Disclaimer

- This presentation may contain product features that are currently under development.

- This overview of new technology represents no commitment from VMware to deliver these features in any generally available product.

- Features are subject to change, and must not be included in contracts, purchase orders, or sales agreements of any kind.

- Technical feasibility and market demand will affect final delivery.

- Pricing and packaging for any new technologies or features discussed or presented have not been determined.

Agenda

1	Foundation Recap
2	State of the Union
3	Remote Office Branch Office (ROBO)
4	New Workloads – Pivotal CF – Big Data
5	Tech Previews
6	vCD Transition
7	EOA Reminders
8	Q and A

VMware Delivers:
The Foundation for the Software-Defined Enterprise

End User Computing	Desktop		Mobile
	Virtual Workspace		

Virtual Workspace

Applications	Traditional	Modern	SaaS

Software-Defined Data Center

Policy-based Management & Automation

Cloud Automation

Cloud Operations

Cloud Business

Virtualized Infrastructure Abstract & Pool

Compute Abstraction = Server Virtualization

Network Abstraction = Virtual Networking

Storage Abstraction = Software-Defined Storage

Hybrid Cloud
VMware & vCloud Data Center Partners

Private Clouds

Public Clouds

Physical Hardware

Compute

Network

Storage

4

What Are We Trying to Do Now? vSphere Can Bridge the Gap

Today's Data Center

Traditional Applications

- Legacy Apps
- On-Prem
- Traditional HW

Tomorrow's Data Center

Next Gen Cloud Applications

- Next Gen Apps
- Hybrid
- White Box
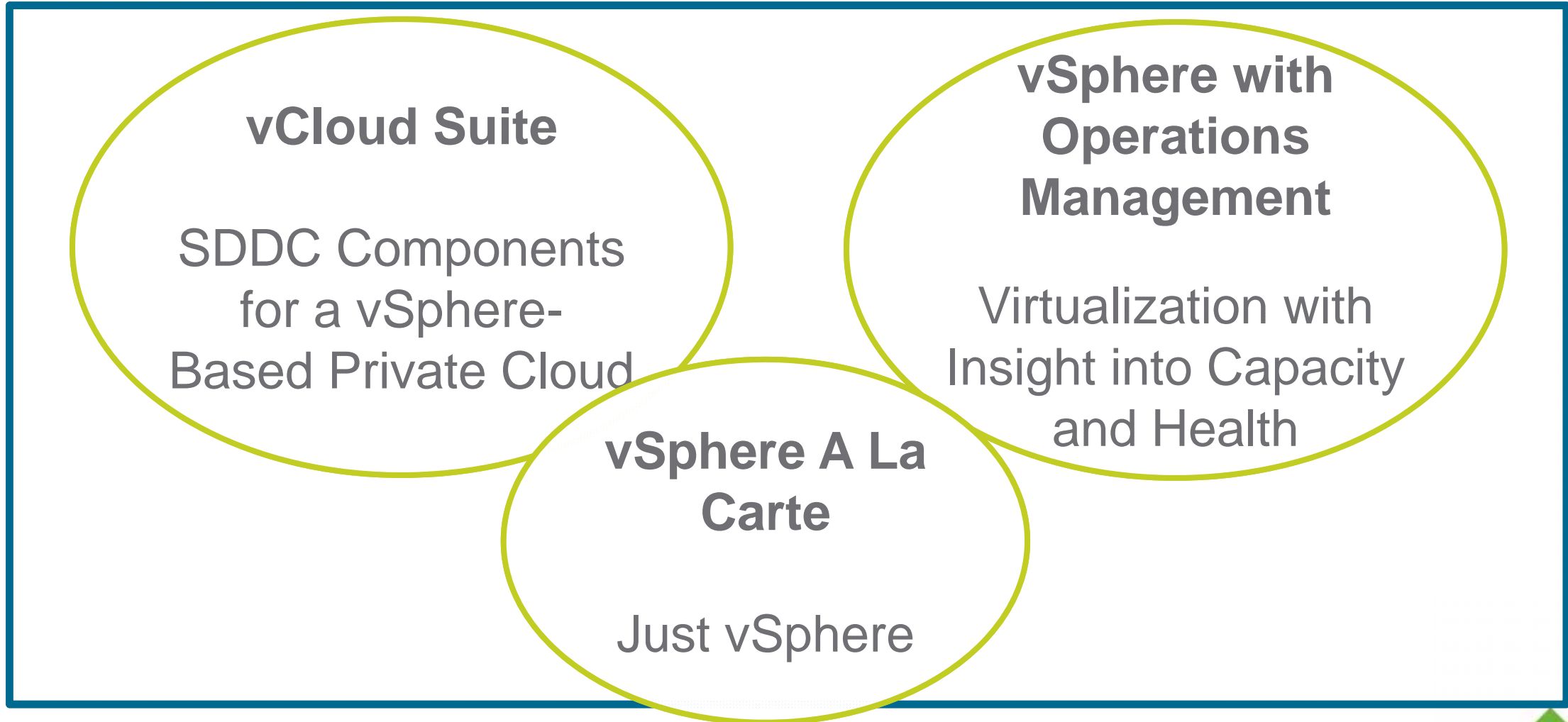
vSphere 5.5: What's New in 2013

New Features

- App HA
- Flash Read Cache
- Replication
- Backup and Recovery
- Big Data Extensions

New Customer Benefits

- High availability now tied to specific applications
- Accelerates performance for mission critical applications by up to 2x
- Ability to run Big Data applications on vSphere

vSphere Go to Market

vCloud Suite

SDDC Components for a vSphere-Based Private Cloud

vSphere with Operations Management

Virtualization with Insight into Capacity and Health

vSphere A La Carte

Just vSphere

State of the Union

vSphere Updates – Announcing at VMworld 2014*

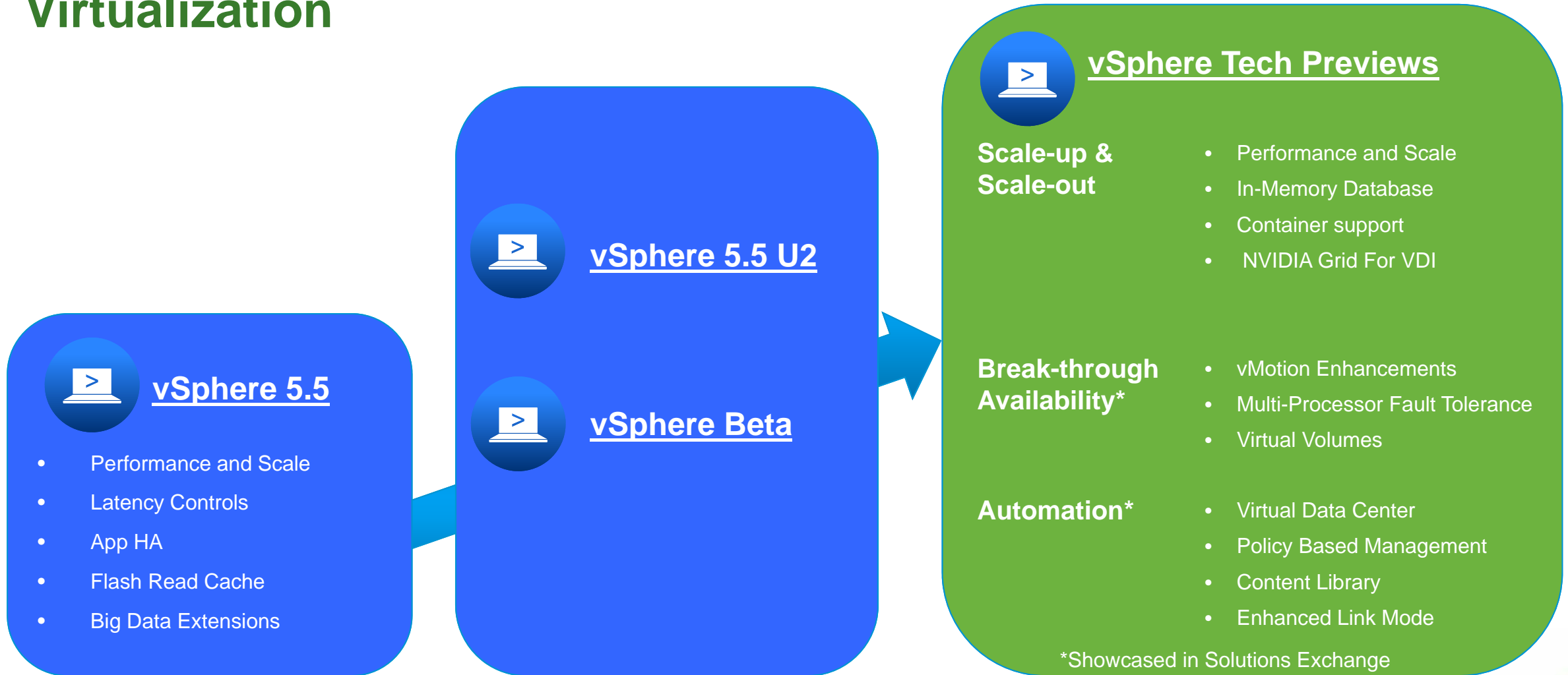| vSphere 5.5 Update 2*	- Support for the new vCloud Suite 5.8 - Additional updates and patches - Support for new hardware
vSphere for ROBO*	- New vSphere offering tailored for remote and branch office virtualization - Available in early September - Per VM licensing
vSphere Beta	"Open" program now allows sign-up directly by the end user - High response rate - Available since June 30

vSphere – Accelerating Market Leadership in Compute Virtualization

vSphere 5.5

- Performance and Scale
- Latency Controls
- App HA
- Flash Read Cache
- Big Data Extensions

vSphere 5.5 U2

vSphere Beta

vSphere Tech Previews

Scale-up & Scale-out

- Performance and Scale
- In-Memory Database
- Container support
- NVIDIA Grid For VDI

Break-through Availability*

- vMotion Enhancements
- Multi-Processor Fault Tolerance
- Virtual Volumes

Automation*

- Virtual Data Center
- Policy Based Management
- Content Library
- Enhanced Link Mode

*Showcased in Solutions Exchange

Past

Present

Future

vSphere 5.5 U2

Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015

vSphere 5.5 U1

vCD 5.5 U1

vSphere 5.5 U2
- Q3'2014 vCloud Suite
- 6TB host support
- Haswell EP legacy
- VC: Win 2012 R2, Oracle 12c, SQL 2012 SP1
- New GOSes
- Storage vMotion interop w. CBT

vCD 5.5 U2
- Oracle 12c
- New GOSes

VMware vSphere Beta

- Help shape the future of vSphere

- Gain visibility into features and technology that may be in upcoming versions of vSphere

- No nominations required. Open to everyone!

- http://www.vmware.com/go/vspherebetaq2

ROBO

Percent of Workloads Running Remotely

- On average, 24% of workloads are running at remote or branch offices

▶ **% of Workloads Running Remotely**

Remote or Branch Offices
24%

Datacenter
76%

N = 1601

▶ **by Region**

22%
NA
N = 567
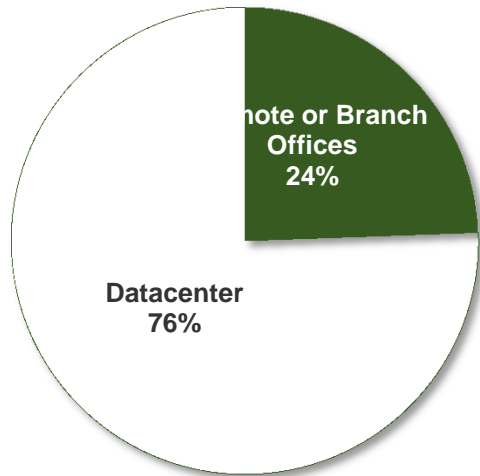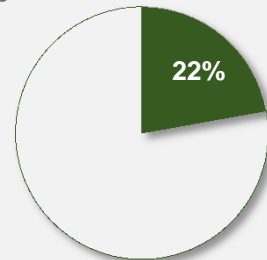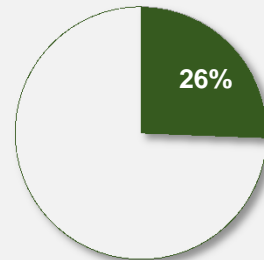
26%
Western Europe
N = 462
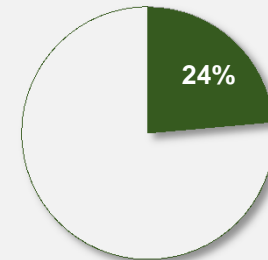
24%
Developed APAC
N = 218
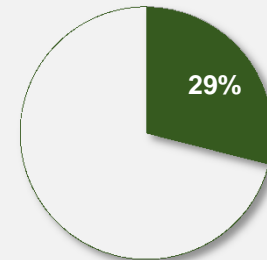
29%
BRIC
N = 354

▶ **by Company Size**

22%
SMB
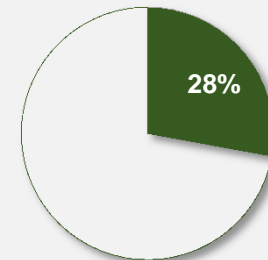N = 603

23%
COMM
N = 318

28%
ENT
N = 680

Status of Virtualization – VMware Study 2013
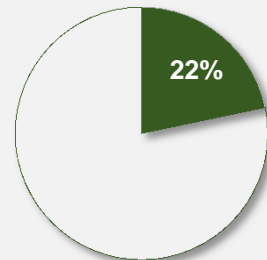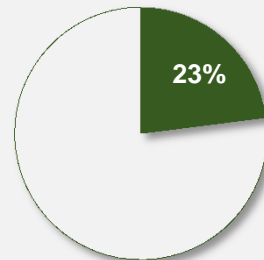
Typical Problems and Their Implications in Managing Remote Offices and Branch Offices

Lack of local IT staff, coupled with distributed nature of locations

- Scale is of a different nature, small number of servers across a large number of locations
- Speed of provisioning and management of multiple sites centrally or remotely becomes important
- Ensuring consistent, compliant and secure configurations and maintaining these configurations becomes critical for operational ease

Network connectivity, a single point of failure

- Survivability and availability of workloads that serve local needs is vital

Limited IT budgets

- Investing in specialized business continuity and compliance solutions/hardware becomes cost-prohibitive

Why Should I Virtualize My Server Workloads in Remote Office and Branch Office Sites?

HARDWARE ABSTRACTION

STANDARDIZATION

AGILITY

INFRASTRUCTURE LEVEL AVAILABILITY

COMPLIANCE
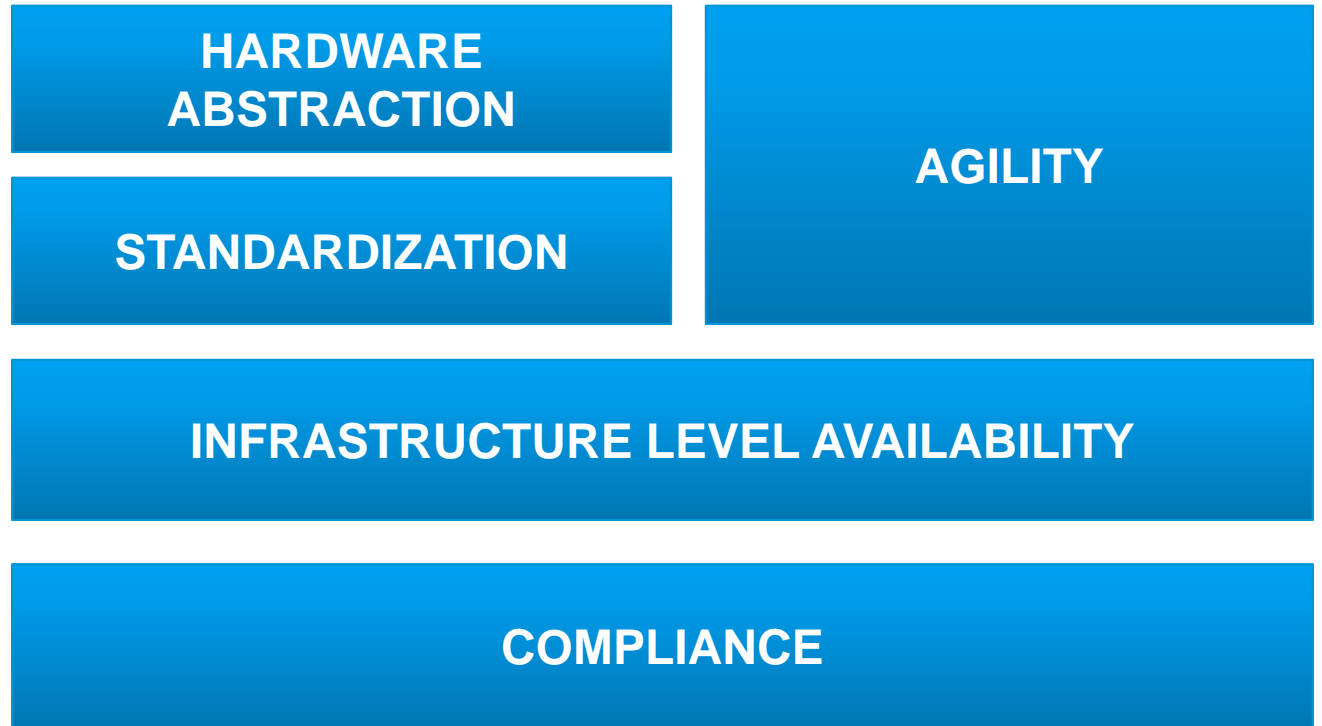
Introduction of New vSphere Remote Office Branch Office Editions

Name	vSphere Remote Office Branch Office Standard	vSphere Remote Office Branch Office Advanced
Licensing	• **Pack of 25 VMs**	• **Pack of 25 VMs**
Packaging	Features include: • vSphere Hypervisor • vSphere HA • vMotion • vSphere Data protection • vSphere replication • vShield Endpoint • **Fault Tolerance** • **Storage vMotion**	Features include: • vSphere Hypervisor • vSphere HA • vMotion • vSphere Data protection • vSphere replication • vShield Endpoint • **Fault Tolerance** • **Storage vMotion** • **Distributed Switch** • **Host Profiles/ Auto-deploy**
Usage	• **Maximum of 1 pack of either offering (NOT BOTH) per site (25 VM per site)** • **Customers can flexibly distribute pack VMs across sites**	

Customers can use existing vCenter Server Standard for central management by upgrading to Q3'2014 GA version or purchase vCenter Server separately
Note: All reference pricing above is suggested MSRP for the US, in USD

Pivotal CF

Platform as a Service (PaaS): Pivotal CF

Platform as a Service Running on VMware vSphere

Overview

- On-premise packaged software edition of Cloud Foundry
- Enables enterprises to install and manage a PaaS offering on vSphere infrastructure

Benefits

- Developers can now focus on application development and not infrastructure requirements
- Self-service
- Delivering and updating of applications at scale and the pace of business

Big Data

vSphere Big Data Extensions

Running Hadoop with ease and efficiency on VMware vSphere
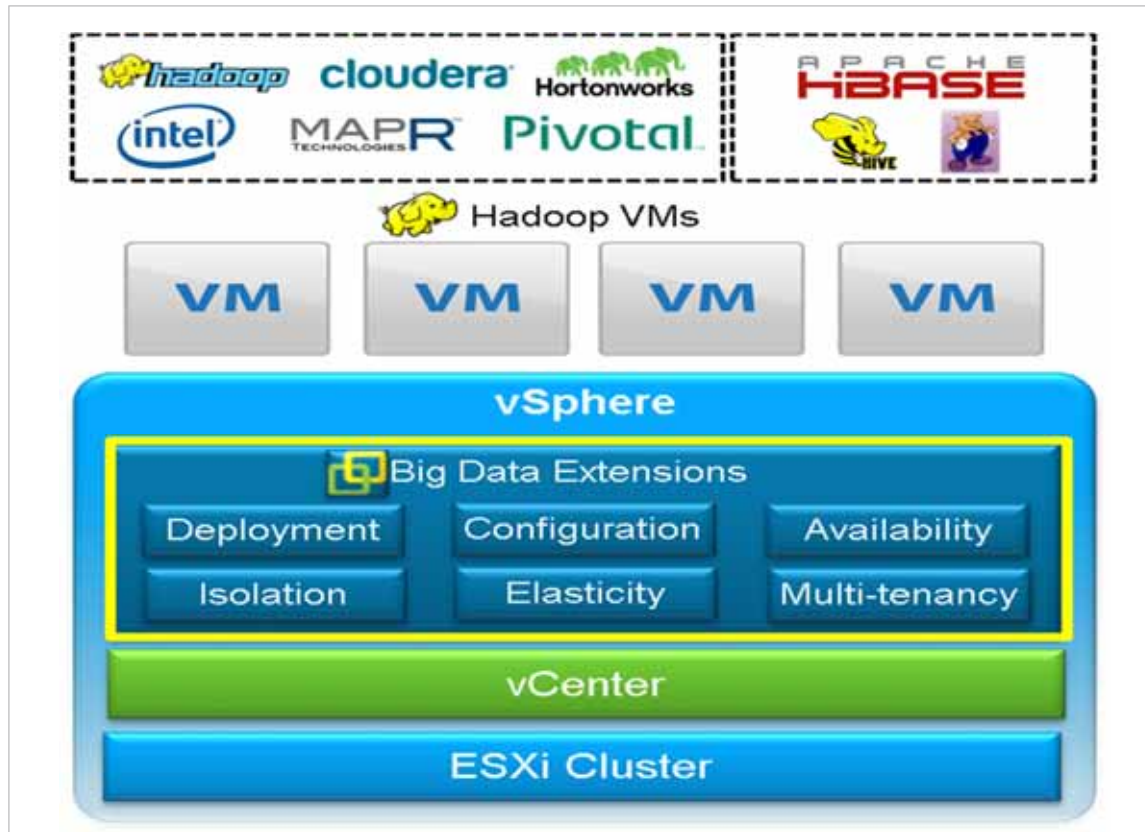
Overview

- vSphere extends support for Big Data workloads, including all major Hadoop distributions
- vCenter plugin with easy to use UI

Benefits

- Simple to deploy, manage, and operate Hadoop on vSphere
- Maximize resource utilization by running multi-tenant, elastic Hadoop
- Architect a scalable and flexible Big Data Platform

What's New In vCloud Suite 5.8

Improved business continuity and disaster recovery
- Self-service, policy-based provisioning of DR tiers
- Hyper-Converged storage for DR
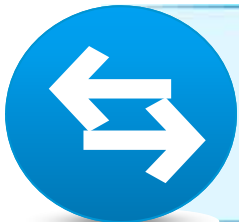- Increased scalability of protection and recovery capabilities

Enhanced next-generation applications
- Big Data Extensions support Hadoop 2 distributions with YARN cluster resource management

New proactive support
- Support Assistant, a free vCenter plug-in, identifies issues before problems occur
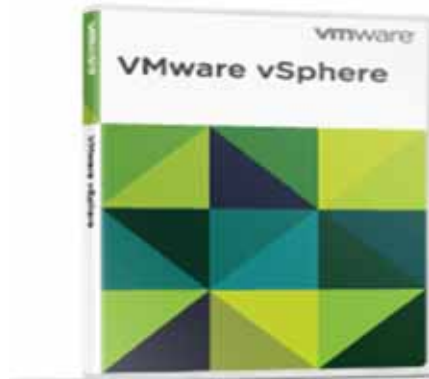
Improved interoperability with NSX
- Customizable provisioning of NSX firewall and routing services

Technology Previews

vmworld® **2014**

Compute = VMware vSphere (ESX and vCenter Server)

| Best Virtualization Platform	Run Today's and Tomorrow's Apps	Operational Efficiency at Scale
VMware vSphere is the most used virtualization platform	**Today's Data Center** — Traditional Applications: ORACLE Applications, SAP, Microsoft Dynamics, Java. **Software-Defined Data Center** — Next-Gen Cloud Applications: nodeJS, RAILS, spring, python Pivotal, Hadoop. Virtualize all x86 workloads	Fewer manual steps, more automation

vMotion Across vCenter Servers

Moving VM across vCenter Management Boundaries
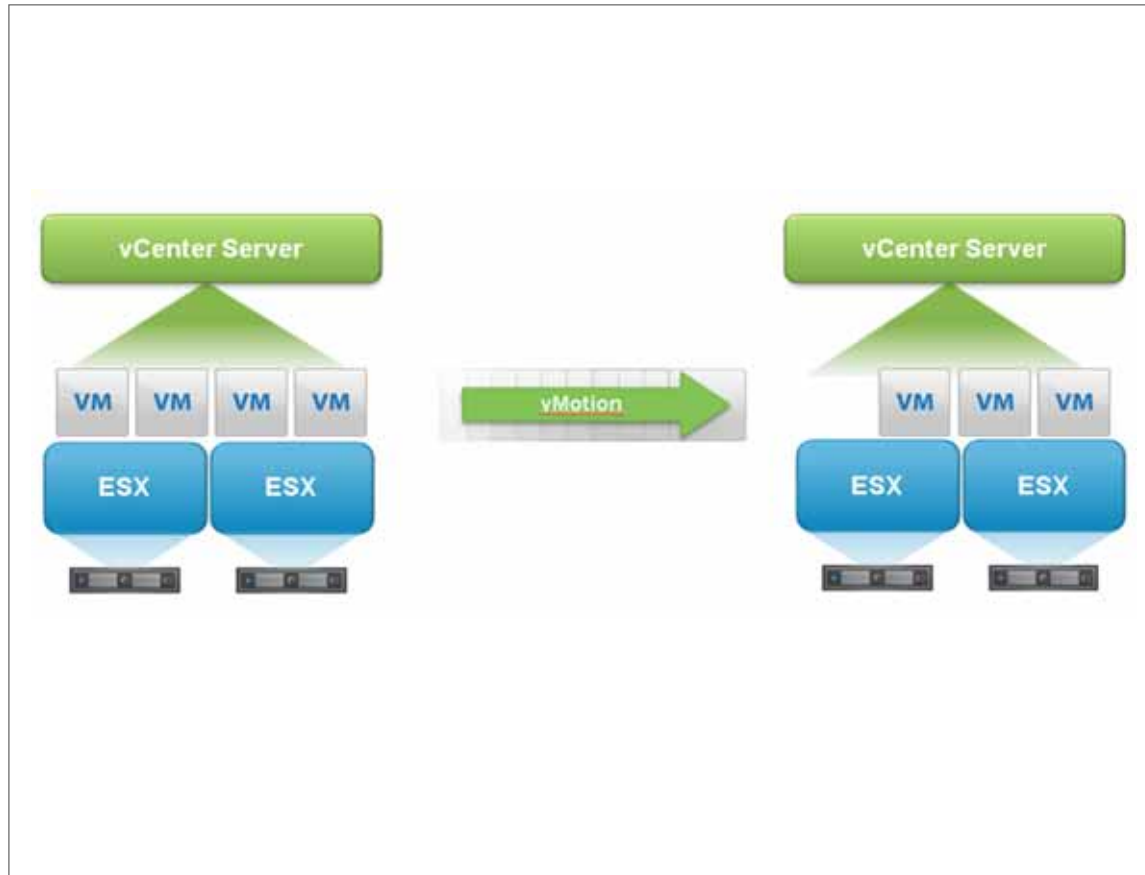
Overview

- vMotion across VMware® vCenter™ Server management boundaries
- Easily move VMs across vSwitches, folders and data centers
- Builds upon vMotion without shared storage

Benefits

- Simplifies vCenter Migration and consolidation
- Aligns vMotion capabilities with larger data center environments

Long-Distance vMotion

The Next Generation in vMotion Innovation

Instantaneous
Failover
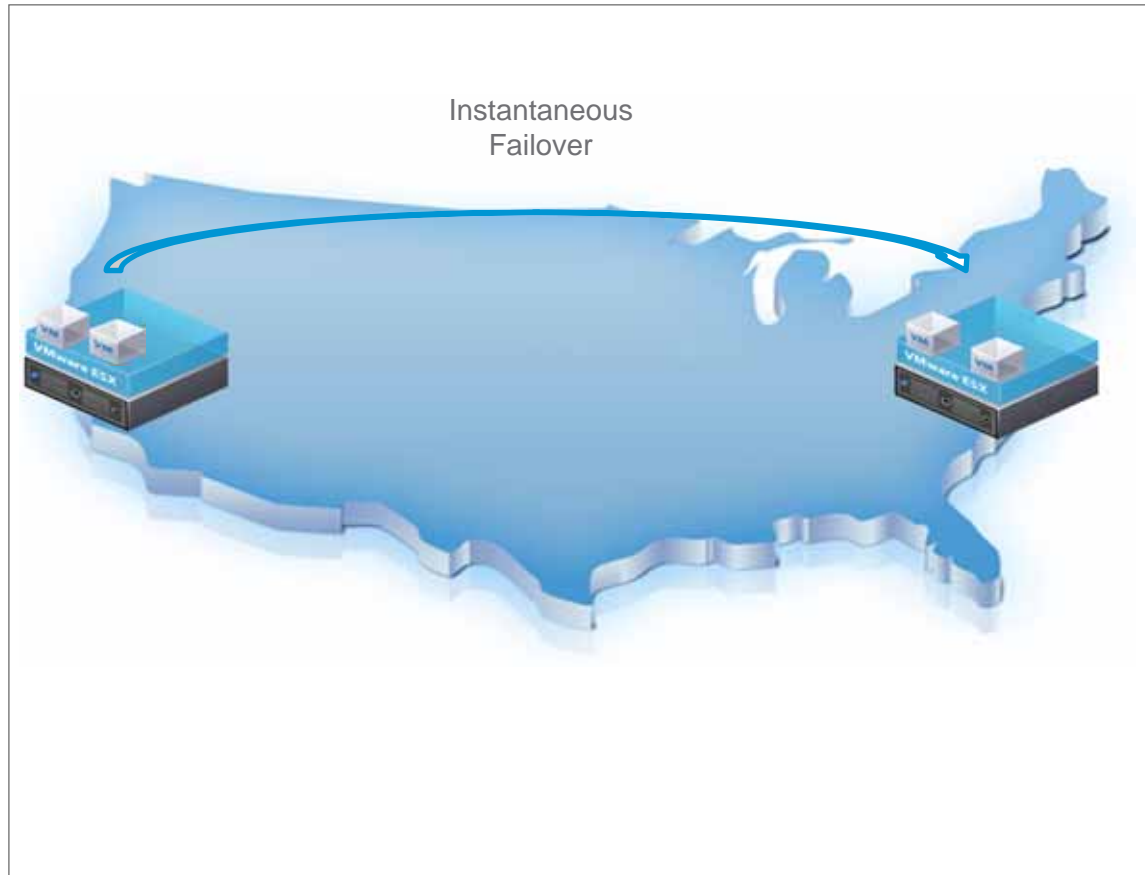
Overview

- Targeting cross-continental US distances –up to 100 ms RTTs
- Maintain standard vMotion guarantees
- Leader in VM flexibility

Benefits

- Permanent migrations between data centers
- Disaster avoidance (DA)
- SRM/DA testing
- Multi-site load balancing
- Follow the sun

Fault Tolerance for Multi-Processor VMs

Symmetric Multi-Processor Fault Tolerance – Multi- vCPU Support

Instantaneous
Failover

Fast Checkpointing

VM
4 vCPU

VM
4 vCPU

Primary

Secondary

vSphere
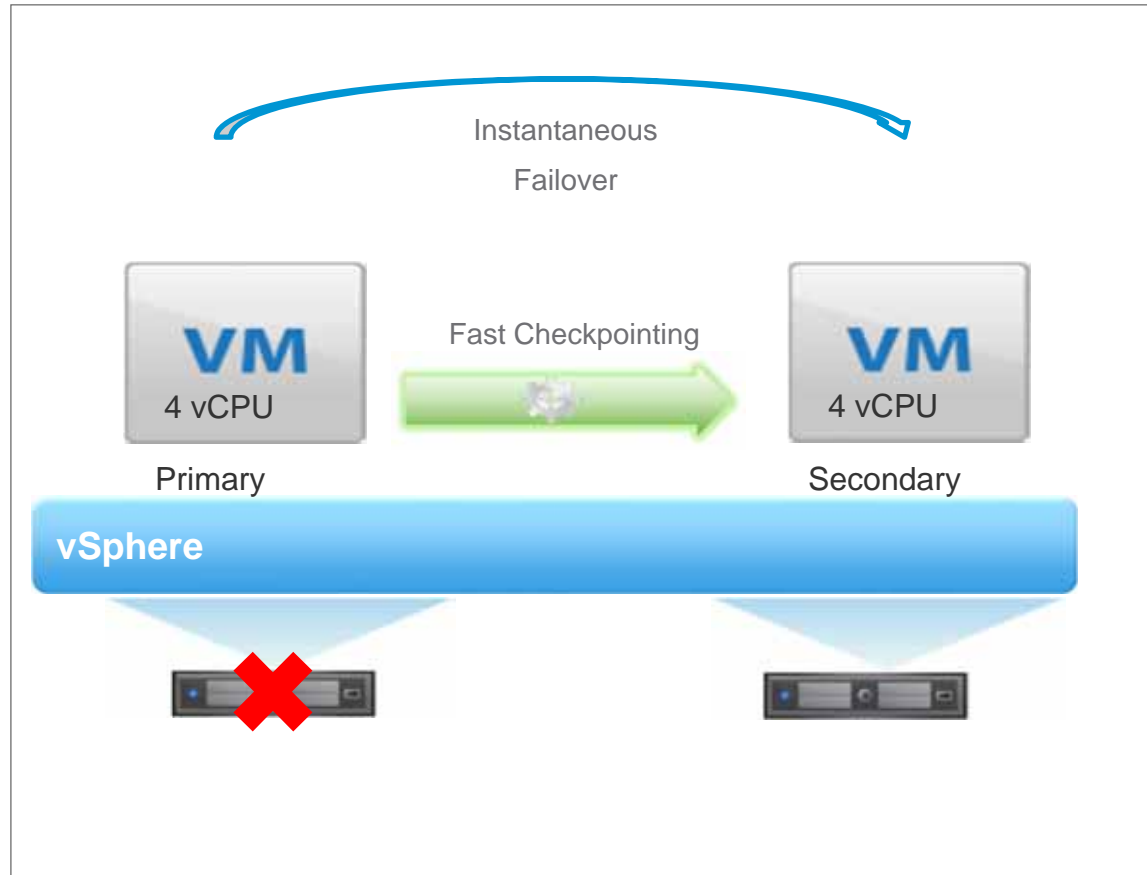
Overview

- FT support for up to 4 vCPUs
- Protection for high performance, multi-vCPU VMs
- New, more scalable technology: fast check-pointing to keep primary and secondary in sync

Benefits

- Protect mission-critical, high-performance applications regardless of OS
- Continuous availability: zero downtime, zero data loss for infrastructure failures
- Fully automated response

Host and VM Scale

Ensuring ESXi Scales to Meet Data Center Needs, from Enterprises to Hosting Providers

Overview

vSphere 5.1	vSphere 5.5	Future
160 pCPU	320 pCPU	320+
2TB Host Mem	4TB Host Mem	4+ TB
2048 vCPUs	4096 vCPUs	4096+
32 Nodes/Cluster	32 Nodes/Cluster	32+ Nodes
2TB VMDK	62TB VMDK	62TB+

Benefits

- Ensure the investment in ESXi scales with the needs of the data center
- Monster VMs to meet the needs of large in memory databases
- More VMs per cluster simplifies management

App HA and Component Protection

Detect and Recover from OS or Application Failure, Recover from APD / PDL
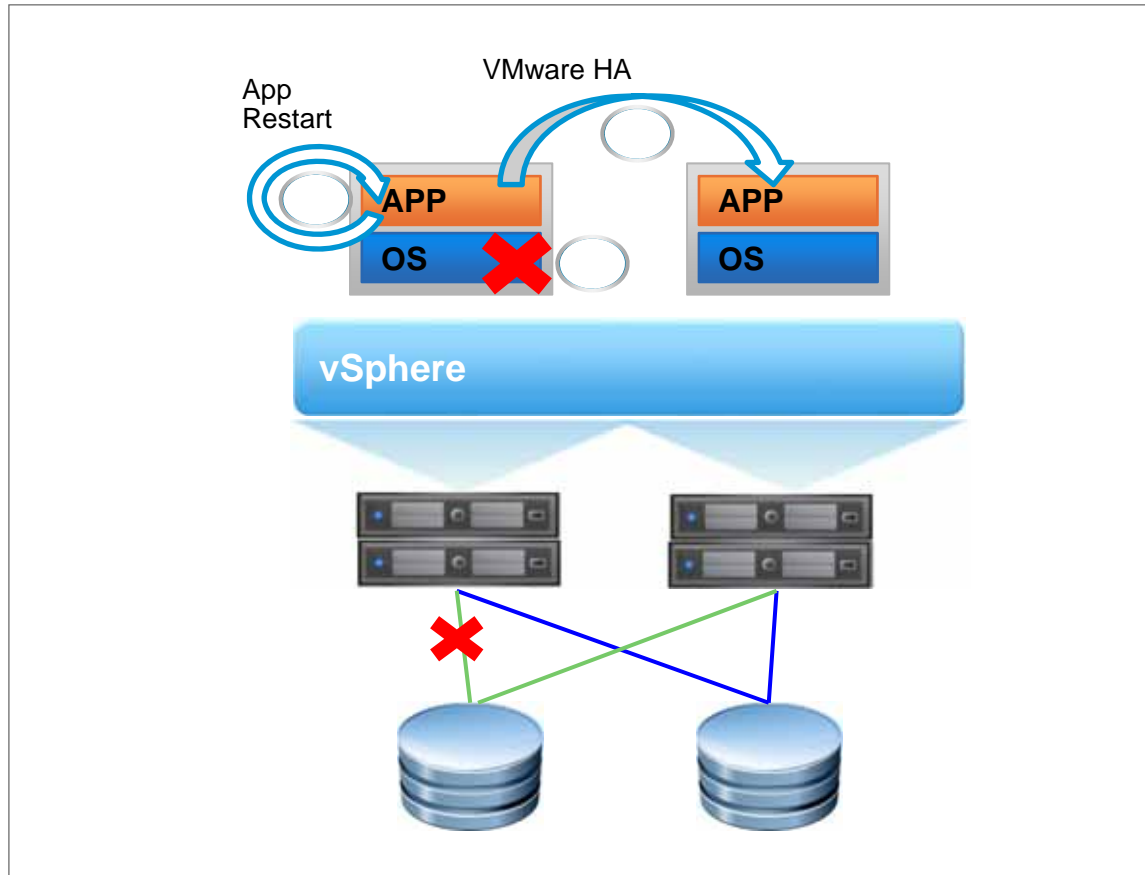
Overview

Available Now:

- Detect and recover from app or OS failure

Roadmap:

- Extensibility with app-aware APIs
- Better protection for storage connectivity issues

Benefits

- Simpler management through health visibility into vCenter
- Tier 1 application protection at scale
- Lower TCO than traditional app-specific solutions
- Smarter detection, remediation of all-paths-down & permanent device loss situation

Predictable Performance for Latency-Sensitive Apps


Lower Latency
Lower Jitter
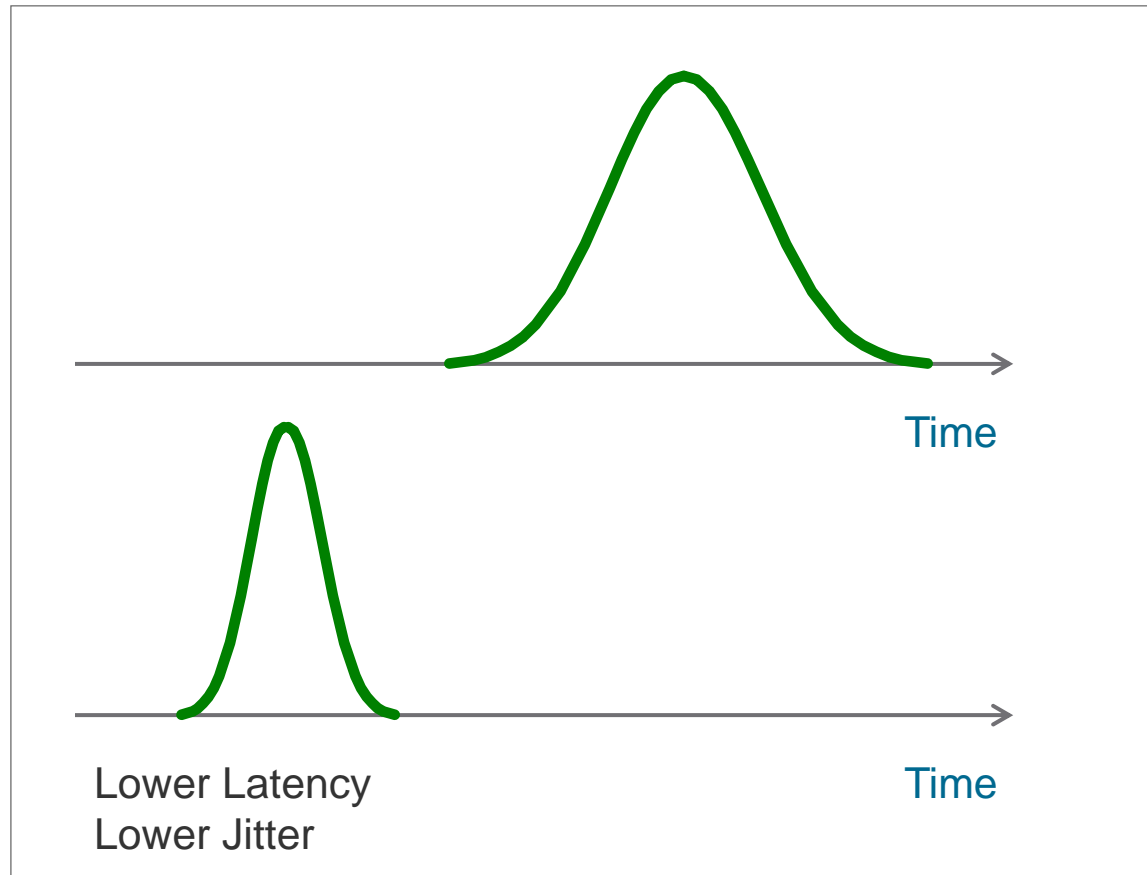
Overview

- vSphere supports latency sensitive and high throughput applications such as Telco network services and financial services trading applications

- vCPU affinity settings for low latency applications at VM level

- vMotion in-guest notification prevents interruption to latency sensitive applications

Benefits

- Significant performance and jitter improvement for I/O bound applications

- Live migration support of latency sensitive applications

Content Library

Store and Sync VMs, OVFs, and ISOs
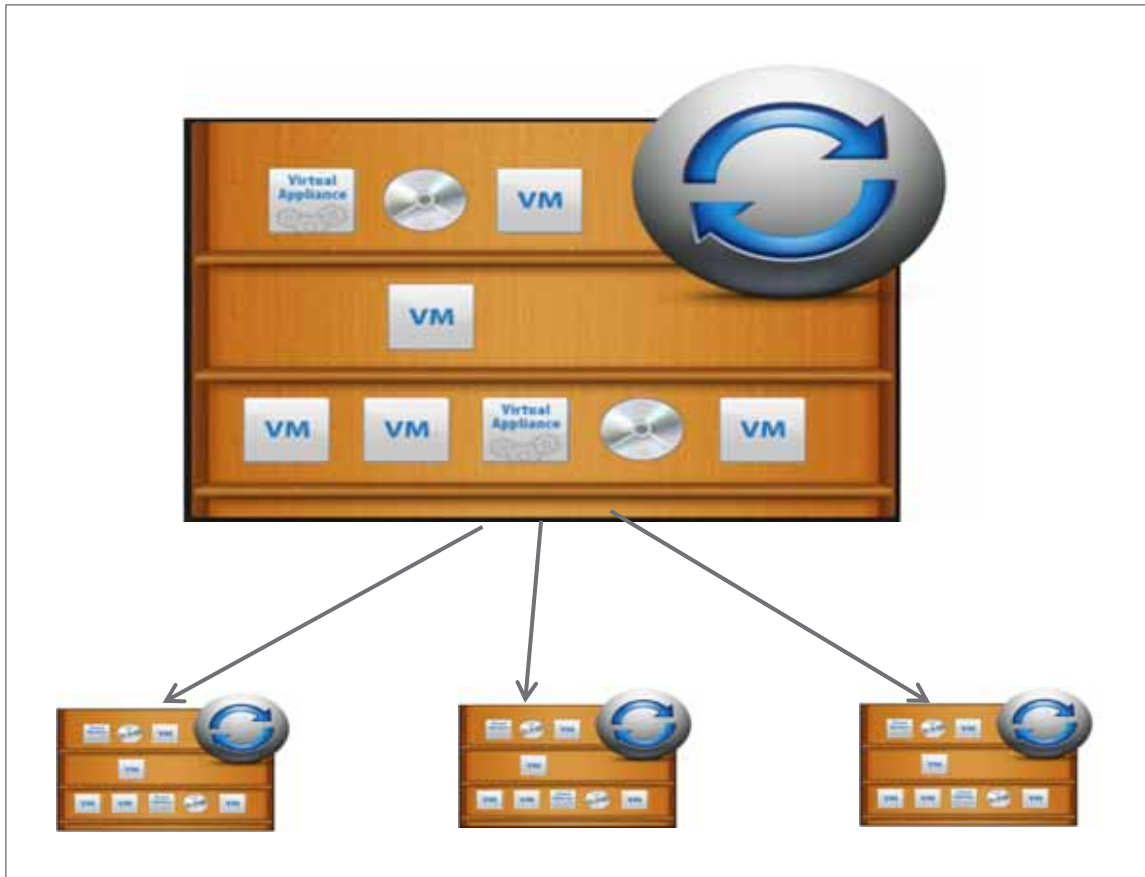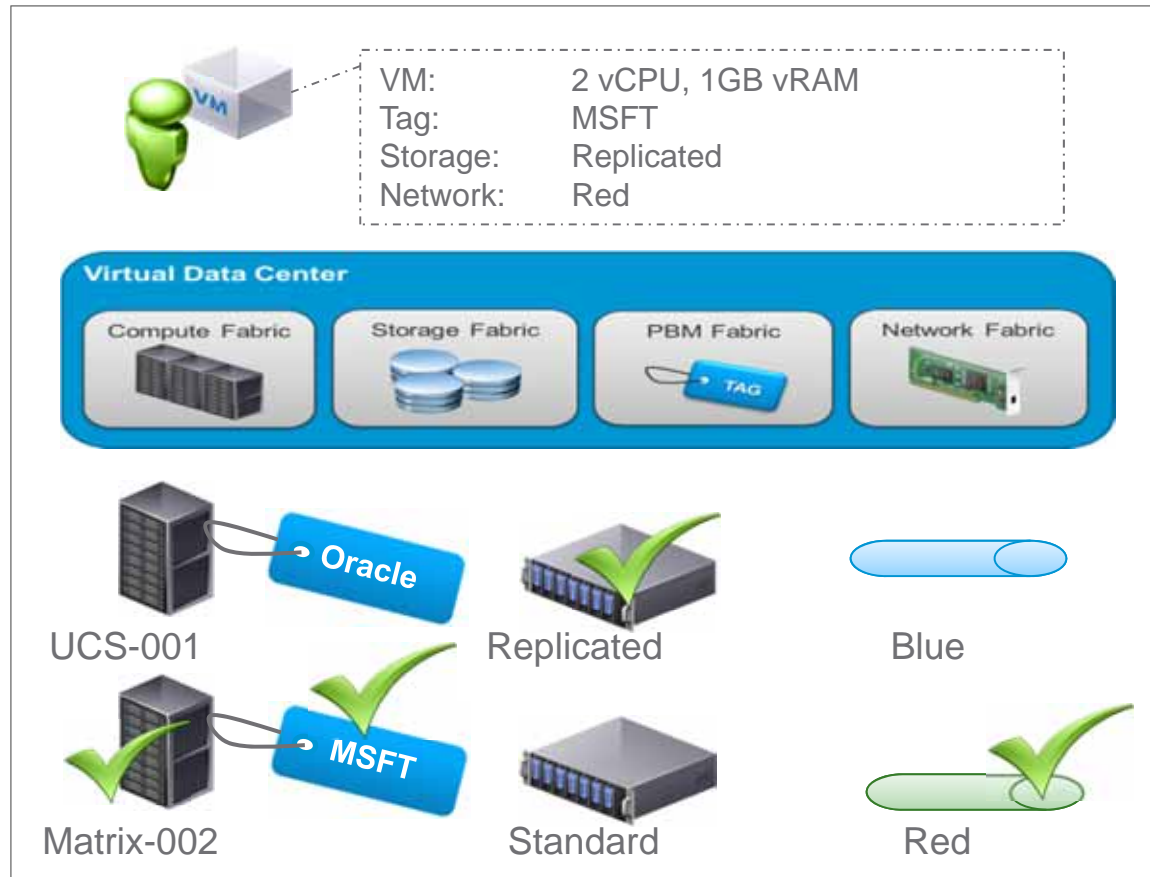

Overview

- Content Library provides storage and versioning of files including VM templates, ISOs, and OVFs.
- Includes powerful publish and subscribe features to replicate content
- Backed by vSphere Datastores or NFS

Benefits

- Simplifies management of templates
- Enables synchronization between local and remote vCenter Servers
- Also enables sync between vC and vCD

Virtual Data Center

Aggregate Resources and Simplify the VM Provisioning Experience

VM:	2 vCPU, 1GB vRAM
Tag:	MSFT
Storage:	Replicated
Network:	Red

Virtual Data Center

Compute Fabric | Storage Fabric | PBM Fabric | Network Fabric

UCS-001 | Replicated | Blue

Matrix-002 | Standard | Red

Overview

- Virtual Data Center aggregates compute clusters, storage clusters, networks, and policies
- Creates a unified resource pool for VM creation

Benefits

- Automate VM provisioning based on capacity and capability
- Intelligently place VM's based on policy
- Monitor VM policy adherence with automated remediation

Policy-Based Management

Policy-Based Management of the Virtual Data Center
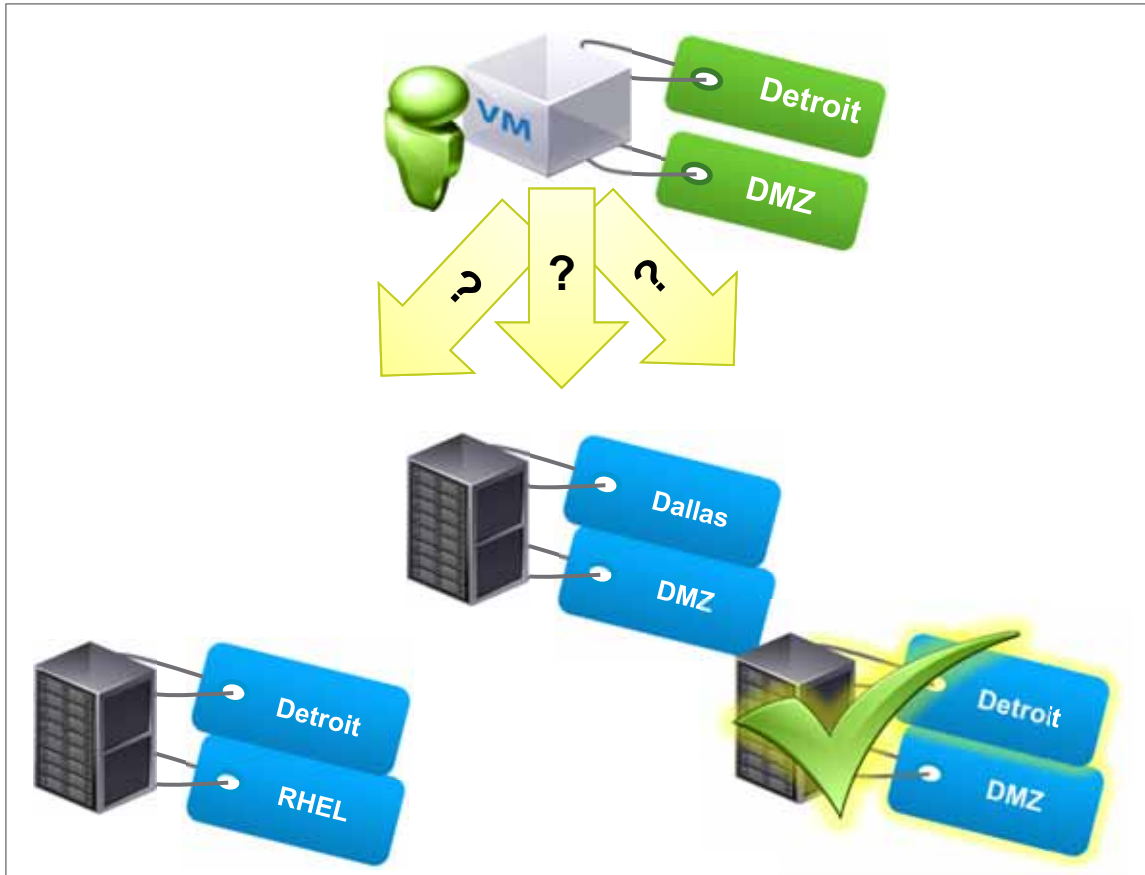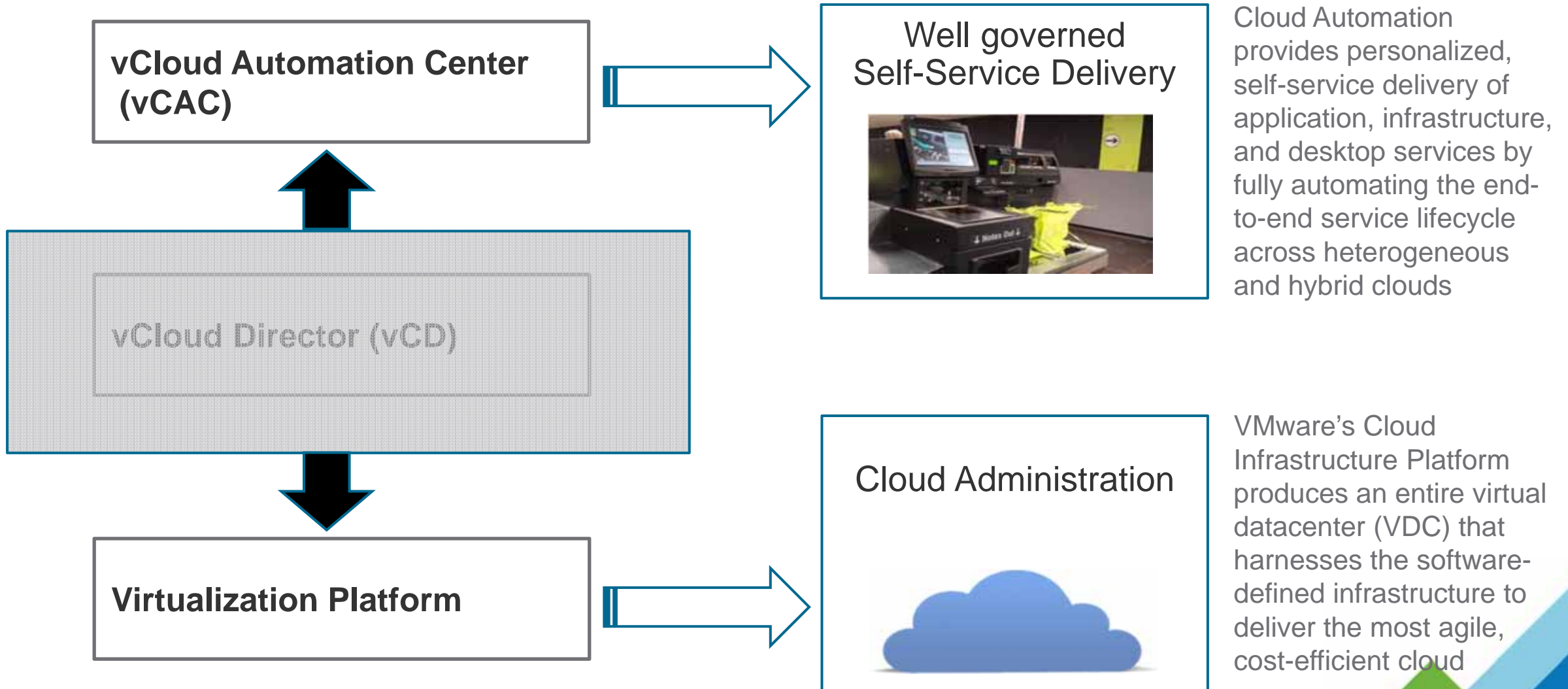

Overview

- Intelligent placement of VMs based on Tags
- Policy compliance checking with manual remediation
- Anti-affinity policies can be created and deployed at VM provisioning time

Benefits

- Automate initial VM placement without writing complex policies
- Ongoing operational efficiencies via policy-based remediation throughout VM lifecycle

VCD Transition

VMware's Plan to Reduce Complexity and Simplify the Cloud

vCloud Automation Center (vCAC)

Well governed Self-Service Delivery

Cloud Automation provides personalized, self-service delivery of application, infrastructure, and desktop services by fully automating the end-to-end service lifecycle across heterogeneous and hybrid clouds

vCloud Director (vCD)

Virtualization Platform

Cloud Administration

VMware's Cloud Infrastructure Platform produces an entire virtual datacenter (VDC) that harnesses the software-defined infrastructure to deliver the most agile, cost-efficient cloud

EOA Reminders

Keep These in Mind

- Recent
  - vSphere 4.x and Lab Manager EOS
  - Heartbeat EOA (June 2, 2014) and EOS Announced
  - SLES for VMware EOA and EOS Announced

- VMworld
  - Essentials/Essentials Plus ROBO SKUs EOA
    (new ROBO SKUs)

Q and A

Thank You

vmworld® 2014

Fill out a survey

Every completed survey is entered into a drawing for a $25 VMware company store gift certificate