VMware next Strategy:

The Software-Defined Enterprise will empower IT as a Service

Marcel Panholzer
Senior Manager Systems Engineering

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"By the end of 2016, every relevant IT organization will have standardized on a software-defined approach to IT – the key to creating an agile enterprise. VMware's task is to help our customers transform to this new model as fast as possible."

Pat Gelsinger
CEO, VMware

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Empowering IT as a Service

Redefine Efficiency & Agility Through the Software-Defined Data Center (SDDC)

Provide Choice Without Sacrificing Security & Control with Hybrid Cloud Computing

Empower the Workforce with Secure Mobility

Mobile Cloud

Infobit 2014 Zürich

AGENDA

- Software Defined Data Center (vCloud Suite)
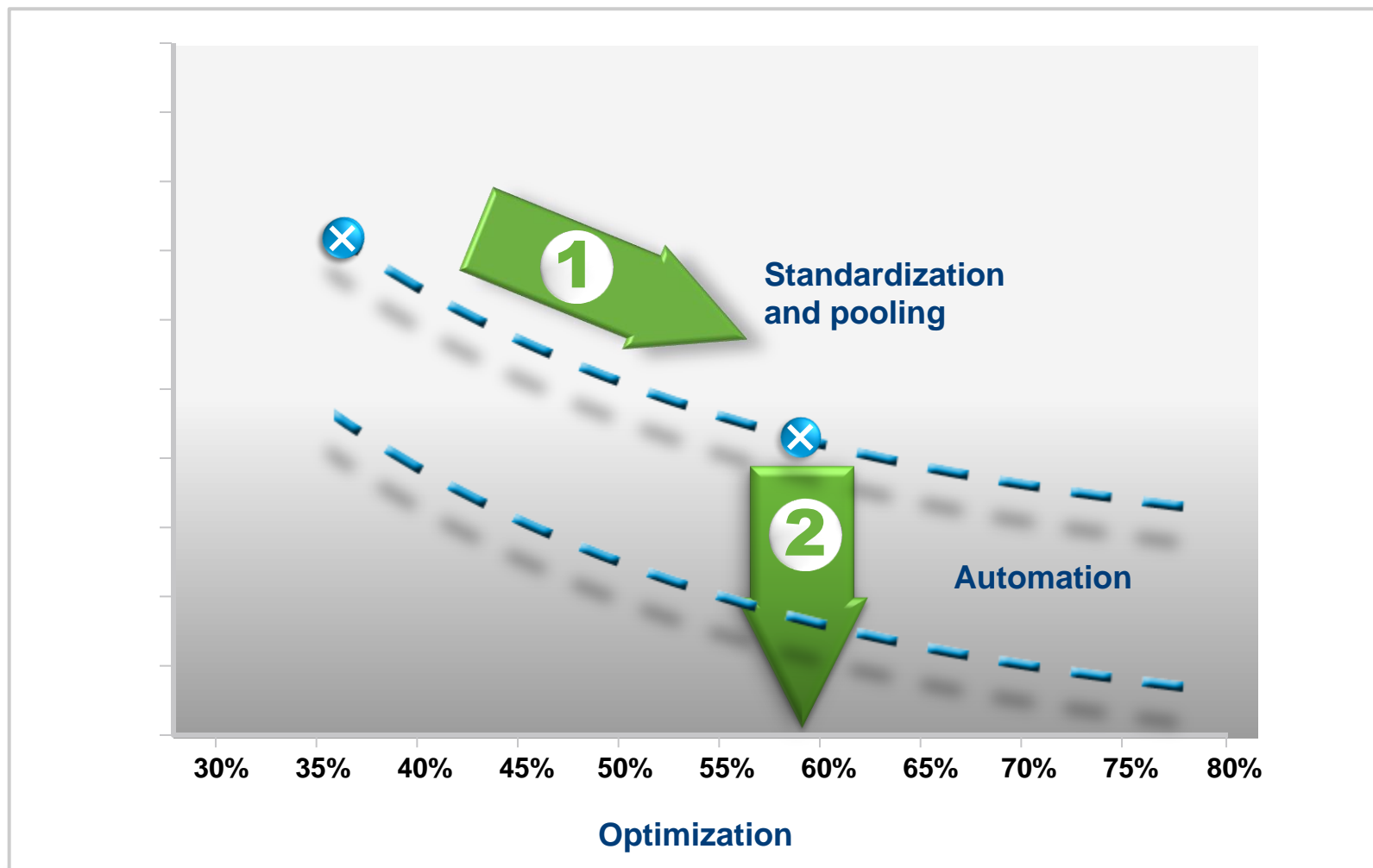 - Virtual SAN
  - NSX
- vCloud Hybrid Service
- Mobile Cloud

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Software-Defined Data Center

Why Software Defined Data Centers?
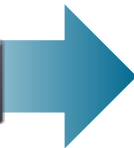
Two reasons for Virtualizing

Cost per VM

(Chart) X-axis: **Optimization** (30% to 80%). Arrow **1** labeled **Standardization and pooling**. Arrow **2** labeled **Automation**.

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Major Benefits Achieved… Much More is Possible!

Past

Present

+

Enterprise storage

VLAN networks

Firewall, load-balancer

IDS, security, monitoring

Availability

**$10,000
10 weeks**

**$300
2 minutes**

**$1,000
3 days,**

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SDDC = Major Breakthrough in Speed and Agility
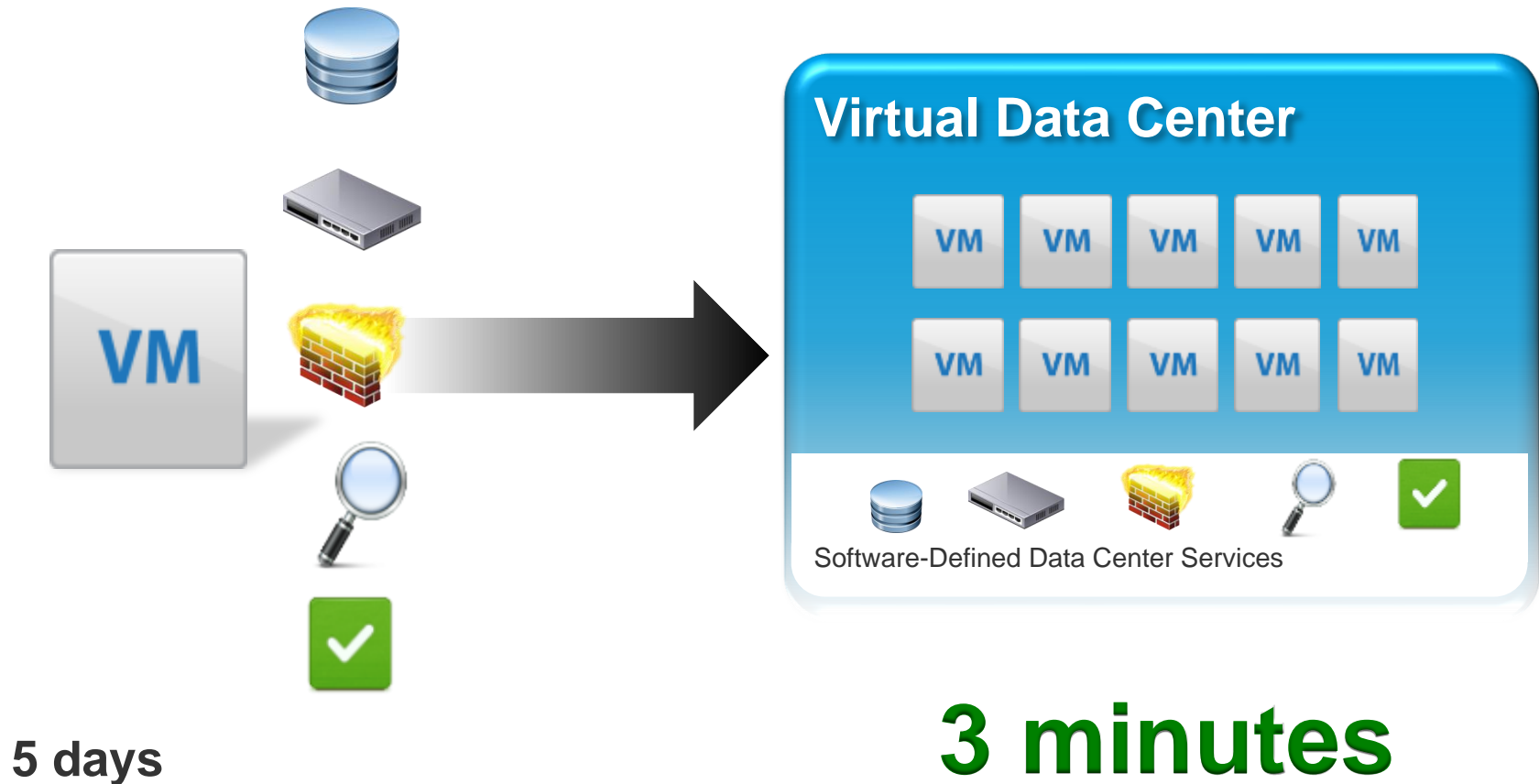
Virtual Data Center

VM VM VM VM VM

VM VM VM VM VM

Software-Defined Data Center Services

5 days

3 minutes
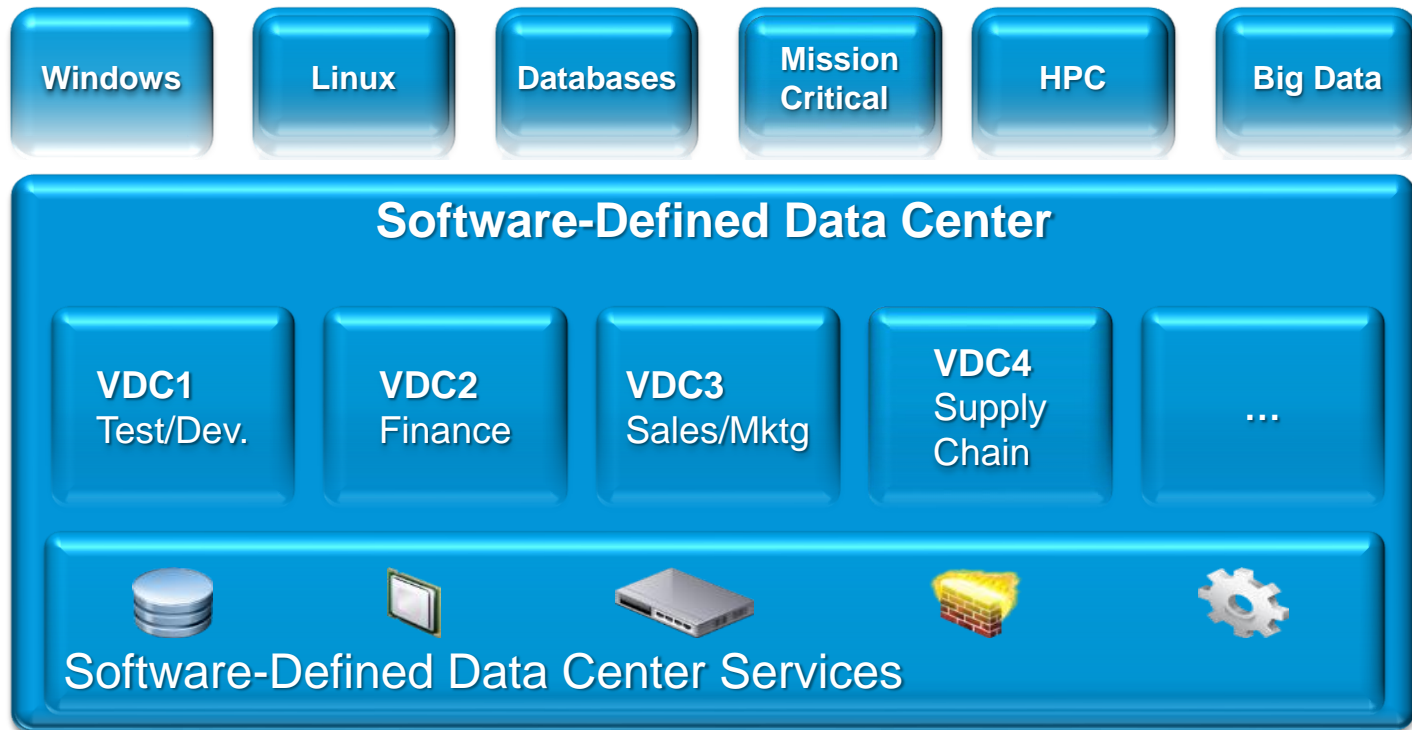
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From Virtualization to SDDC – One Destination, Two Paths
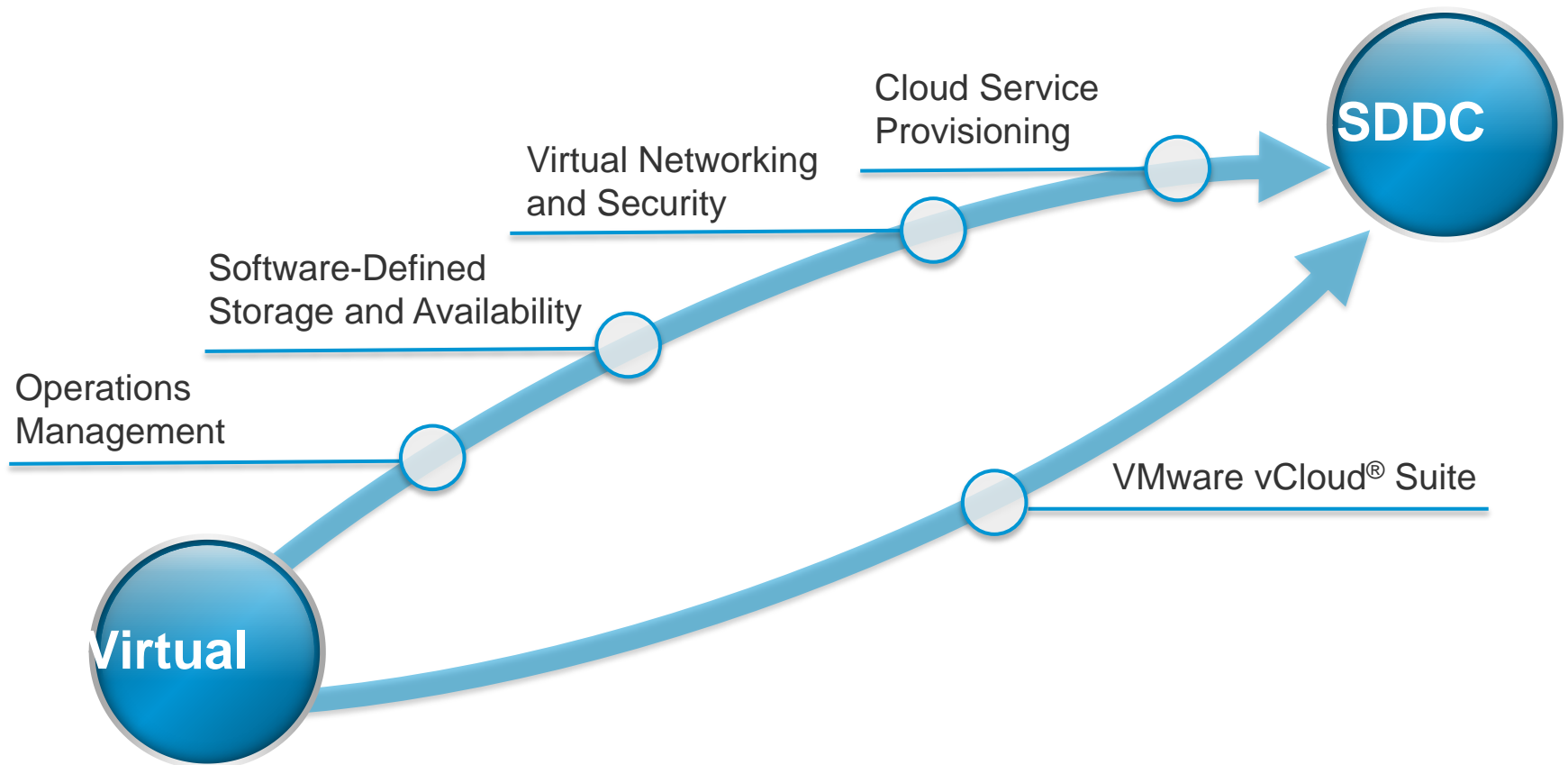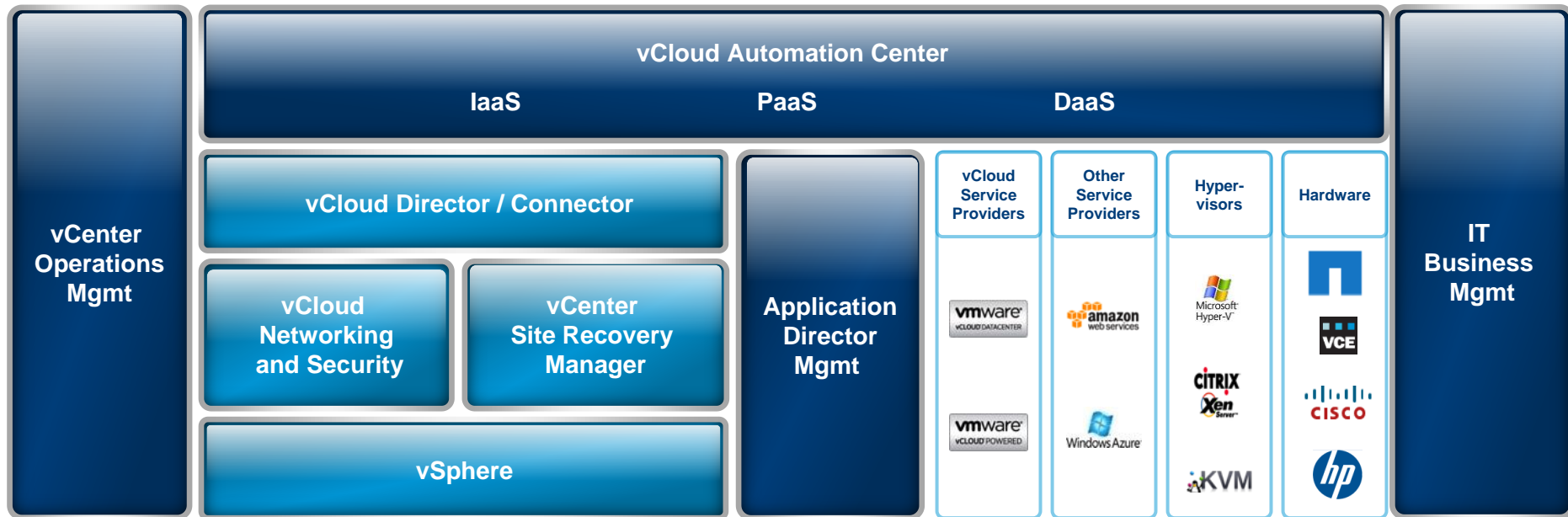
SDDC

Cloud Service Provisioning

Virtual Networking and Security

Software-Defined Storage and Availability

Operations Management

VMware vCloud® Suite

Virtual

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VMware vCloud Suite

Software-Defined Storage and Availability

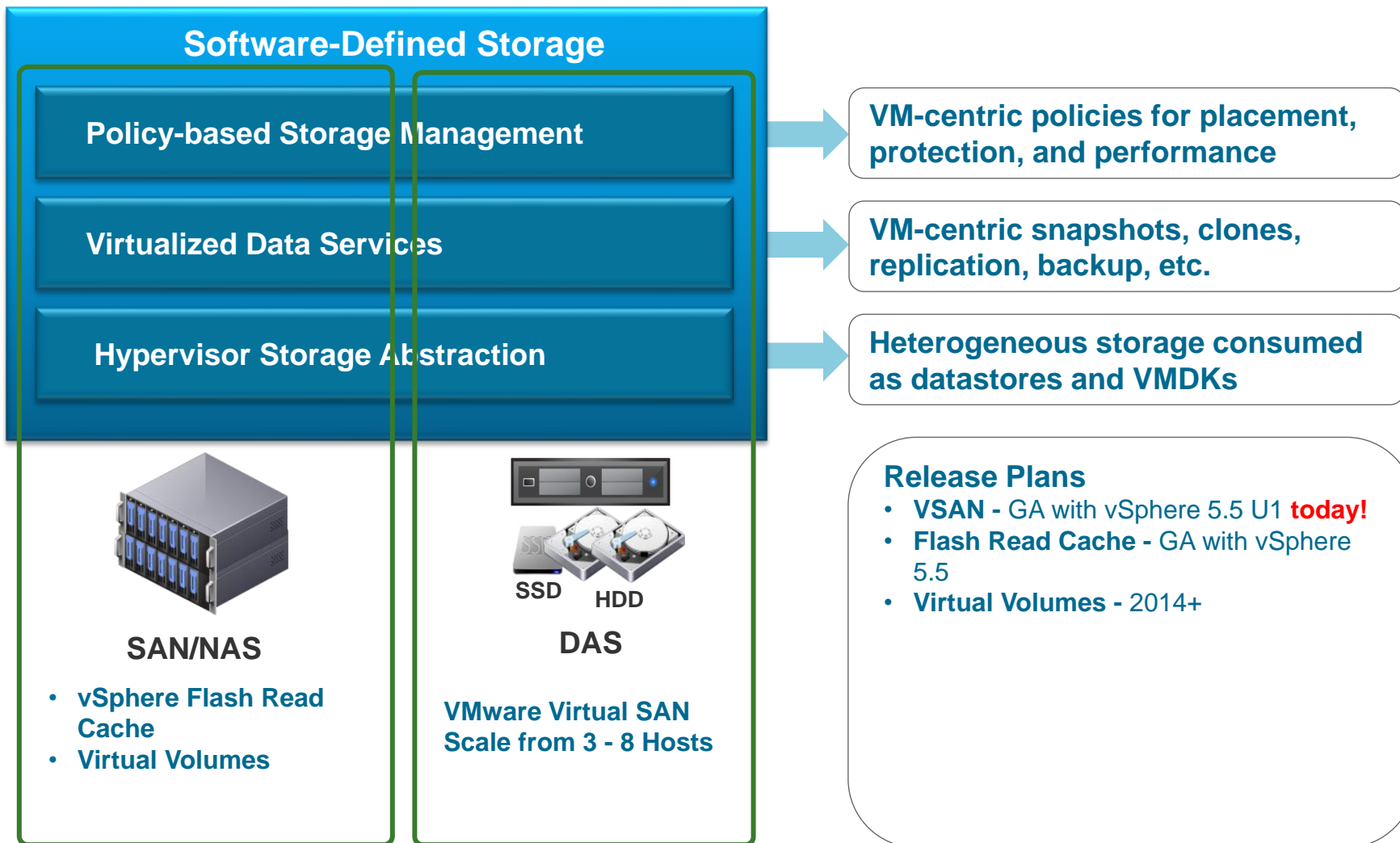Fully Abstracted, Pooled, Automated Storage
for the Software-Defined Data Center

VMware Virtual SAN
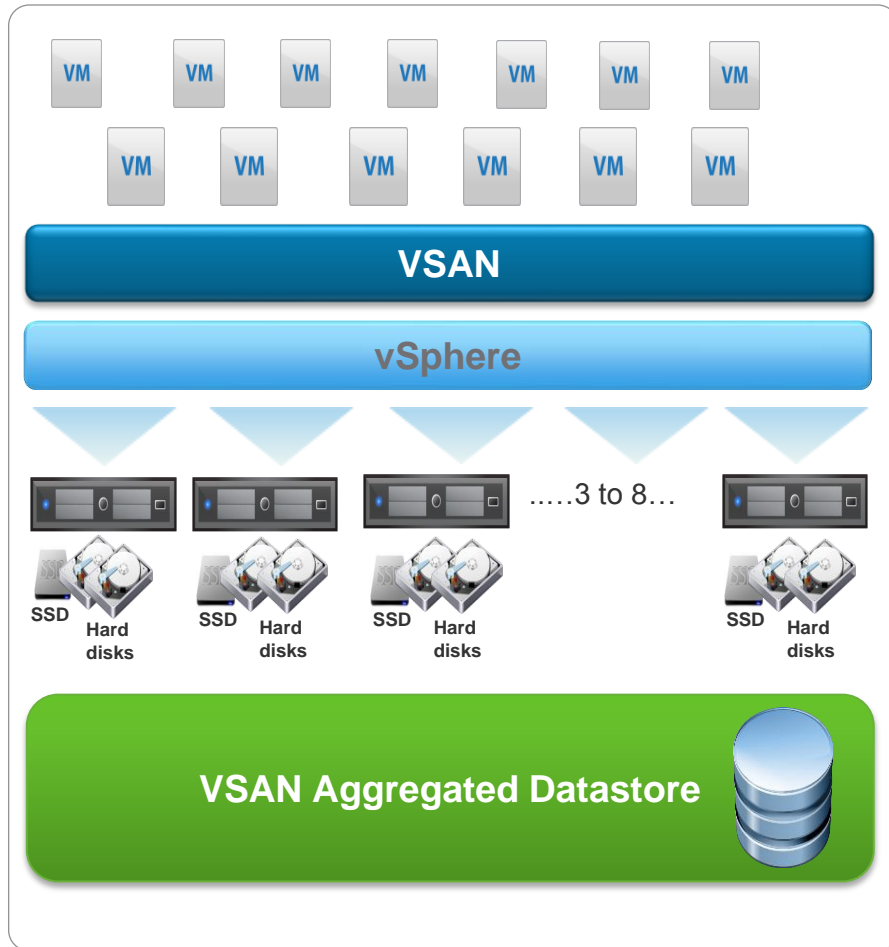
VMware Approach to Software-Defined Storage

Software-Defined Storage

- Policy-based Storage Management
- Virtualized Data Services
- Hypervisor Storage Abstraction

VM-centric policies for placement, protection, and performance

VM-centric snapshots, clones, replication, backup, etc.

Heterogeneous storage consumed as datastores and VMDKs

SAN/NAS

- vSphere Flash Read Cache
- Virtual Volumes

DAS

SSD   HDD

VMware Virtual SAN Scale from 3 - 8 Hosts

Release Plans
- **VSAN -** GA with vSphere 5.5 U1 **today!**
- **Flash Read Cache -** GA with vSphere 5.5
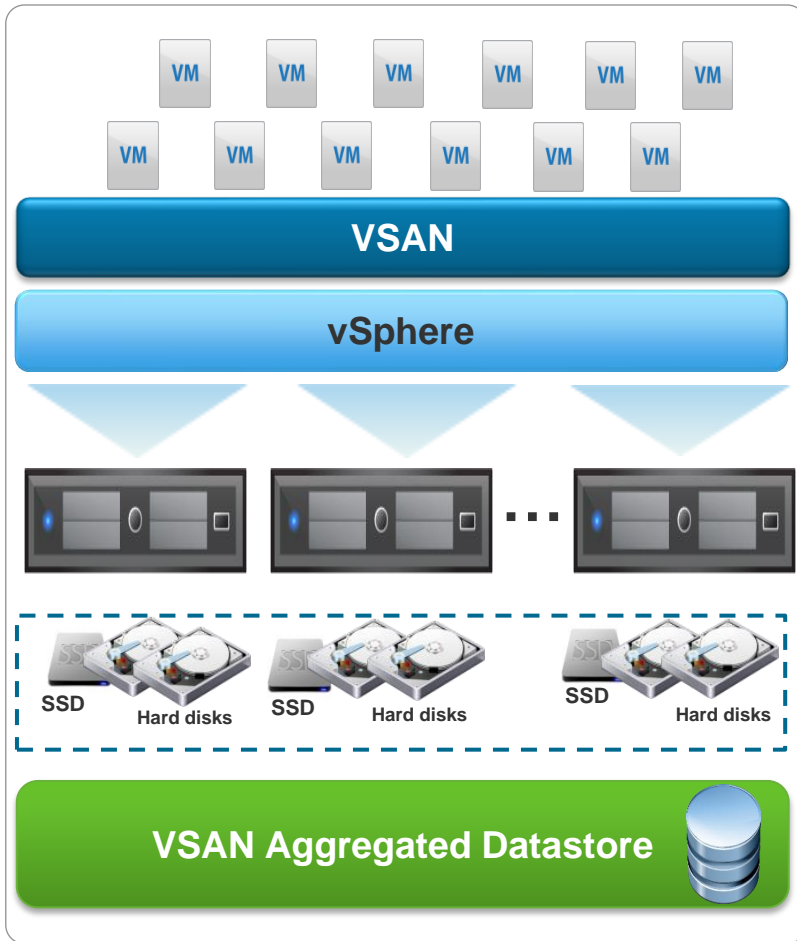- **Virtual Volumes -** 2014+

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vSAN: Radically Simple Storage

Key Features

- Policy-driven per-VM SLA
- vSphere & vCenter integration
- Scale-out storage
- Built-in resiliency
- SSD caching
- Converged Compute & Storage

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What are the key components of Virtual SAN?

Key Components

- Hybrid storage system which leverages Aggregates local SSD's as a cache and local HDD's to provide a clustered data store for VM consumption
- Distributed object-based RAID architecture provides no single point of failure
- Fully integrated with vCenter, HA, DRS, vMotion
- Scale-Out Storage: 3-8 nodes in 1.0, >8 planned for near future

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vSAN Datastore for great Performance
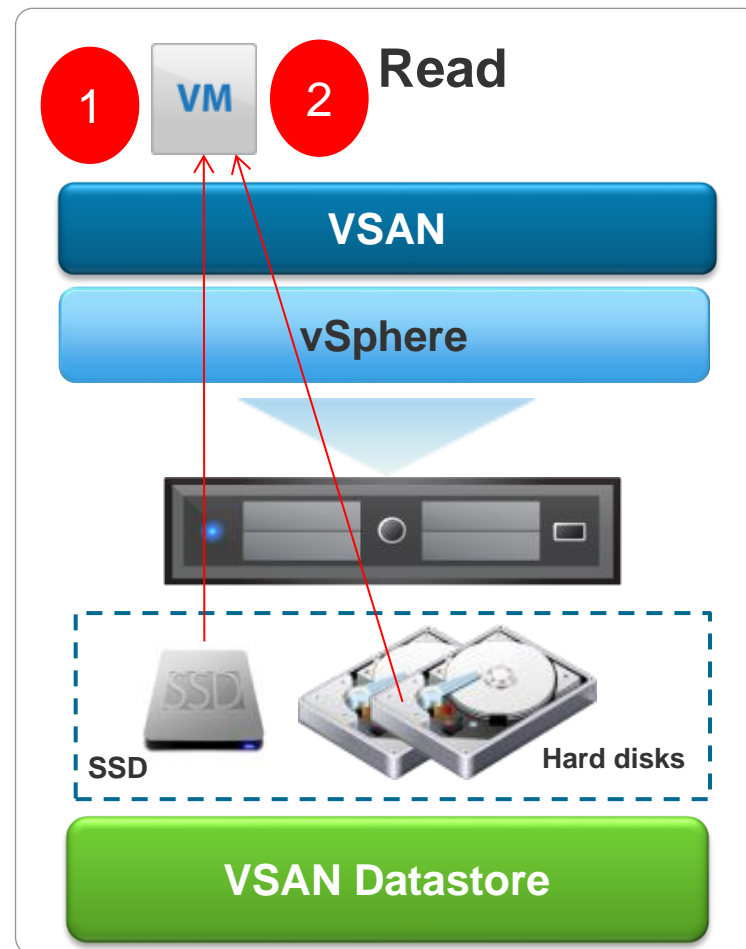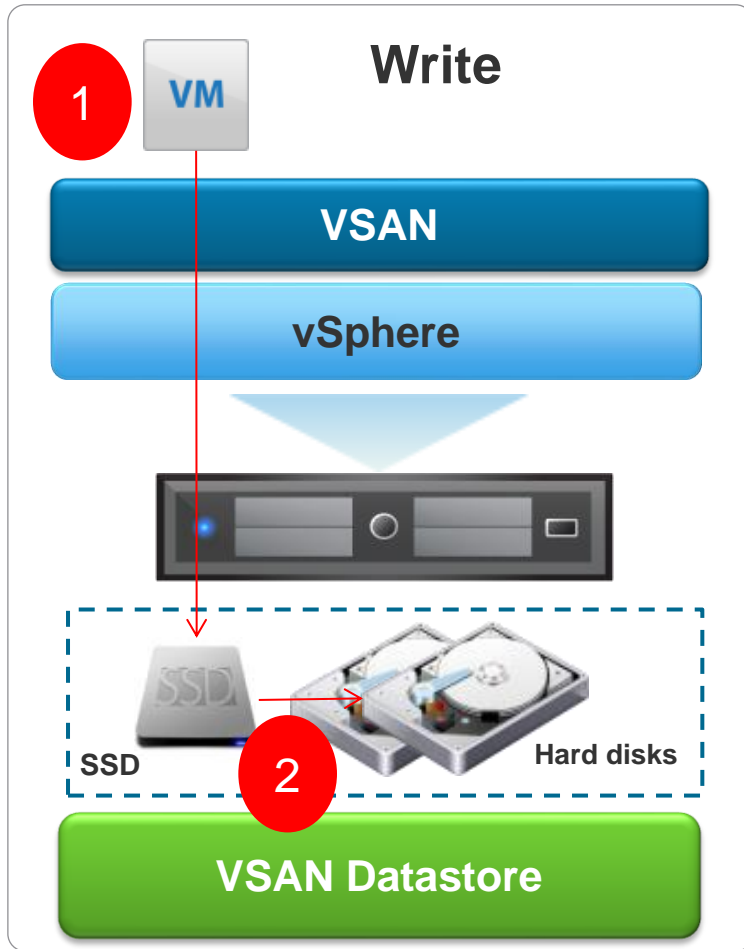
- All VM I/O is directed to the SSD. Writes are later destaged to HDD.
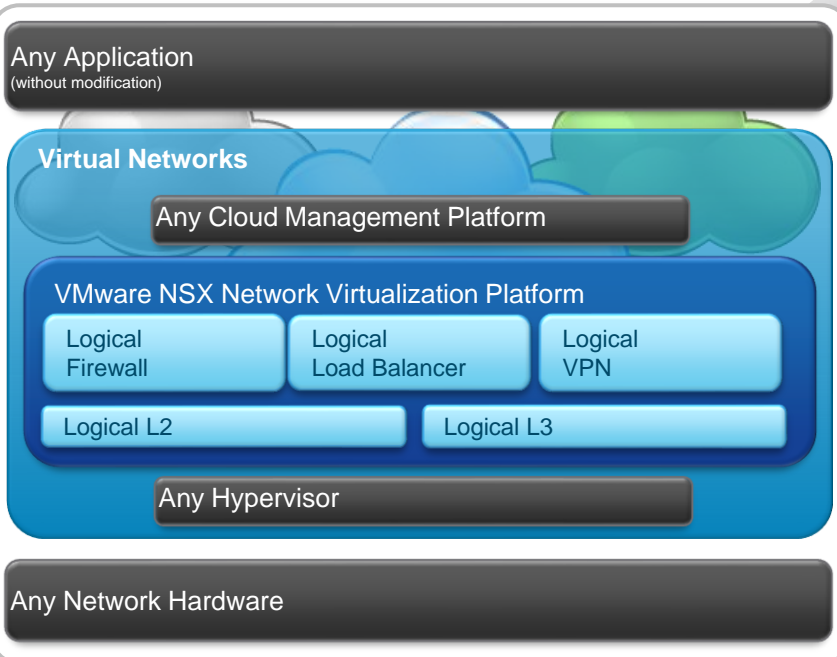- If the requested read block is not in cache, the request is directed to HDD

Network Virtualization

Transforming the Network to
Speed Business Innovation

VMware NSX – The Platform for Network Virtualization

Logical Switching– Layer 2 over Layer 3, decoupled from the physical network

Logical Routing– Routing between virtual networks without exiting the software container

Logical Firewall – Distributed Firewall, Kernel Integrated, High Performance

Logical Load Balancer – Application Load Balancing in software

Logical VPN – Site-to-Site & Remote Access VPN in software

NSX API – RESTful API for integration into any Cloud Management Platform

Partner Eco-System

Any Application
(without modification)

Virtual Networks

Any Cloud Management Platform

VMware NSX Network Virtualization Platform

Logical Firewall

Logical Load Balancer

Logical VPN

Logical L2

Logical L3

Any Hypervisor

Any Network Hardware

GA Q4, 2013

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Hybrid Cloud

VMware and Our Partners make Hybrid Cloud happen for you

Hybrid Cloud Services

Private

Public

vCloud Hybrid Service

vCloud Powered SP

License

Subscription

vCloud Suite

Software-Defined Data Center Services

Management and Automation

Compute & Memory	Network & Security	Storage & Availability
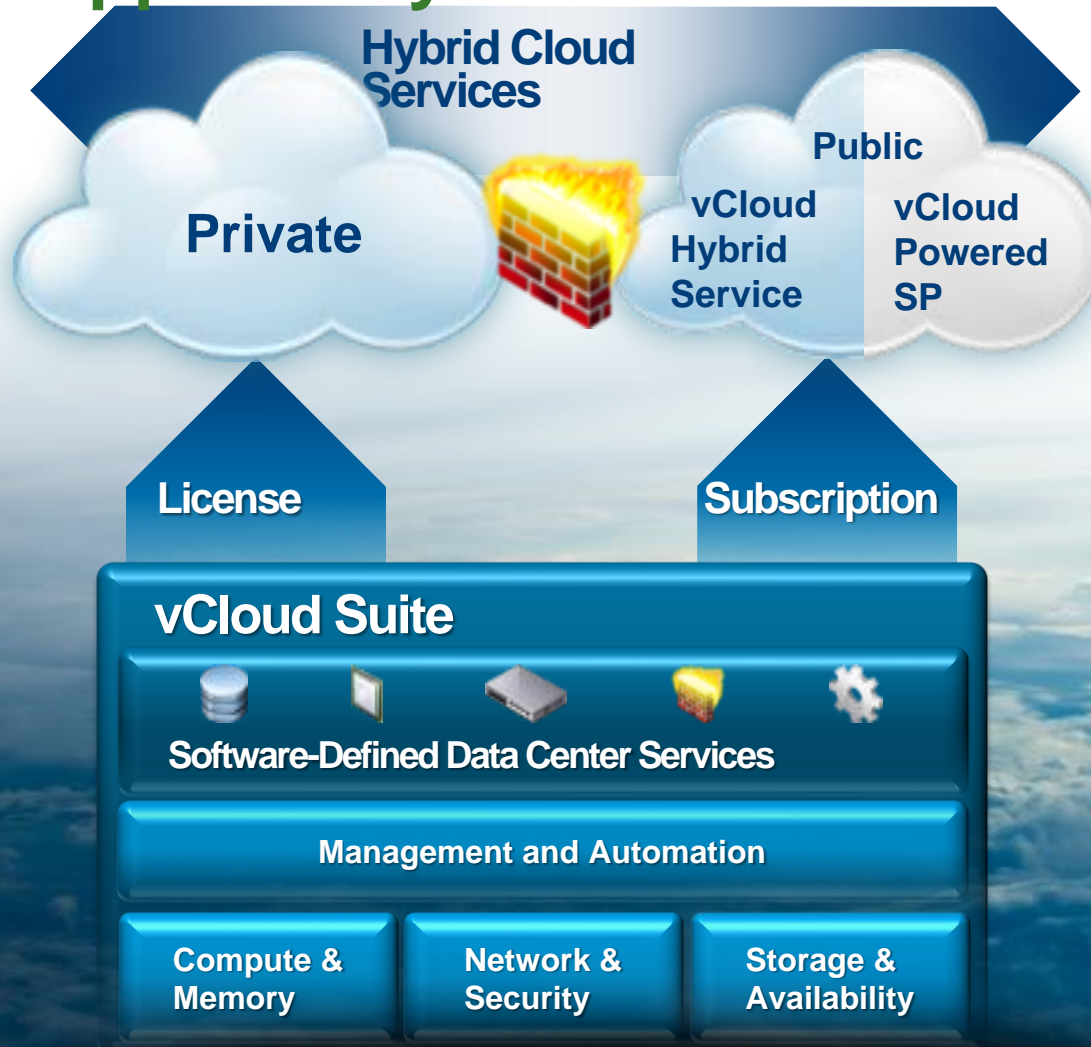
- **Enabling 480,000 customers to adopt Hybrid Cloud services**
- **Cloud Credits sold via Solution Partners**
- **220 certified Service Providers in 26 countries**
- **4 out of 5 Gartner IAAS Magic Quadrant leaders based on VMware**

Extending the Private Cloud to the Hybrid Cloud

Private Cloud

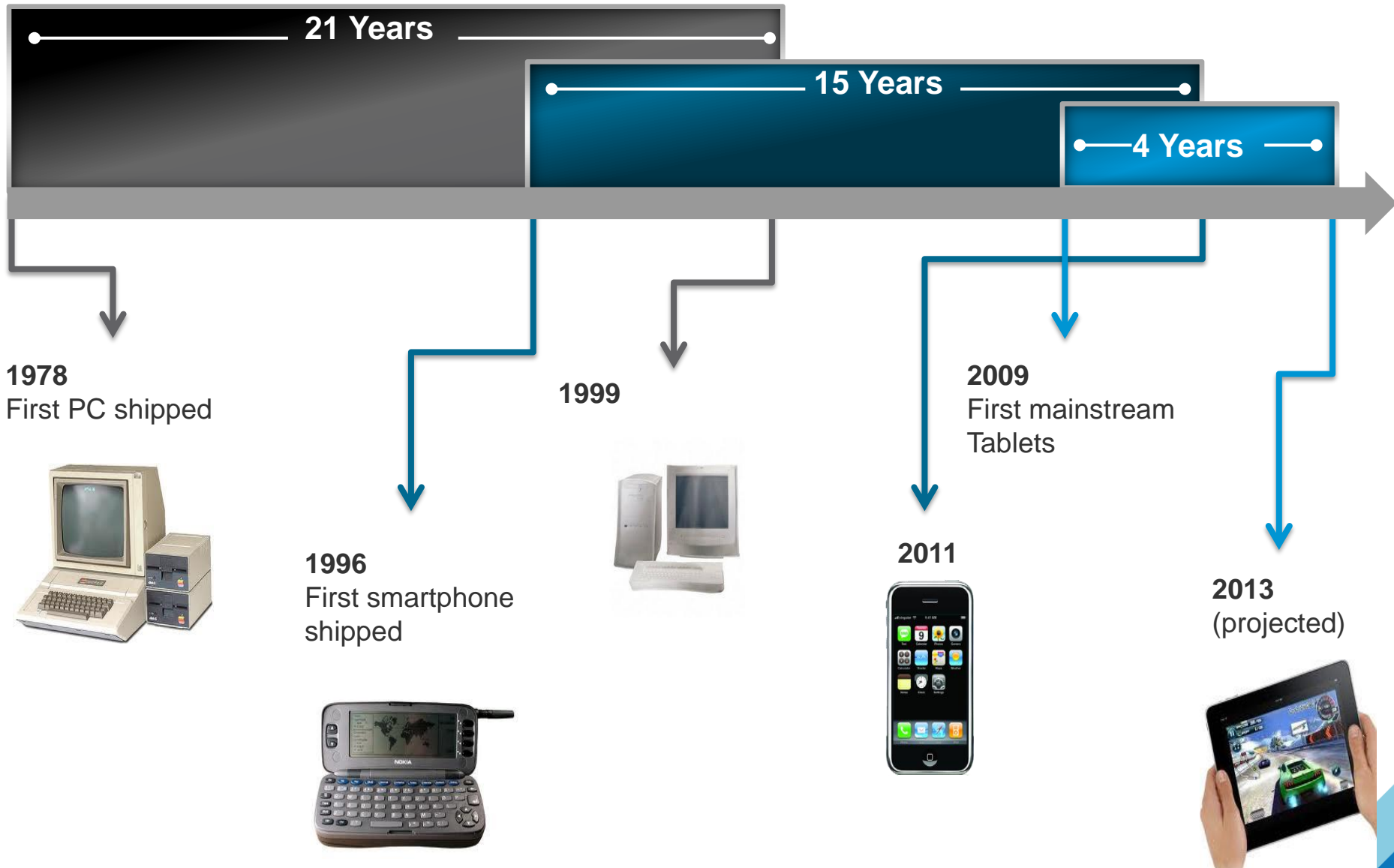**Public Cloud**

Common Management & Orchestration Platform

Unified Network Architecture

Seamless Extension of the Data Center

Common Security Model

One Support Call

Software-Defined Data Center

Software-Defined Data Center
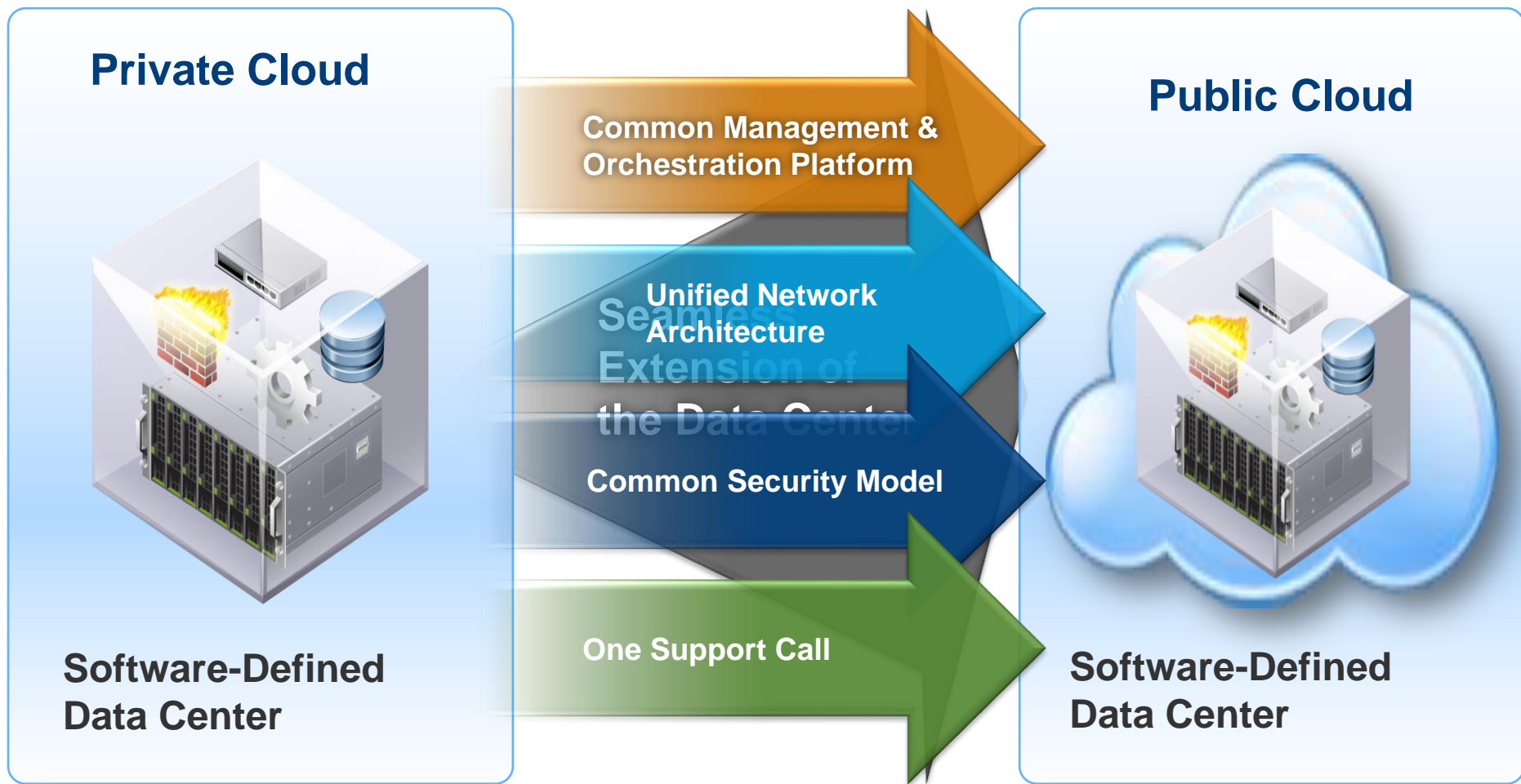
Any Application, Any Place… No Changes

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Time to Reach 100M Shipments Per Year

21 Years

15 Years

4 Years

1978
First PC shipped

1996
First smartphone shipped

1999

2009
First mainstream Tablets

2011

2013
(projected)

We focused and standardized, but change didn't stop

New
Device Platforms

- A new way to work
- Not just Windows anymore

New
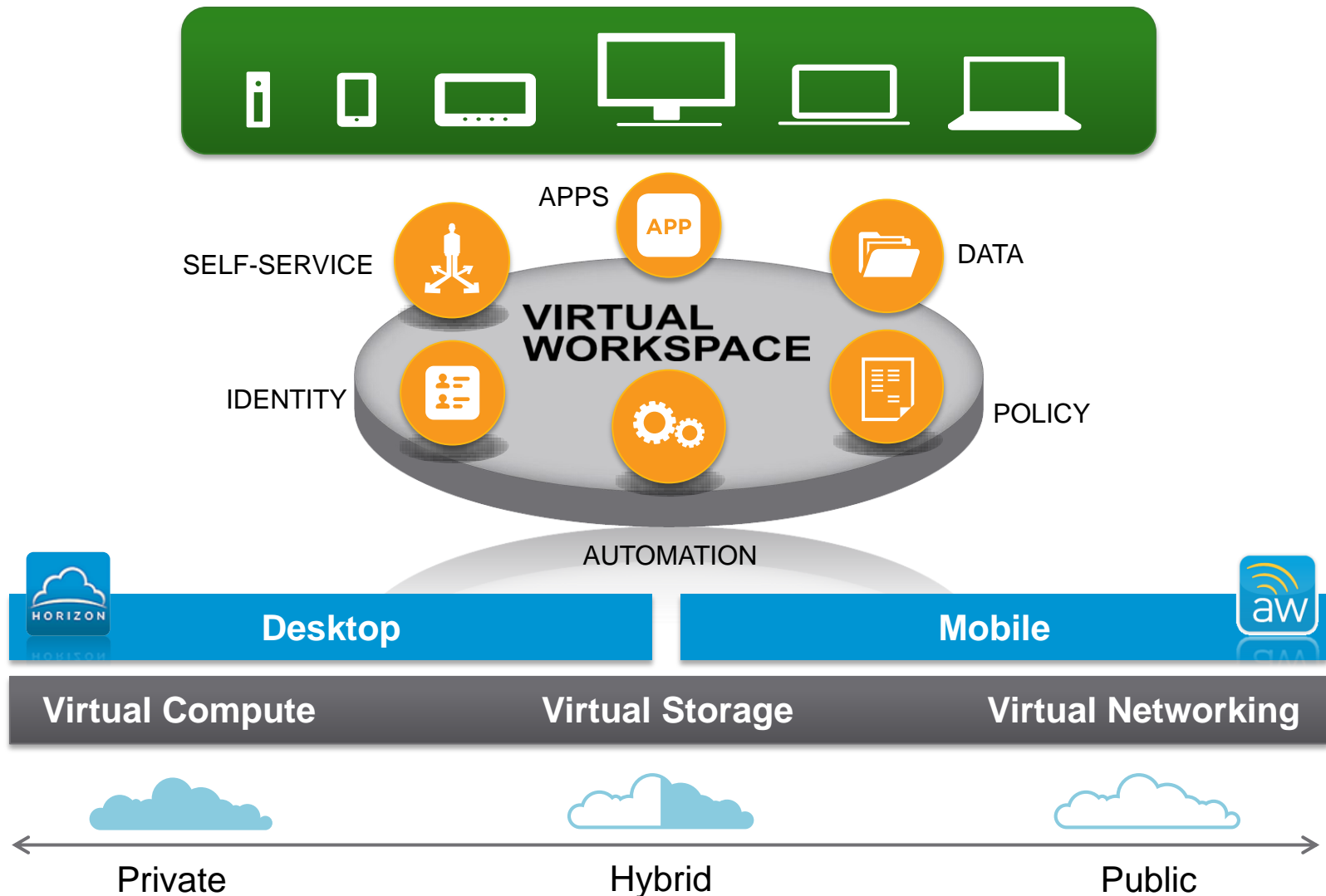## Apps

- SaaS, mobile apps
- Quantity is increasing

New
User Expectations

- Collaboration with partners, contractors, and customers
- Productivity through better technology

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These Challenges Require a Different Approach

SELF-SERVICE · APPS · DATA · IDENTITY · POLICY · AUTOMATION

VIRTUAL WORKSPACE

HORIZON · **Desktop** · **Mobile** · aw

Virtual Compute · **Virtual Storage** · **Virtual Networking**

Private · Hybrid · Public

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How to Give End-Users More Freedom and IT More Control ?

Consistent
access to Apps and Data
Separation
Personal / Business
Choice
of any Device

Truly Integrated
Management
Policies
that follow Users,
not Devices

for Users

for IT

VMware Horizon Suite – The Platform for Workforce Mobility

VMware Horizon Suite
Simplify, Secure, Empower

VMware Horizon Mirage

VMware Horizon View

VMware Horizon Workspace
(Apps, Data, Mobile)

Physical Desktops

Virtual Desktops

Multi-Device Workspace
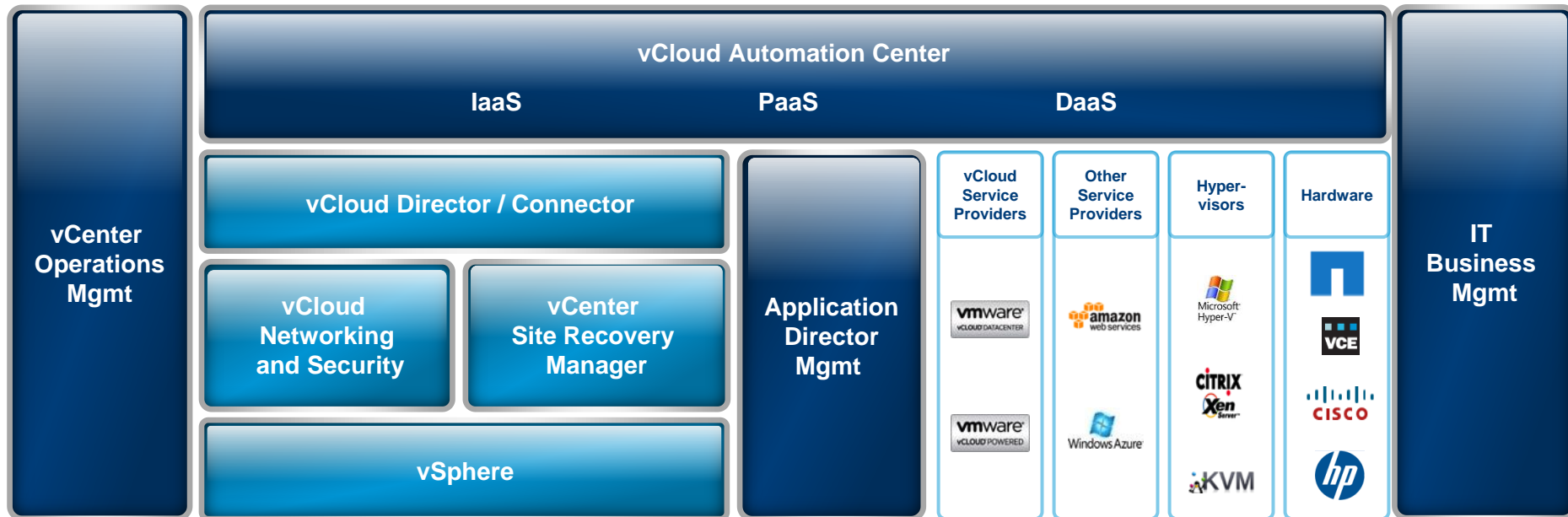
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VMware Events 2014

- 3rd of June vForum 2014 Regensdorf (Zürich)

- June or September vForum in Lausanne (Date TBD)

- 24th – 28th of August, VMworld US 2014, San Francisco

- 14th – 16th of October, VMworld Europe 2014, Barcelona

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Thank you

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