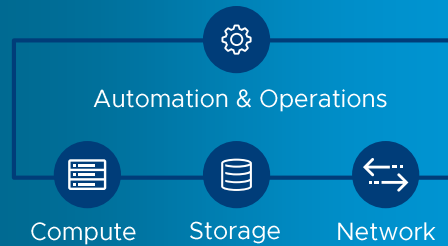
VMware Cloud Foundation



VMware Cloud Foundation



VMware Cloud Foundation



Hybrid Cloud – Consistent Infrastructure

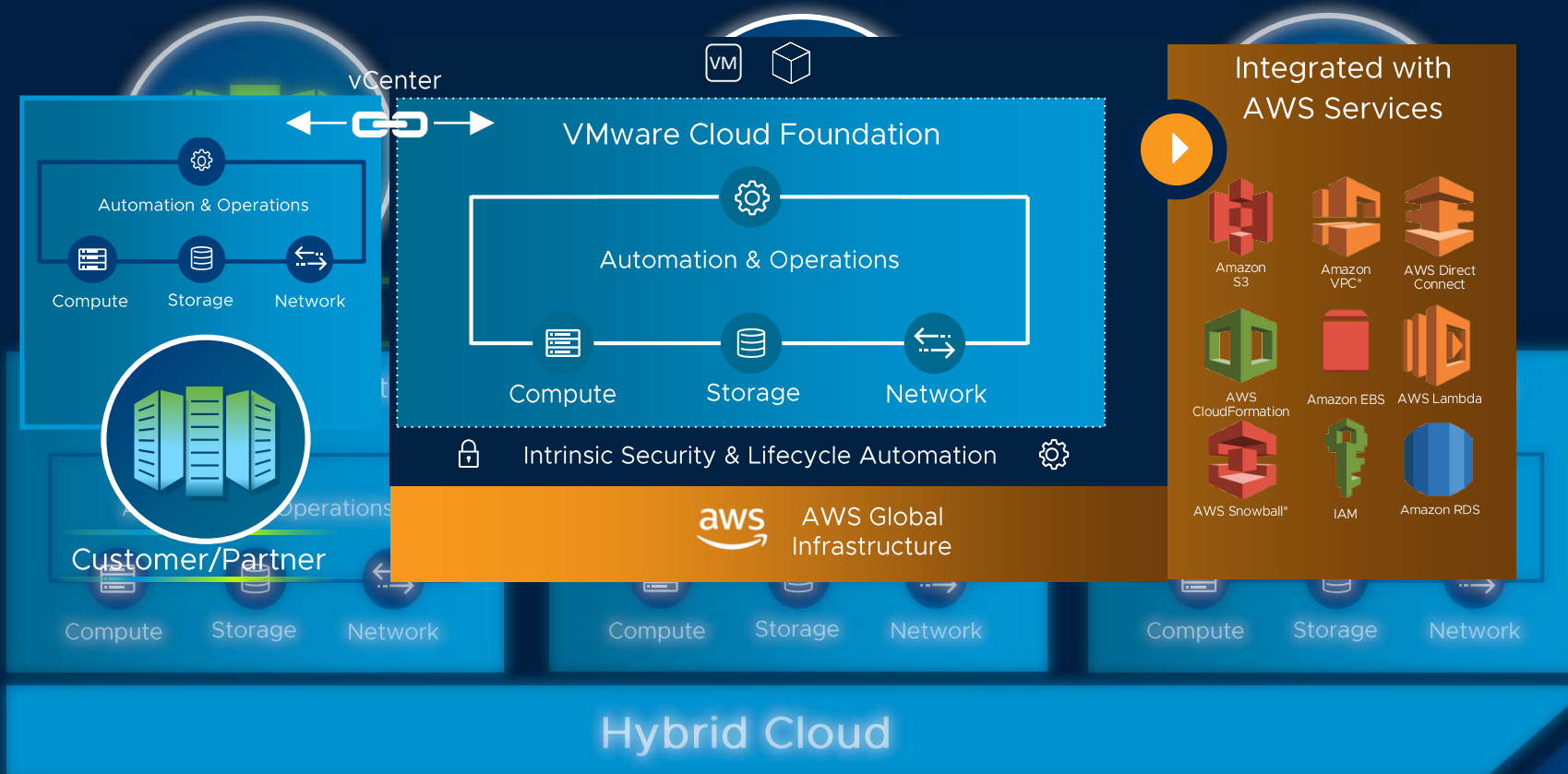


Native Public Cloud



# VMware Cloud on AWS

Extending the Datacenter to AWS Global Cloud and AWS Services



Rich VMware SDDC delivered as a cloud service on AWS

Sold, Operated and supported by VMware

Consistency and workload portability between on-prem Public Cloud

Leverage existing tools ecosystem and solutions

Direct access and integration of native AWS services

AWS Services on-premise Native Public Cloud

# Use Cases for Broad Range of Cloud Strategies



## Cloud Migration

Application-specific migration  
Infrastructure refresh  
Data Center-wide migration



## Data Center Extension

Disaster recovery  
On-demand capacity  
Footprint expansion



## Next-Generation Apps

Application modernization  
New application build-out  
Hybrid applications



Stagecoach

CERIDIAN



# What's coming: VMware Cloud at the DC and Edge

Deliver VMware Cloud Simplicity to data center and edge

The screenshot displays the VMware Cloud Services interface. On the left, a sidebar shows a navigation menu with icons for cloud, location, and user management. The main content area is divided into two sections. The top section, titled 'Locations', lists several locations with their respective alert counts: NA warehouse #133 (5 critical alerts, 4 warnings), NA plant #149 (4 critical alerts, 1 warning), NA plant #150 (1 critical alert), CBG warehouse #107 (2 warnings), and several CBG warehouses and plants. The bottom section, titled 'NA warehouse #133', provides a detailed view of this location. It includes a 'Summary' tab, a 'Resource Usage' section showing CPU (91%), Memory (72%), and Storage (64%) usage, and an 'Alerts' section listing three critical alerts: 'Intermittent network connectivity', 'CPU capacity exceeded', and 'Insufficient failover resources'. The interface also features a user profile for Samantha Taylor and a 'VXRAIL' logo.

vmware Cloud Services

Project Dimension

Locations

- NA warehouse #133  
5 critical alerts, 4 warnings
- NA plant #149  
4 critical alerts, 1 warnings
- NA plant #150  
1 critical alert
- CBG warehouse #107  
2 warnings
- CBG warehouse #108
- CBG warehouse #109
- CBG warehouse #110
- CBG plant #226
- CBG plant #227
- CBG plant #228
- CBG plant #229

NA warehouse #133

Summary Resource Usage Network Applications Maintenance Tags Contact Info

CPU 91%

Memory 72%

Storage 64%

2 Critical Alerts

Alerts

> Intermittent network connectivity	Network	August 26, 2018 06:36 AM BST
> CPU capacity exceeded	CPU	August 25, 2018 04:45 PM BST
> Insufficient failover resources	SDDC	August 25, 2018 12:32 PM BST

vmware Confidential



Existing Apps  
Cost Management • Security • Reliability • Control

Cloud Native Apps  
Time to market • Innovation • Scale • Differentiation

## VMware Cloud Services

 VISIBILITY  OPERATIONS  AUTOMATION  SECURITY  GOVERNANCE

## Cloud Management & Cloud Networking



Private Cloud



Public Cloud

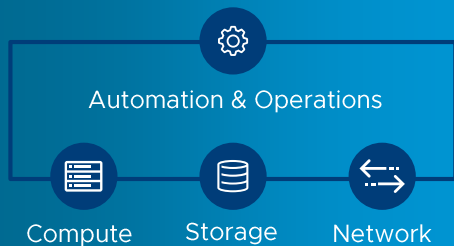


Edge

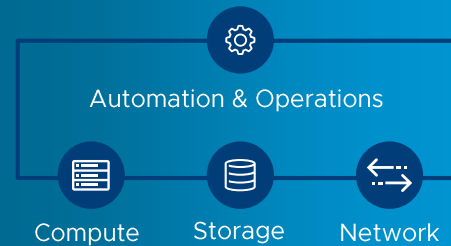


Public Cloud

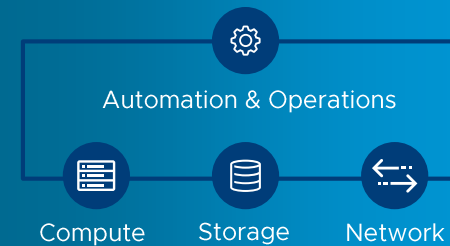
VMware Cloud Foundation



VMware Cloud Foundation



VMware Cloud Foundation



Hybrid Cloud – Consistent Infrastructure

Native Public Cloud

Existing Apps  
Cost Management • Security • Reliability

# Consistent Developer Experience

Cloud Native Apps  
Time to market • Innovation • Scale • Differentiation

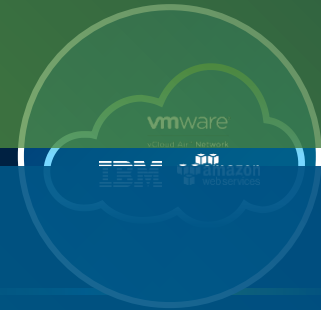
## VMware Cloud Services

- VISIBILITY
- OPERATIONS
- AUTOMATION
- SECURITY
- GOVERNANCE

## Consistent Operations Automation and Operations • Across Clouds



Private Cloud



Public Cloud

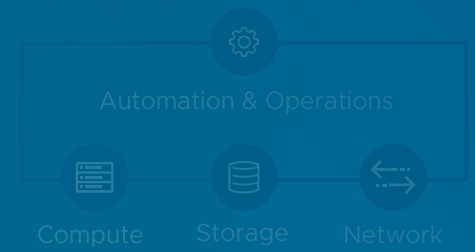


Edge

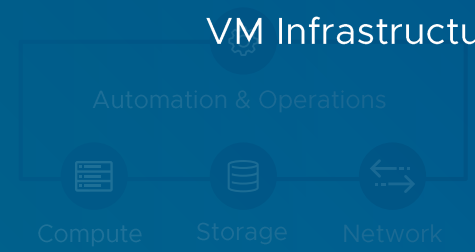


Public Cloud

### VMware Cloud Foundation



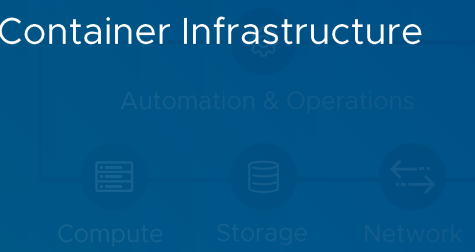
### VMware Cloud Foundation



## Consistent Infrastructure

VM Infrastructure • Container Infrastructure

### VMware Cloud Foundation



## Hybrid Cloud

## Native Public Cloud

# The Pace of Technology Innovation Is Accelerating

Machine Learning



Augmented Reality



Artificial Intelligence



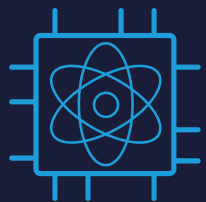
Internet Of Things



Edge



Serverless  
(Functions As A Service)



Quantum Computing



Adaptive Security



Blockchain  
(Distributed Ledger)



Data Analytics



Hardware Acceleration



Digital Twin



# The Pace of Technology Innovation Is Accelerating

Machine Learning



Augmented Reality



Artificial Intelligence



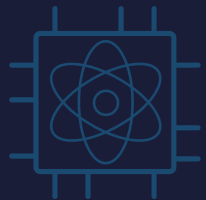
Internet Of Things



Edge



Serverless  
(Functions As A Service)



Quantum Computing



Adaptive Security



Blockchain  
(Distributed Ledger)



Data Analytics



Hardware Acceleration



Digital Twin

# Our Strategy

A software-defined digital foundation built on VMware

## ANY DEVICE



## ANY APPLICATION



Traditional



Cloud Native



SaaS

## ANY CLOUD





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US • LAS VEGAS  
AUG 26-30, 2018

EUROPE • BARCELONA  
NOV 5-8, 2018

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