vForum 2014 - Your Datacenter's Evolution is here

Chris Wolf
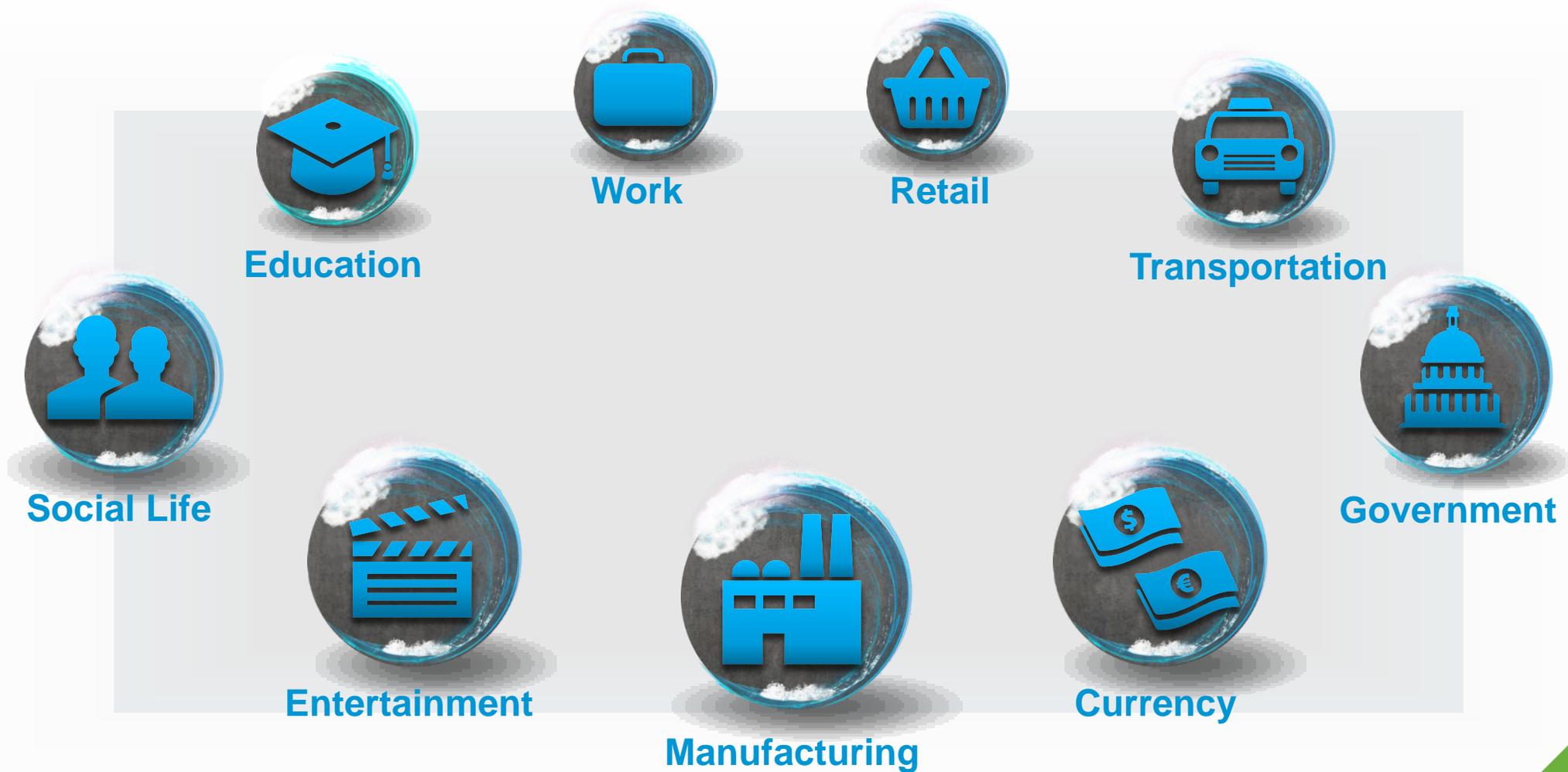
9/14/2014

vmware®

Forward-Looking Statements

This presentation includes forward looking statements that are subject to risks and uncertainties. Actual results may differ materially as a result of various risk factors, including those described in the 10-K's, 10-Q's and 8-K's VMware files with the SEC.

A Liquid World

vmware®

An Increasingly Liquid World

Education

Work

Retail

Transportation

Social Life

Entertainment

Manufacturing

Currency

Government

vmware®

From Rigid Structures to Liquid Business

THEN

NOW

THEN		NOW
Known	**Competition**	Unpredictable
Owned	**Assets**	Shared
Methodical Planning	**Innovation**	Rapid Iteration
Slow	**App Deployment**	Instant
Millions	**Customers**	Billions
"Built to Last"	**Organization**	"Built to Change"

vmware®

Today's Reality: Stuck in Silos

Traditional Apps	**Vs.**	Cloud-Native Apps
IT	**Vs.**	Developers
On-Premises	**Vs.**	Off-Premises
Safe, Secure, and Compliant	**Vs.**	Instant, Elastic, and Self-Service

vmware®

The Power of "AND"

Traditional Apps	**&**	Cloud-Native Apps
IT	**&**	Developers
On-Premises	**&**	Off-Premises
Safe, Secure, and Compliant	**&**	Instant, Elastic, and Self-Service

vmware®

SDDC Delivers Unparalleled Flexibility

Software Defined Data Center (SDDC)	Inter- Data Center	Cloud IaaS
Any Application	Any Application	Any Application

SDDC Platform
Data Center Virtualization

Centralized management

Any x86	Any x86	Any x86

Seamless portability

Any Storage	Any Storage	Any Storage

Unrestricted choice

Any IP network	Any IP network	Any IP network

vmware®

The Path to the Software-Defined Enterprise

End-User Computing

Private Cloud

Hybrid Cloud

Public Cloud

Software-Defined Data Center

vmware®
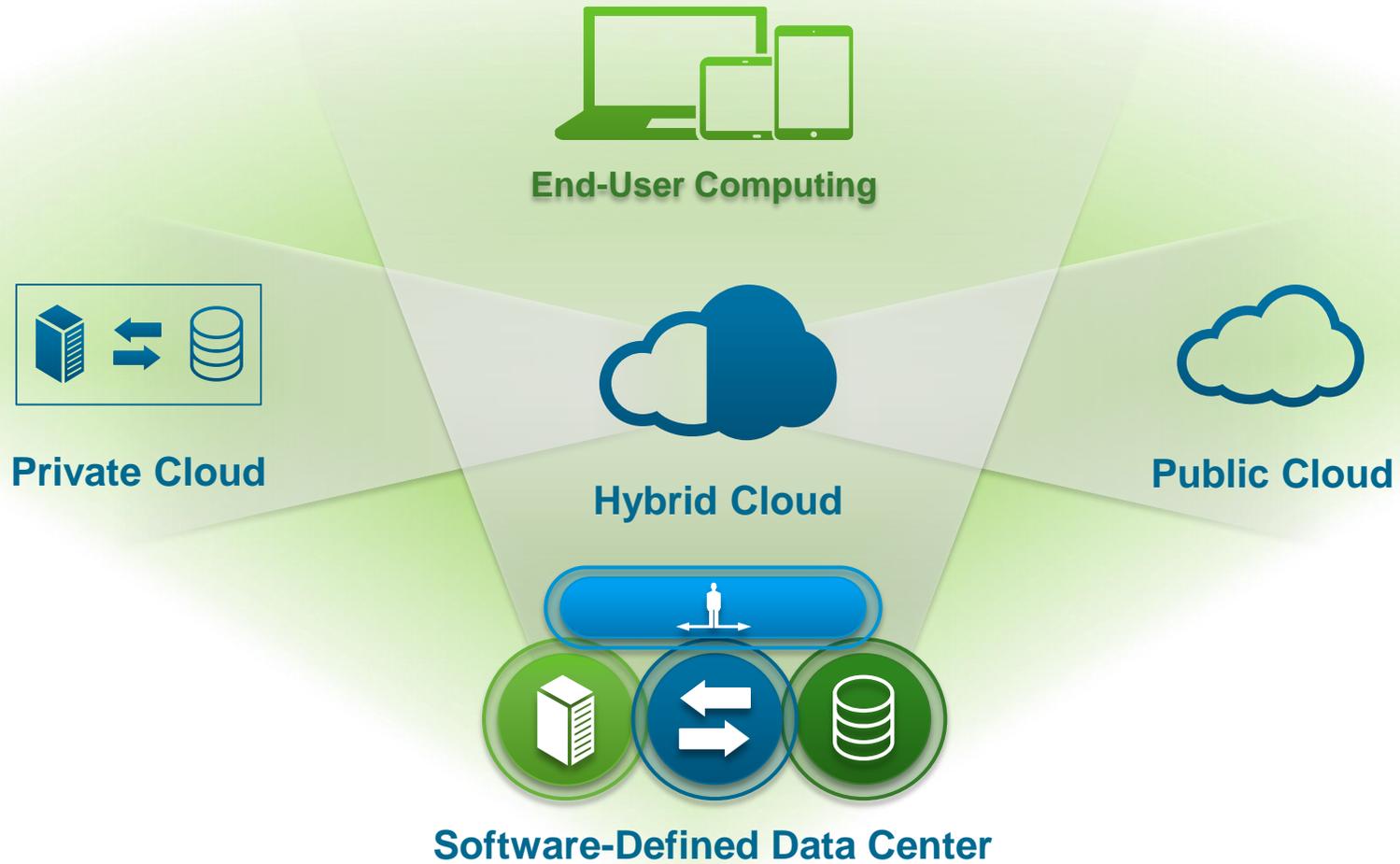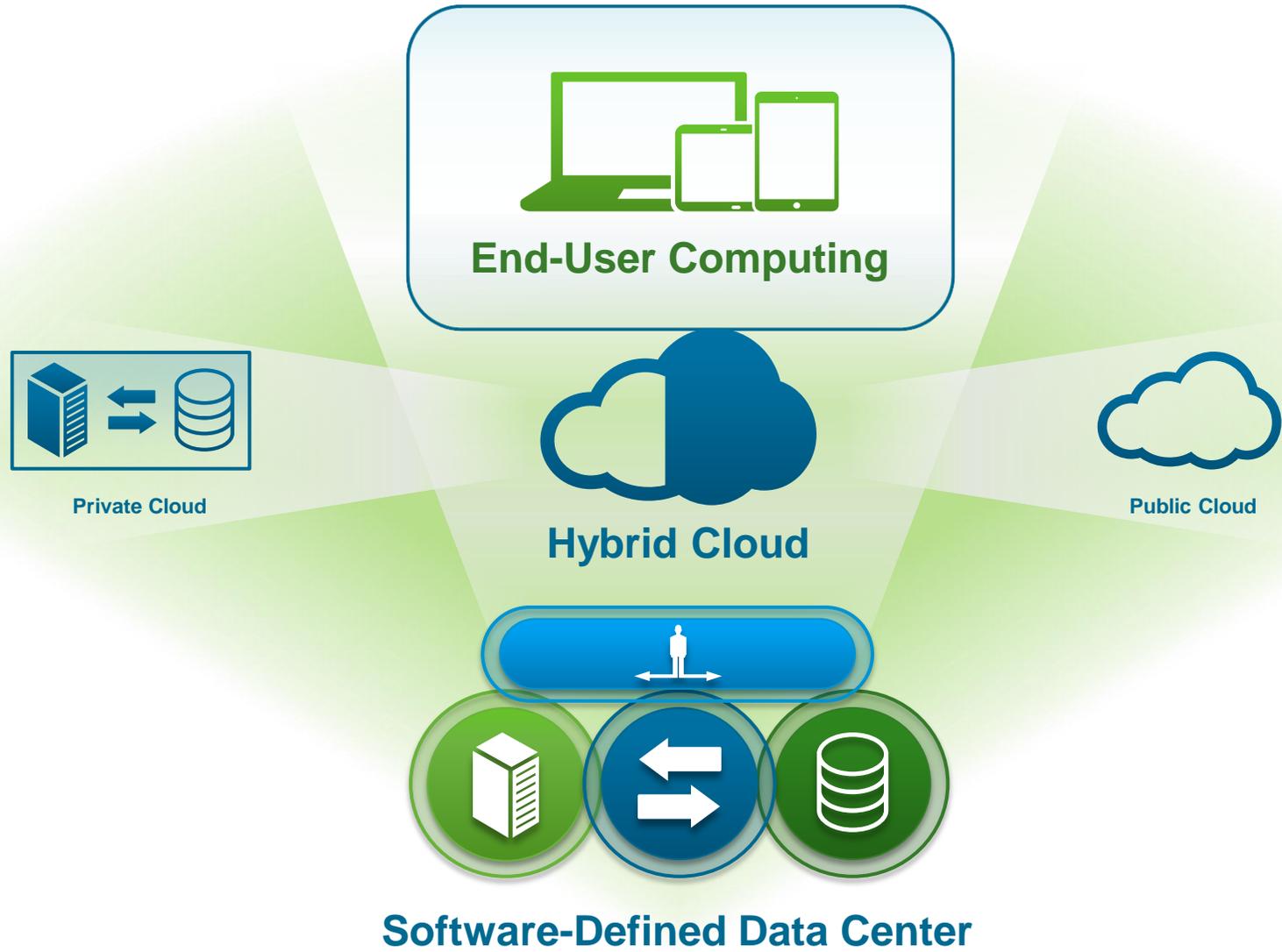
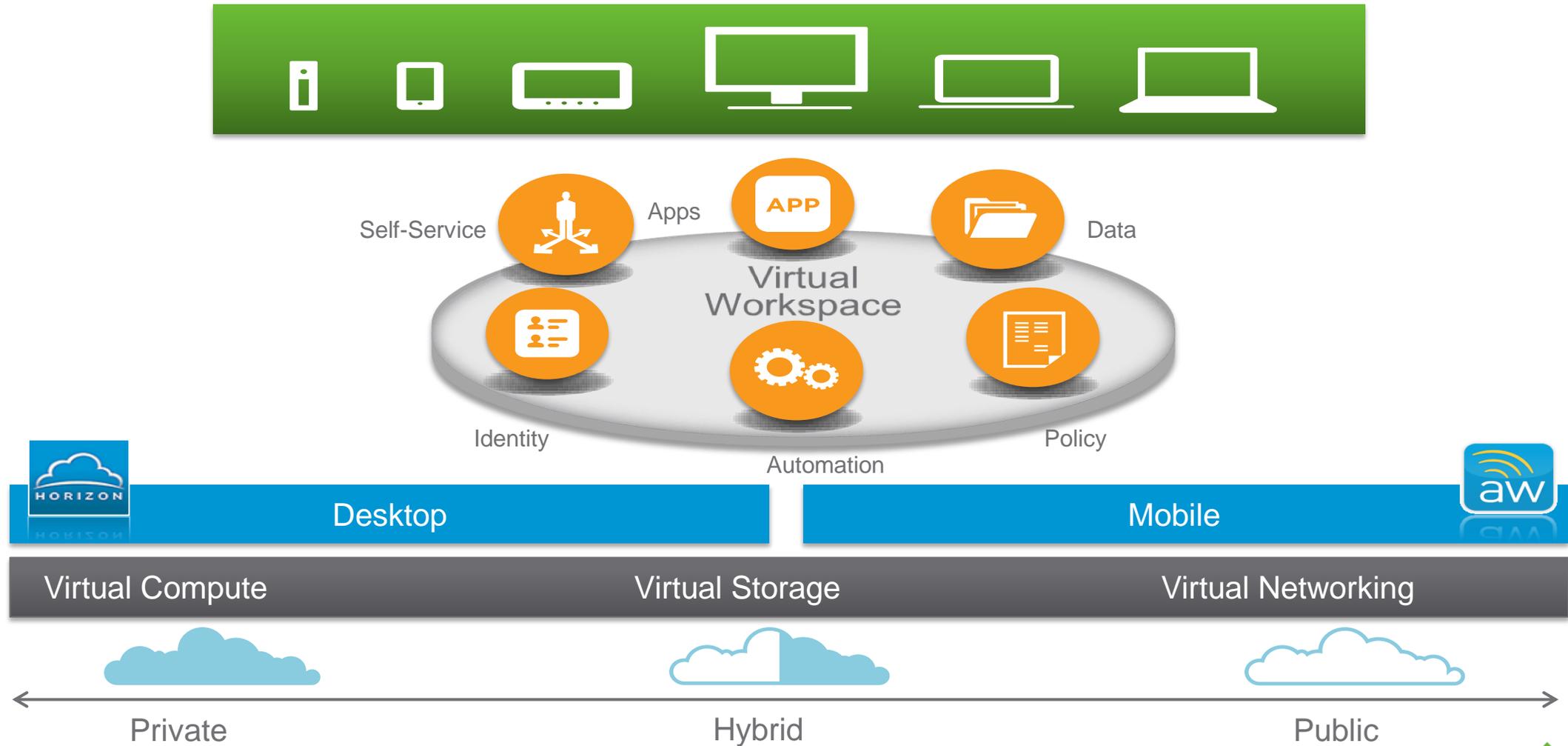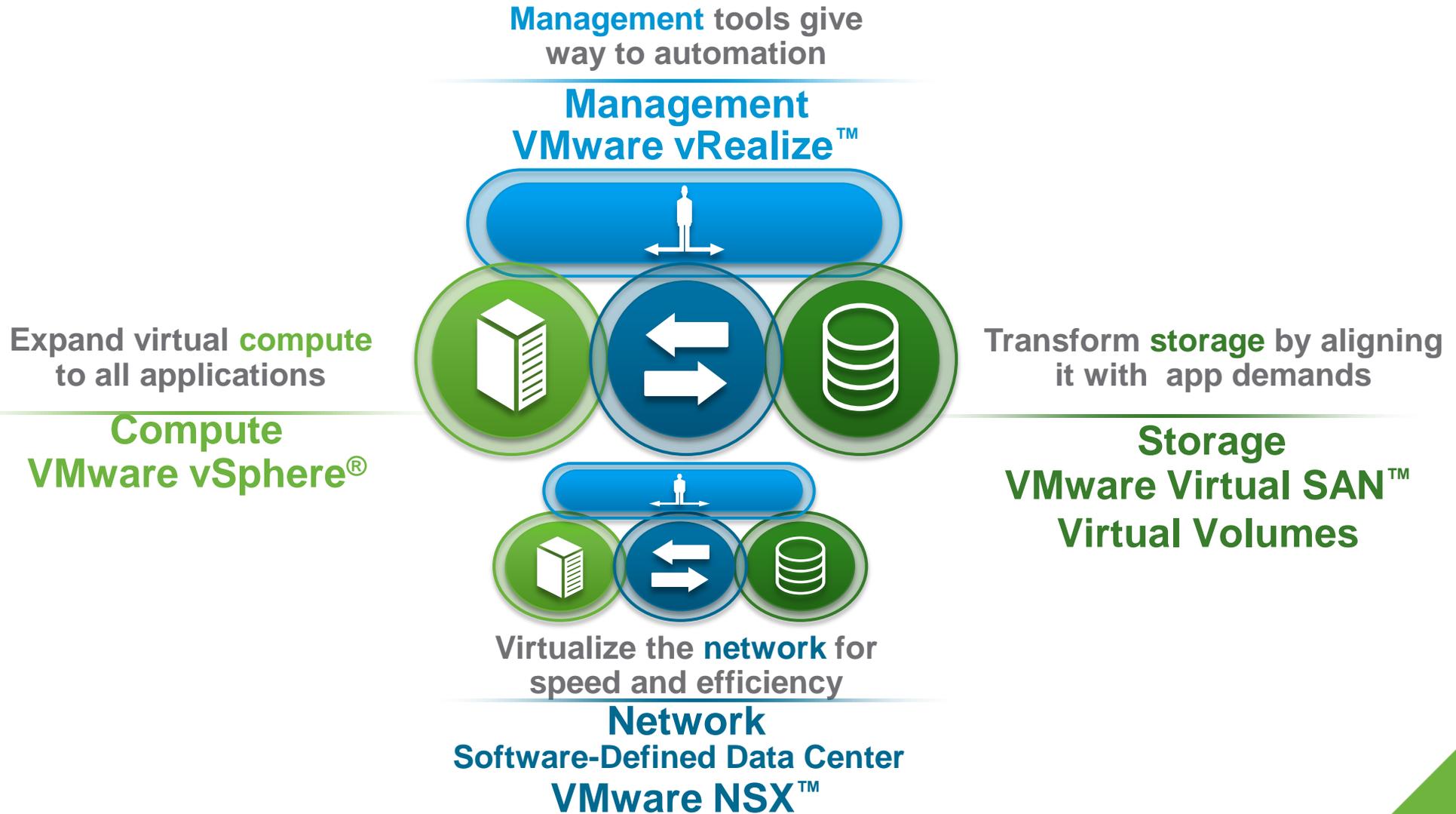# From Client/Server to Mobile/Cloud
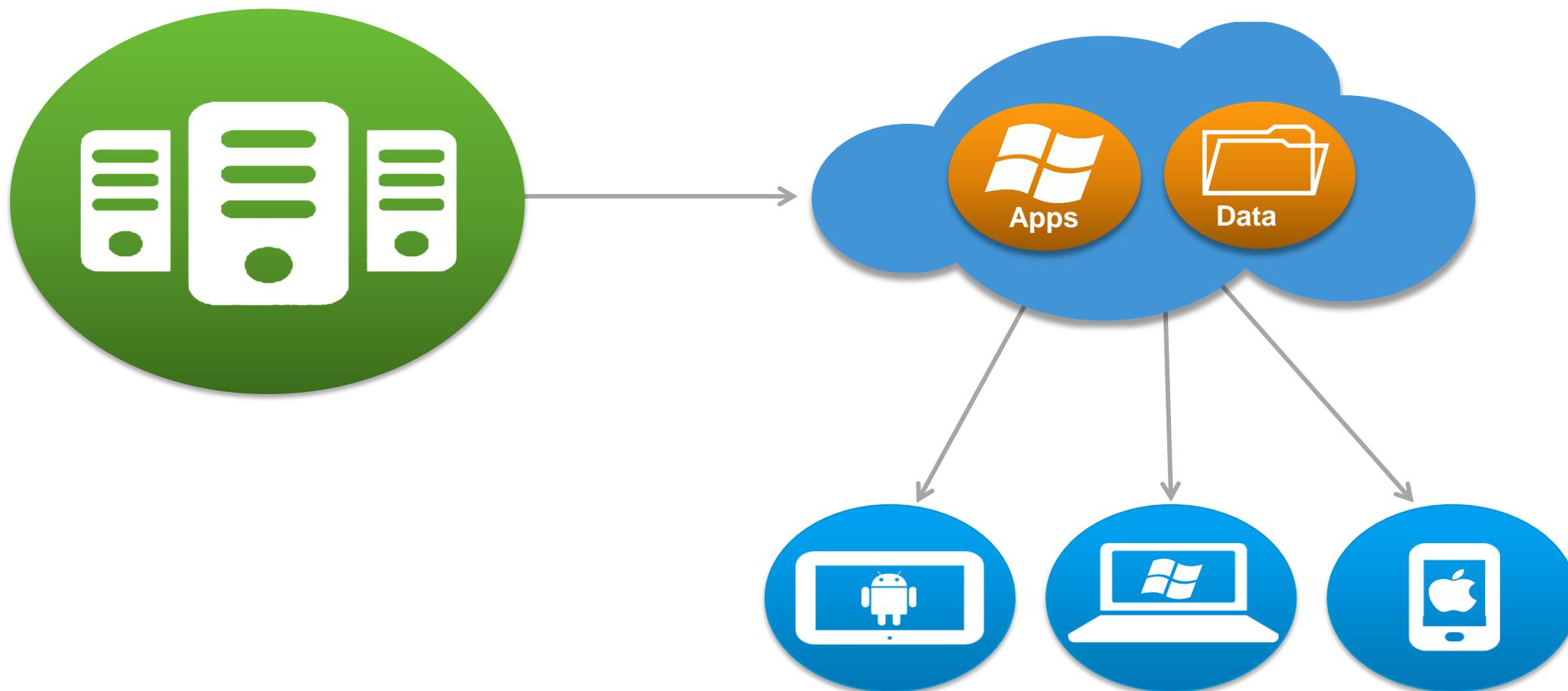
These Challenges Require a Different Approach

Major Challenge
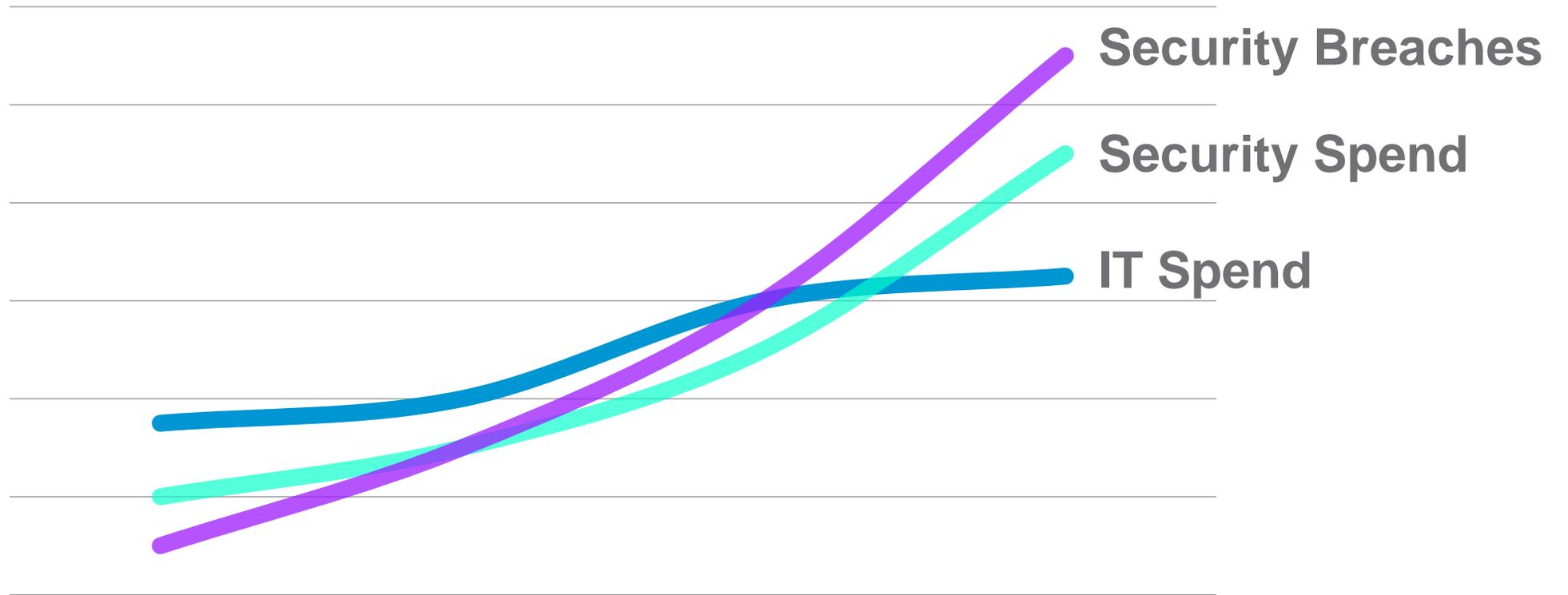# Requiring Brave Leadership:

Networking & Security

vmware®

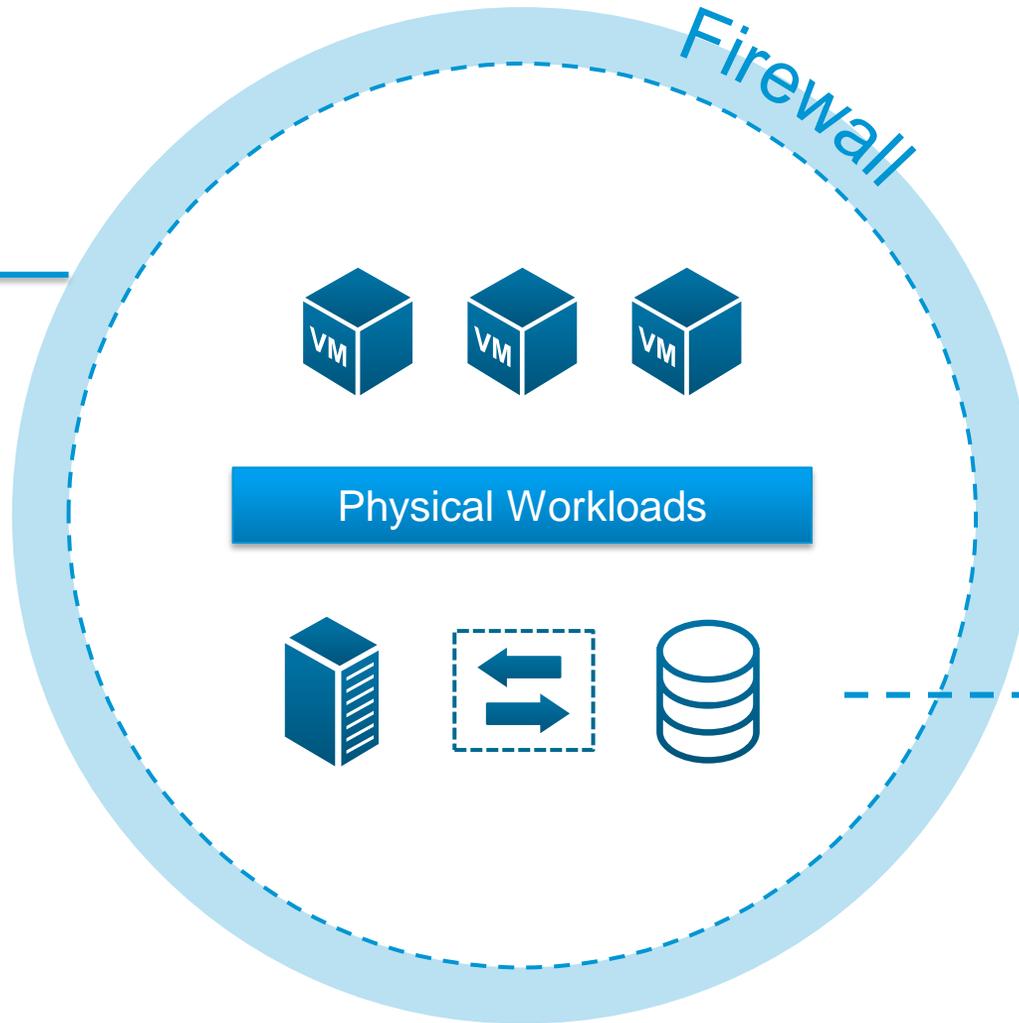# A Picture of Diminishing Returns

The only thing outpacing security spend is security breaches

Security Breaches

Security Spend

IT Spend

vmware®

Firewall

"Hard & Crusty on the Outside"

VM VM VM

Physical Workloads

"Soft & Gooey on the Inside"

vmware®

Physical Workloads

vmware®
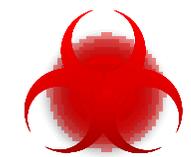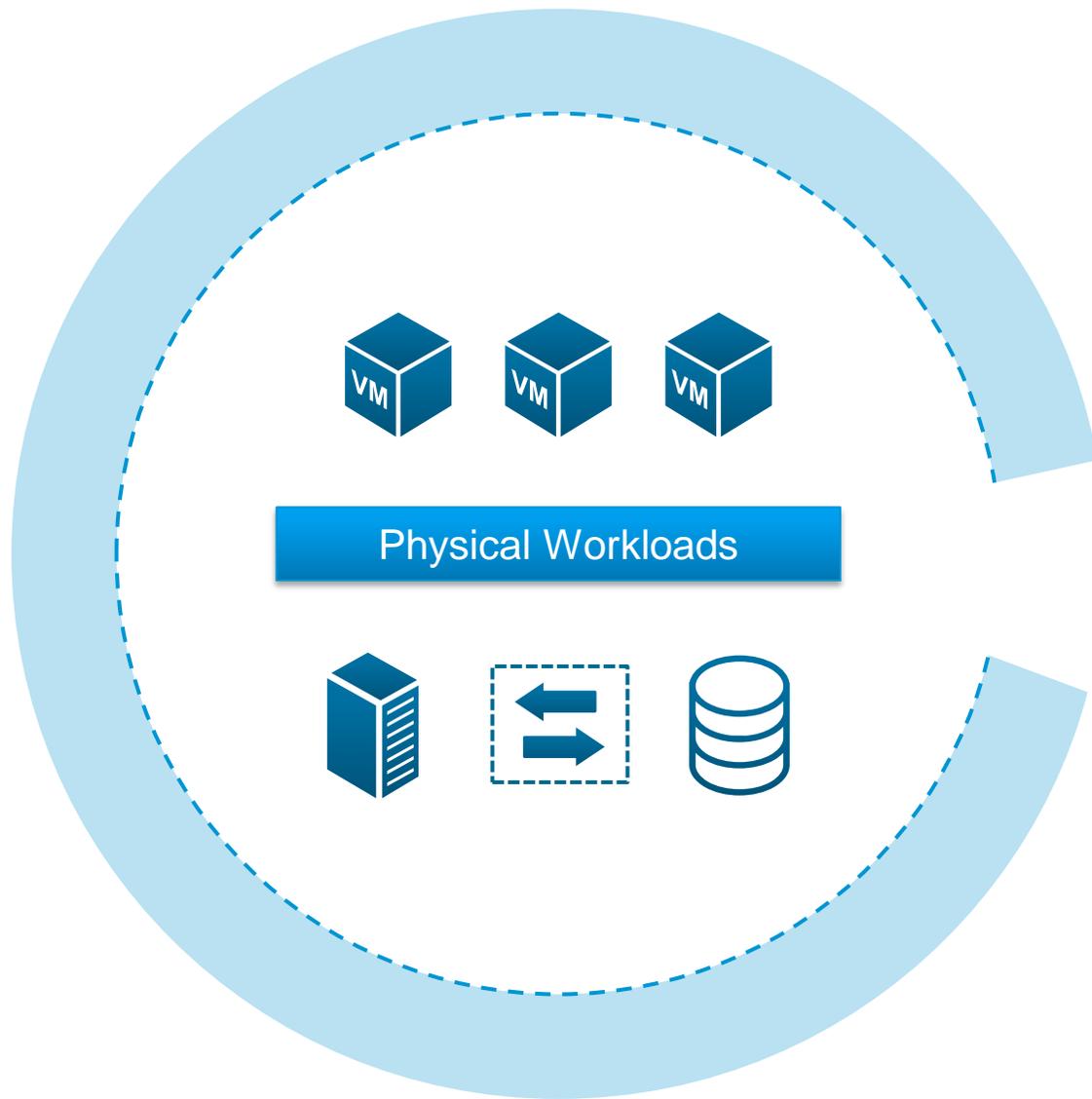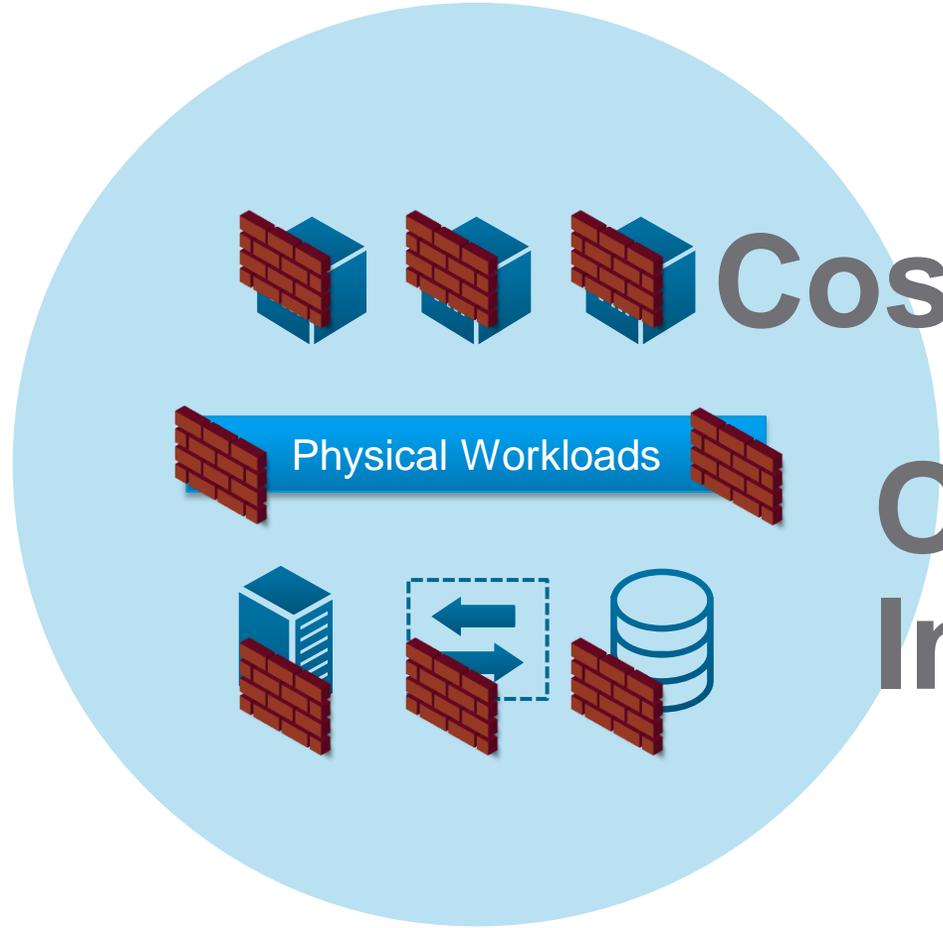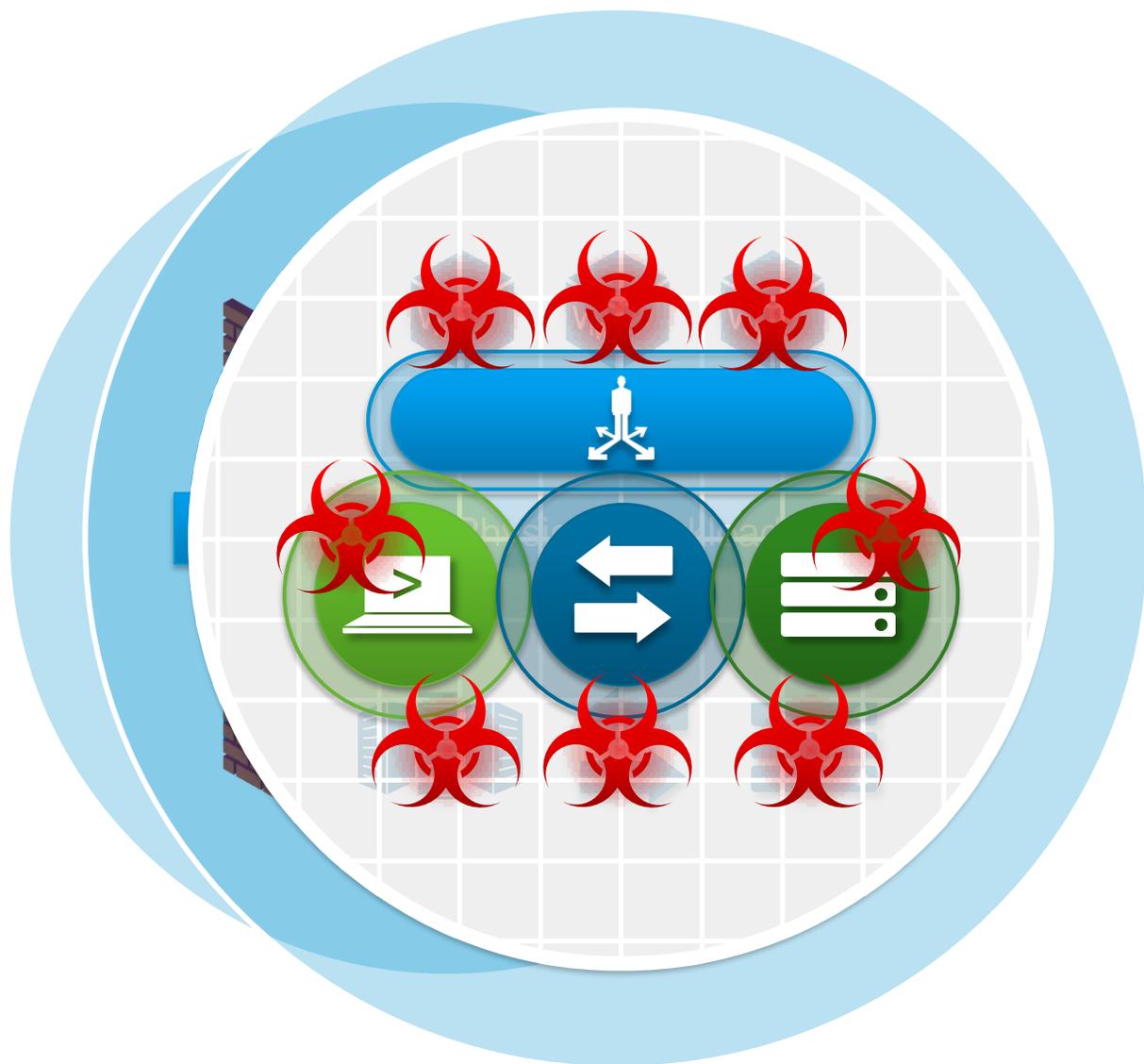
Software-Defined Data Center and NSX

Enabling a Major Breakthrough in IT Security:

Micro-Segmentation

vmware®

Major Challenge
Requiring Brave Leadership:

Building the SDDC

vmware®

3
Principles
Agile
Available
Inexpensive

vmware®

Comparing Public and Private Clouds

Public Cloud	Private Cloud
Low-cost commodity x86 physical infrastructure (storage, servers, network)	High cost traditional x86 physical infrastructure (storage, servers, network)
Homogenous virtual infrastructure layer	Heterogeneous virtual infrastructure layer
Purpose-built management stack	Traditional management stack or purpose-built stack that integrates with traditional components

Goals: Agile, Available, and Inexpensive

Challenges in Making SDDC Happen

Setup

- Understand where to begin
- Organizational structure and process changes
- Design a reference architecture
- Procure components from different vendors
- Time investment before first VM deployment

Provisioning

- Make disparate infrastructure nodes (compute, storage and networking) work together
- Lack of automation and tools for workload provisioning and deployment
- Many points of control

Lifecycle Management and Support

- Troubleshooting
- Support calls to multiple vendors
- Business interruption during patching and upgrades

VMware Provides Choice to Customers

"Build Your Own"

- Maximum customization and flexibility (hardware selection, scalability)

Converged Infrastructure

- Ease of procurement
- Custom fit to environment
- No limitations on scalability
- One support call

Hyper-Converged Infrastructure

- Ease of procurement via prescriptive approach
- Design predictability
- Faster time to deployment
- Simplified SDDC lifecycle management
- One support call

vmware®

Introducing the VMware EVO Family
Simplify How You Buy, Deploy and Operate Your SDDC

- EVO software with vSphere and Virtual SAN technology is the key enabler

- Preconfigured, pre-integrated SDDC stack offering from pre-qualified EVO partners

- Simple, streamlined deployment and ongoing SDDC lifecycle management

vmware®

TOR Switch

x4

x3
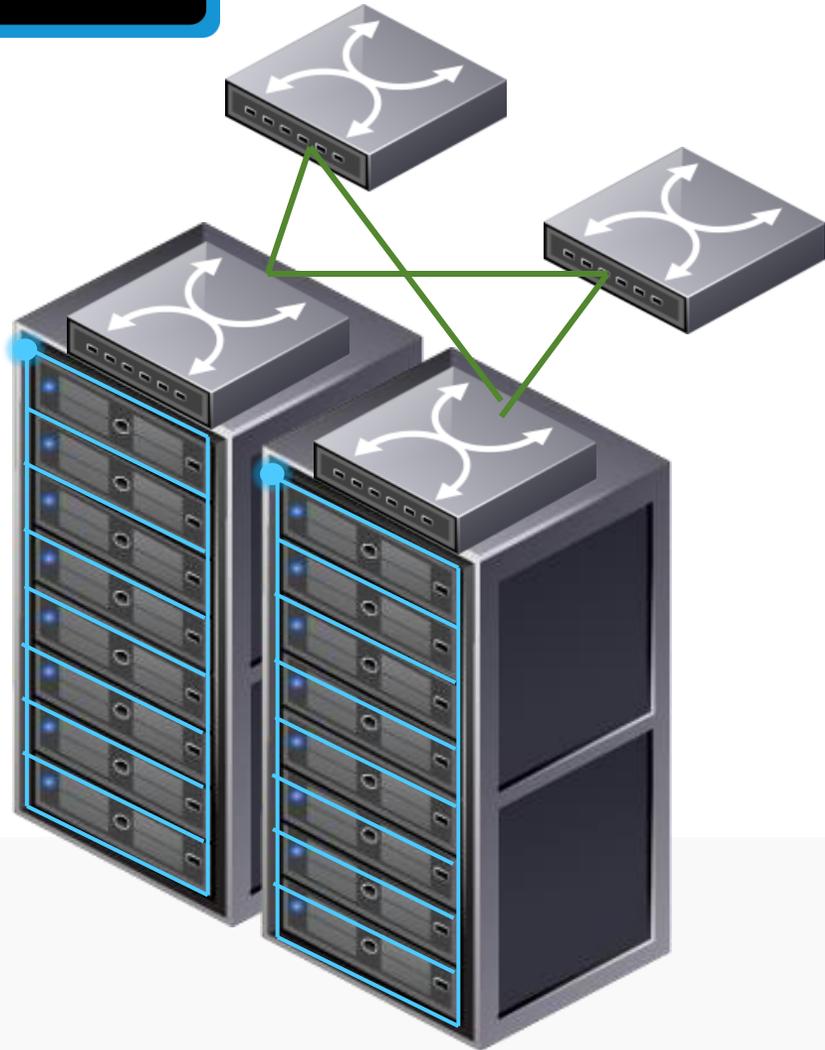
x2

x1

Hyper-Converged Infrastructure Appliance (HCIA)

Key Features

- Prescribed 2U/4N platform from qualified partners
- Automated scale out up to 4 HCIAs
  - General Purpose Server workloads ~100 VMs per HCIA
  - VDI ~250 VMs per HCIA
- Time to value to first VM in minutes
- Non disruptive patch & upgrade
- Primary use cases:

Dev/Test

VDI

ROBO

Virtual Private Cloud

Key Features

- Data Center-Scale Hyper-Converged Infrastructure from Pre-Qualified Partners
- Management:
  - Simplified SDDC deployment, configuration, and provisioning
  - SDDC lifecycle – non-disruptive patching/upgrading
  - SDDC-wide capacity planning
  - Integrated management of both logical and physical resources
  - Configuration and provisioning of end-to-end network infrastructure
- SDDC up and running in under 2 hours
- Primary use cases:

VDI   **IaaS**   **PaaS**   **Big Data**

VMware EVO - Key Benefits and Primary Use Cases

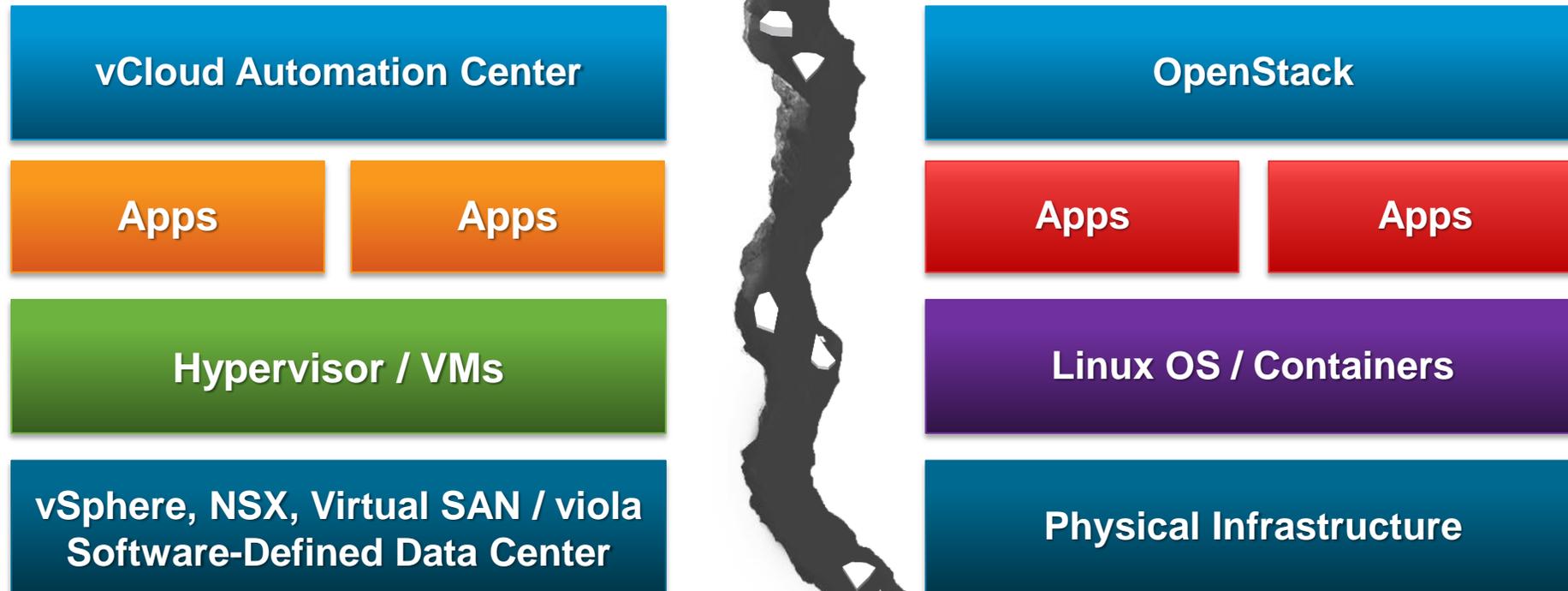| Preconfigured, Pre-Integrated SDDC Stack | Design Predictability | Faster Time-to-Value | Simplified SDDC Lifecycle Management | Highly Scalable |

vmware® EVO RAIL™

vmware® EVO RACK — TECH PREVIEW

Currently in Plan   **Future – roadmap**

Primary Use Cases

Dev/Test | VDI | ROBO | Virtual Private Cloud

VDI | IaaS | PaaS | Big Data

vmware®

Challenge: Separate Platforms for IT & Developers

vCloud Automation Center

Apps | **Apps**

Hypervisor / VMs

vSphere, NSX, Virtual SAN / viola Software-Defined Data Center

OpenStack

Apps | **Apps**

Linux OS / Containers

Physical Infrastructure

vmware®

VMware Integrated OpenStack

Now in Beta

One Platform for Any App

VMware API

Apps   Apps

OpenStack API

Apps   Apps

Virtual SAN / vVol   NSX   vSphere

vRealize Suite

Software-Defined Data Center
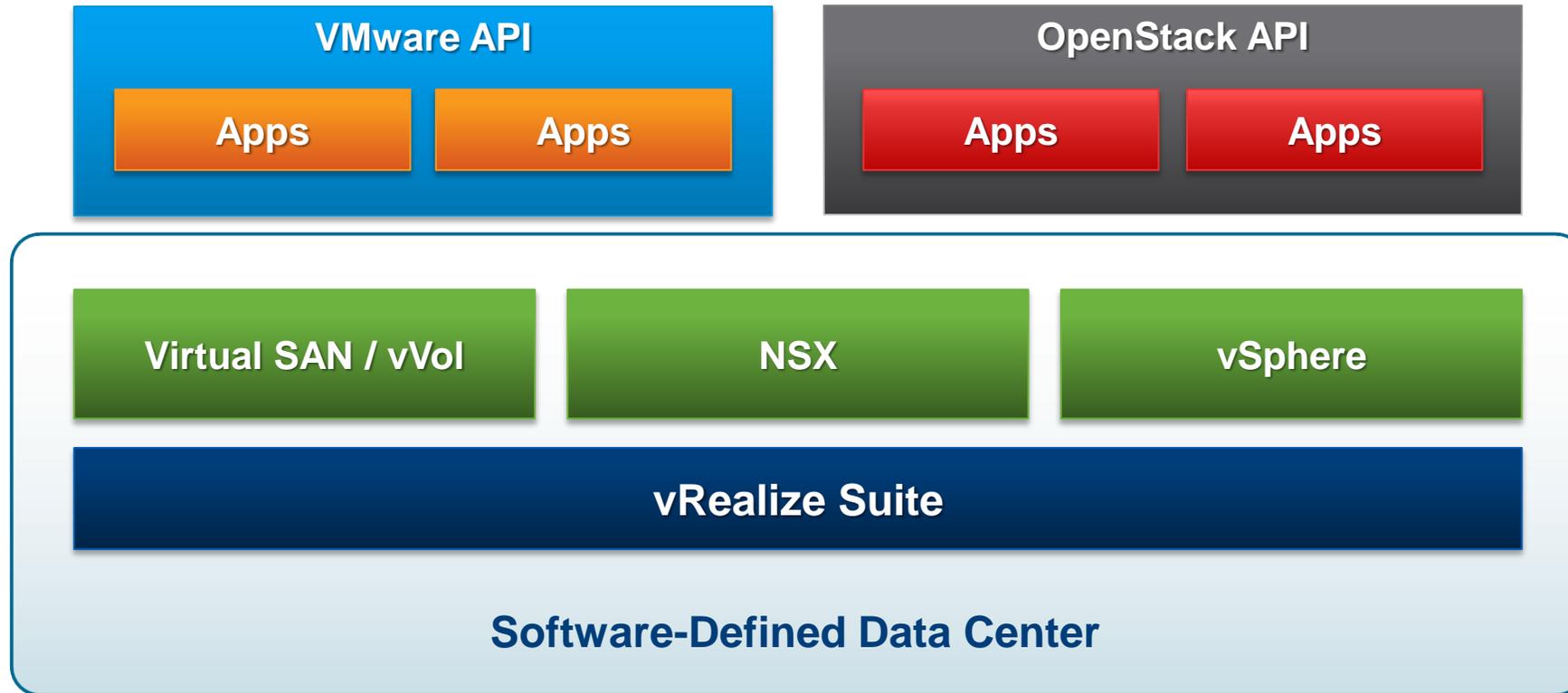
vmware®

Perception Today:

VM Vs. Container
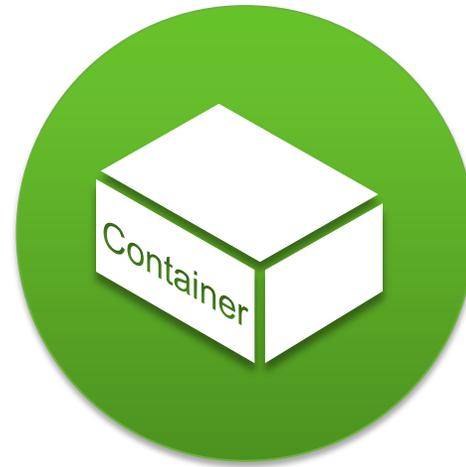
vmware®

Announcing…
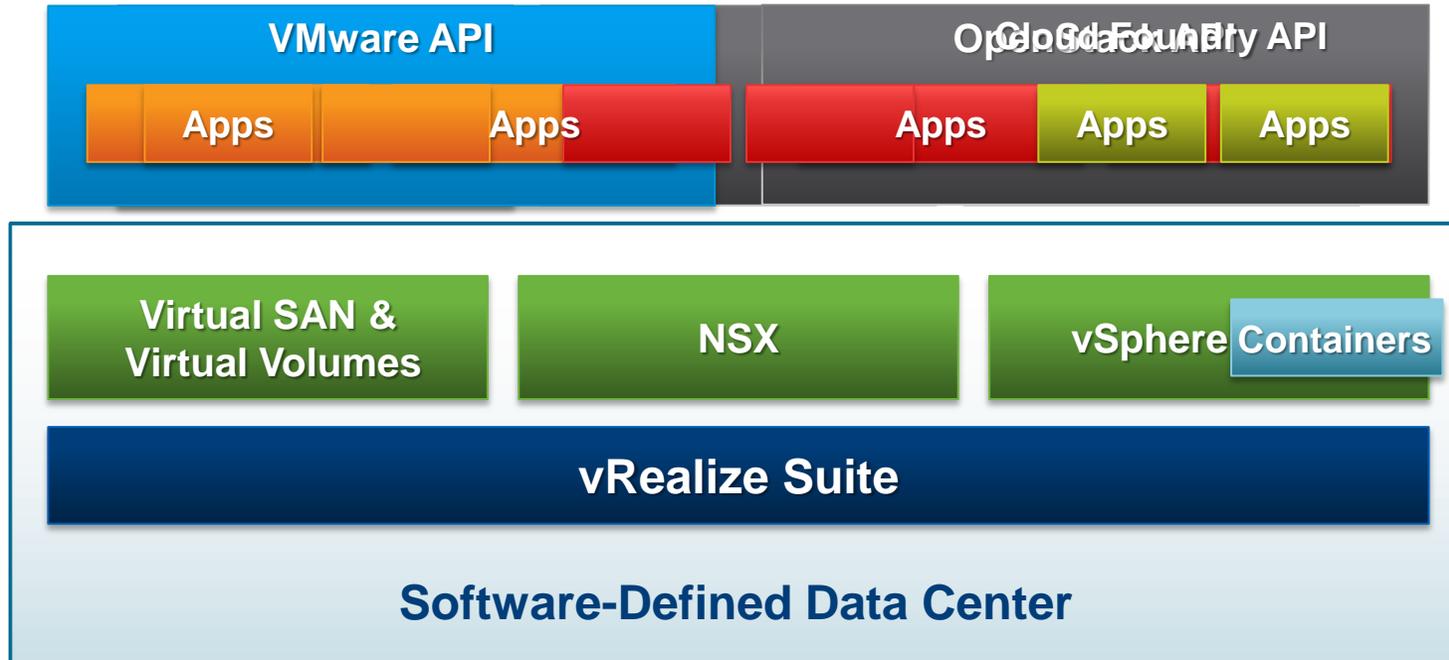# A Common Platform for All Apps

Containers without compromise

"For enterprises seeking to efficiently build, ship, and run enterprise apps, Docker and VMware can deliver the best of both worlds for developers and IT/operations teams. Joint customers will benefit from enabling IT to run and operationalize their Docker environments on their current virtual infrastructure and take advantage of existing management, compliance, networking and security processes and tools."
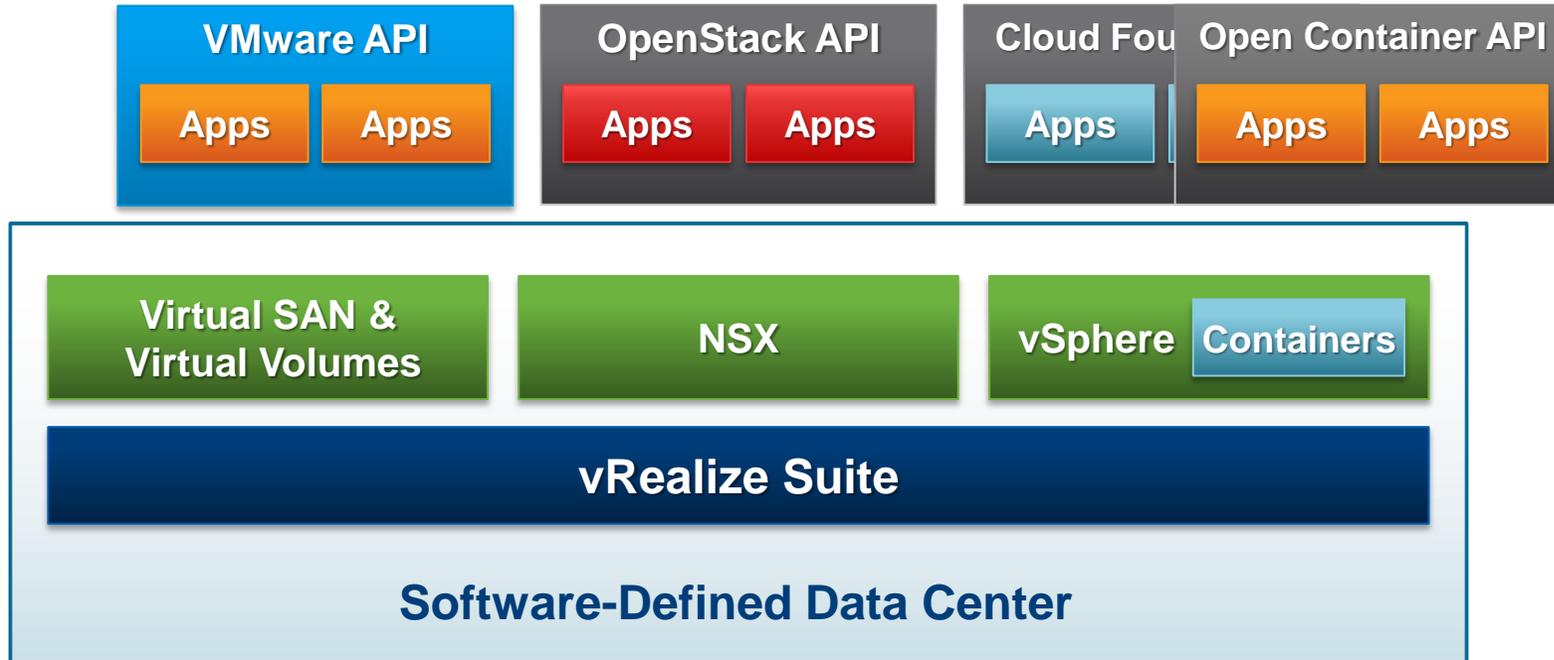**- Ben Golub, CEO, Docker**

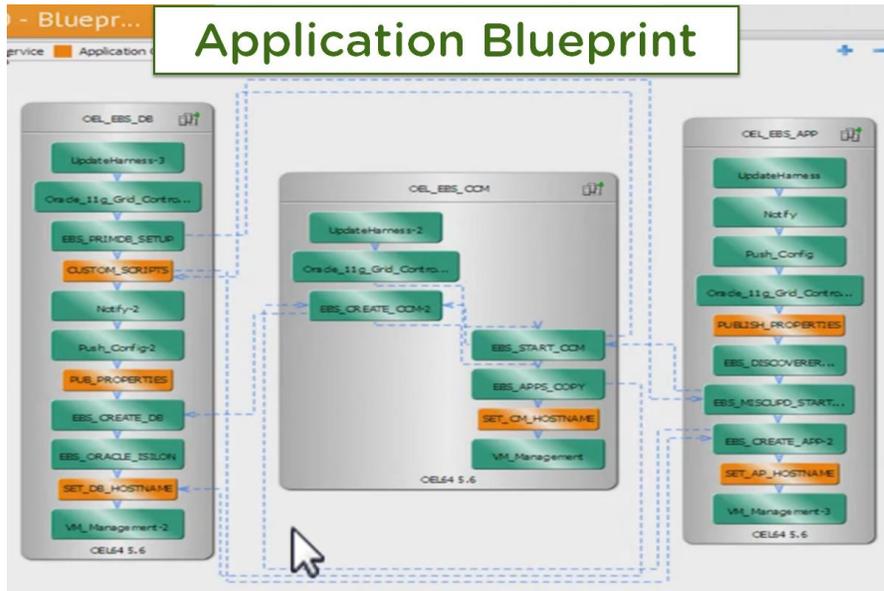# One Platform for Any App

VMware API

Cloud Foundry API

Apps | Apps | Apps | Apps | Apps

Pivotal™

Virtual SAN & Virtual Volumes | NSX | vSphere Containers

vRealize Suite

Software-Defined Data Center

vmware®

One Platform for Any App

SDDC: Deploy Once, Run Anywhere Freedom
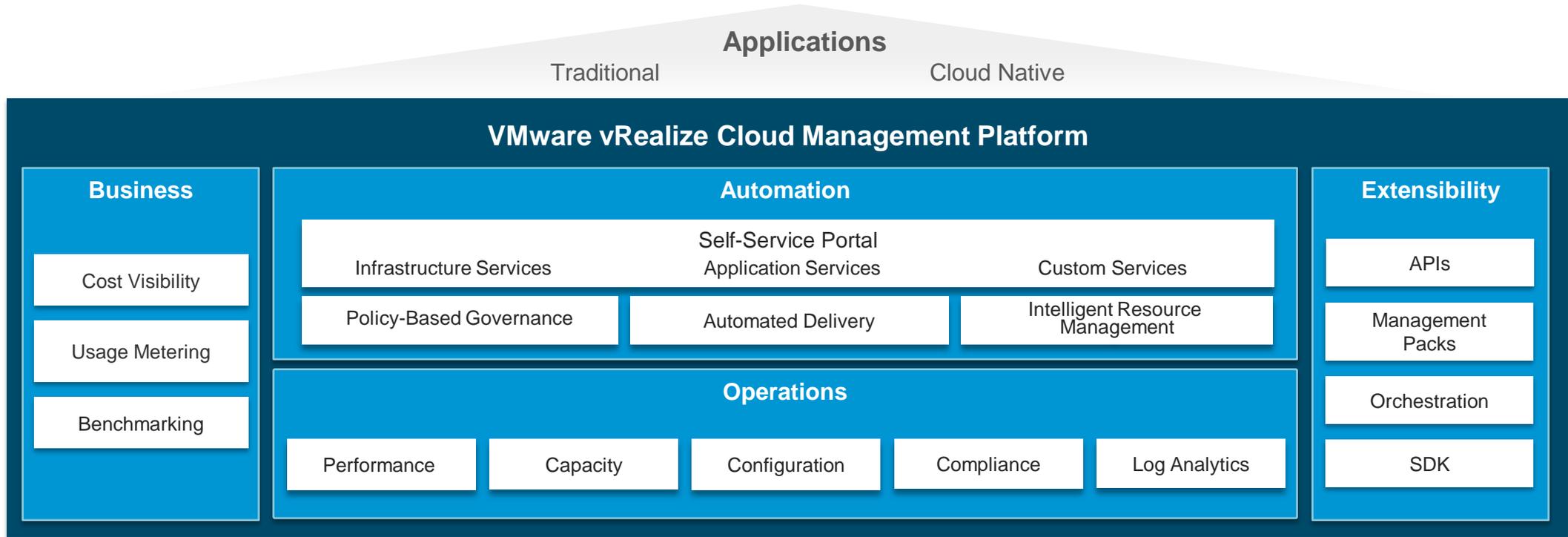
Management and Operational Stack Follows the App

Application Blueprint

vCloud Air Network for ROBO

Test/Dev - vCloud Air

**Production Deployment
Private Cloud**

vCloud Air™
Network

vmware®

It's a Hybrid World

Applications

Traditional   Cloud Native

VMware vRealize Cloud Management Platform

Business

Cost Visibility

Usage Metering

Benchmarking

Automation

Self-Service Portal

Infrastructure Services   Application Services   Custom Services

Policy-Based Governance   Automated Delivery   Intelligent Resource Management

Operations

Performance   Capacity   Configuration   Compliance   Log Analytics

Extensibility

APIs

Management Packs

Orchestration

SDK

Heterogeneous   Hybrid

Infrastructure

Virtual

vmware vSphere

vmware vSAN

vmware NSX

Microsoft   CITRIX   redhat   KVM   openstack

Cloud

Azure

vmware vCloud Air

amazon

Private

vmware vCloud Provider

Physical

vmware®

Evolution is Inevitable
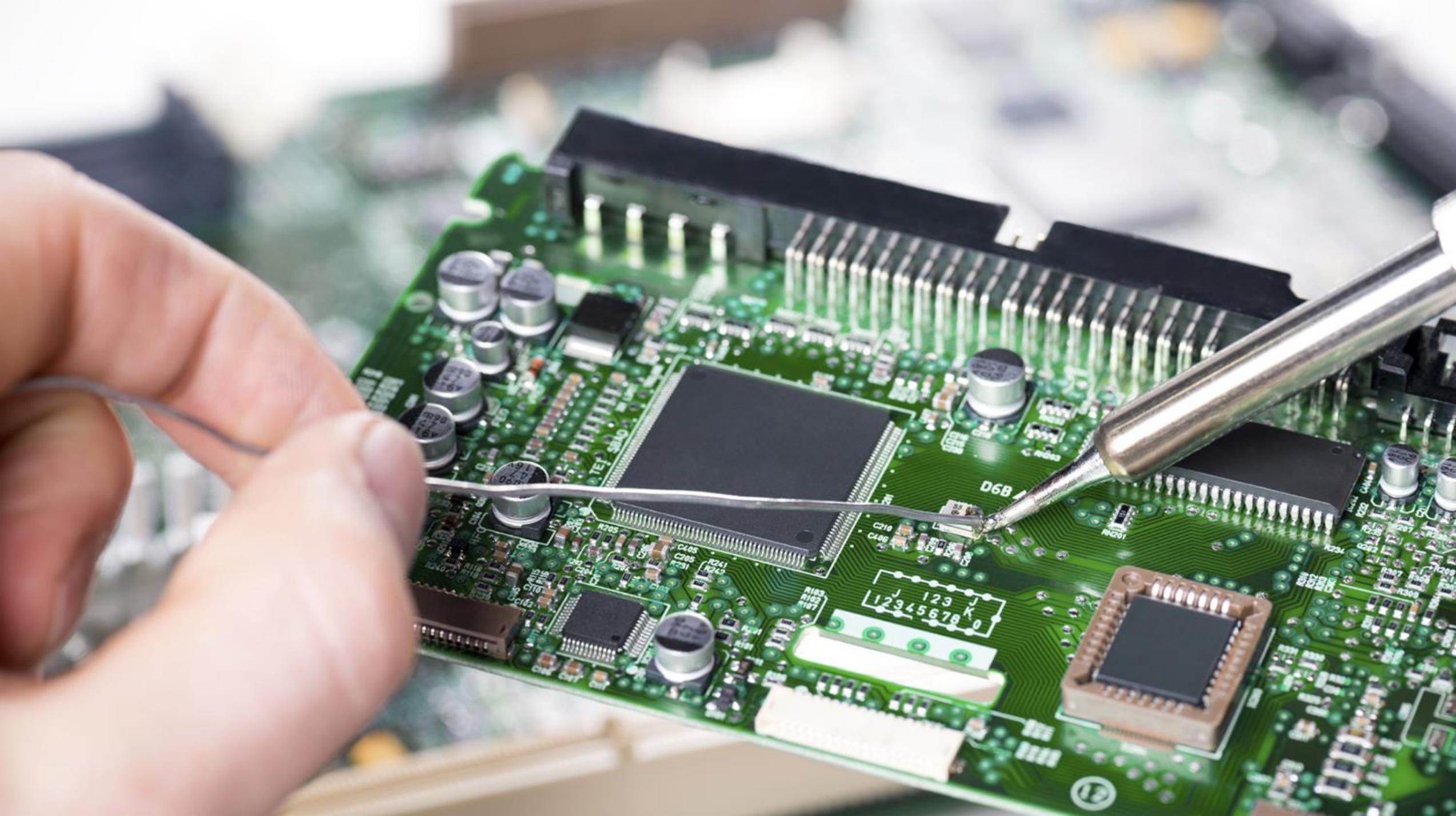
Lose the Cape!

Obsess Over Speed

"I had to get over the idea that it wasn't my idea."
- Salman Khan

Be an Innovation Champion, Even If It's Not Your Innovation

Choose a Strategic Partner for Your Journey

Thank You

vmware®