

The Journey to the Cloud !



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EMC² ELECT 2013

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The world has changed...and moved on – THANK GOD !



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This is the past...lets not dwell on it !

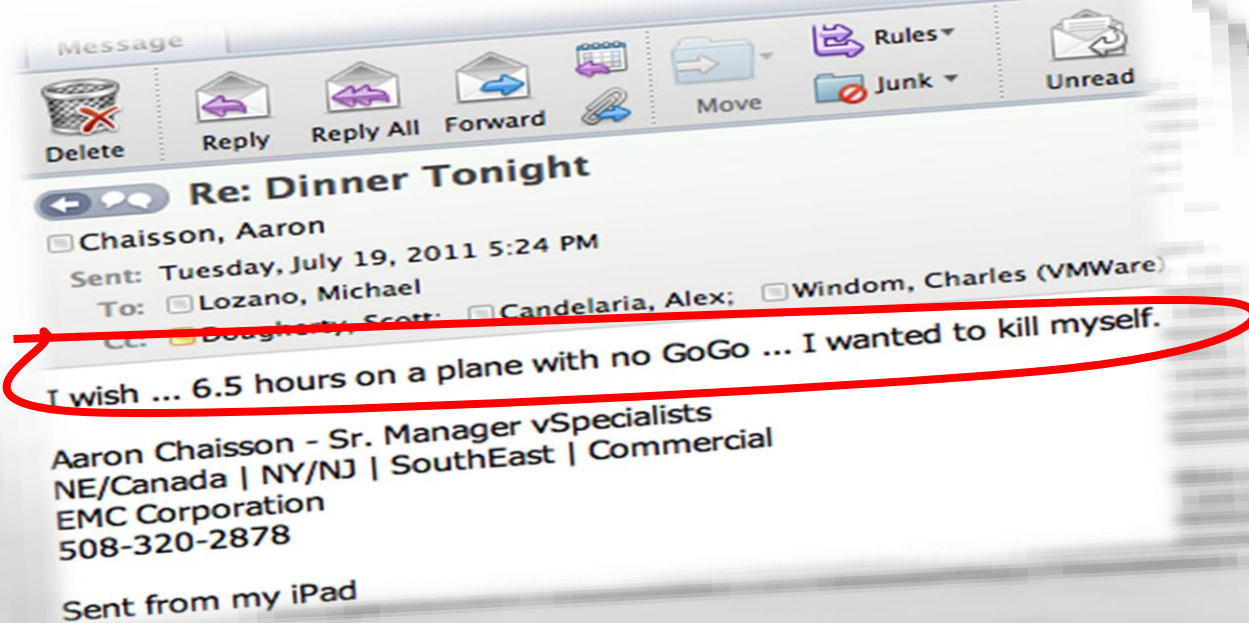


This is the future!...access anytime/anyplace



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Worker Mobility Is No Laughing Matter



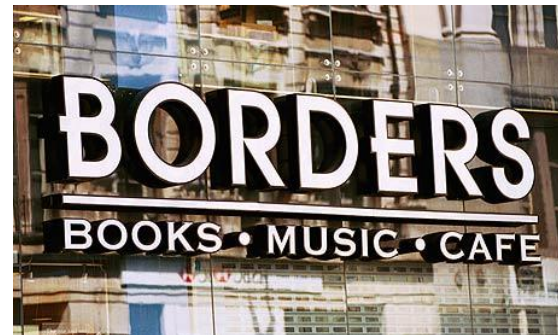
How much of our IT lives
have changed?

Paying Attention? Quick Poll !!

- How many people in the audience have a Smart Phone?
- How many people in the audience have a tablet of some sort?
- How many people in the audience have a laptop?
- How many of you have used ALL 3 today already ?



Yesterday...doesn't seem that far away!



Interesting Trends...



- Virtual servers surpassed physical servers in 2009...
- 50% of all IT budgets will go to SaaS providers and SP/Public clouds by 2016
- 50% of all storage will be in the cloud by 2016
- 52% of all X86 attached storage is attached to virtual servers today...

What Is Causing IT To Transform?



IT organizations must now **learn to compete** for their internal customers and halt 'shadow IT'

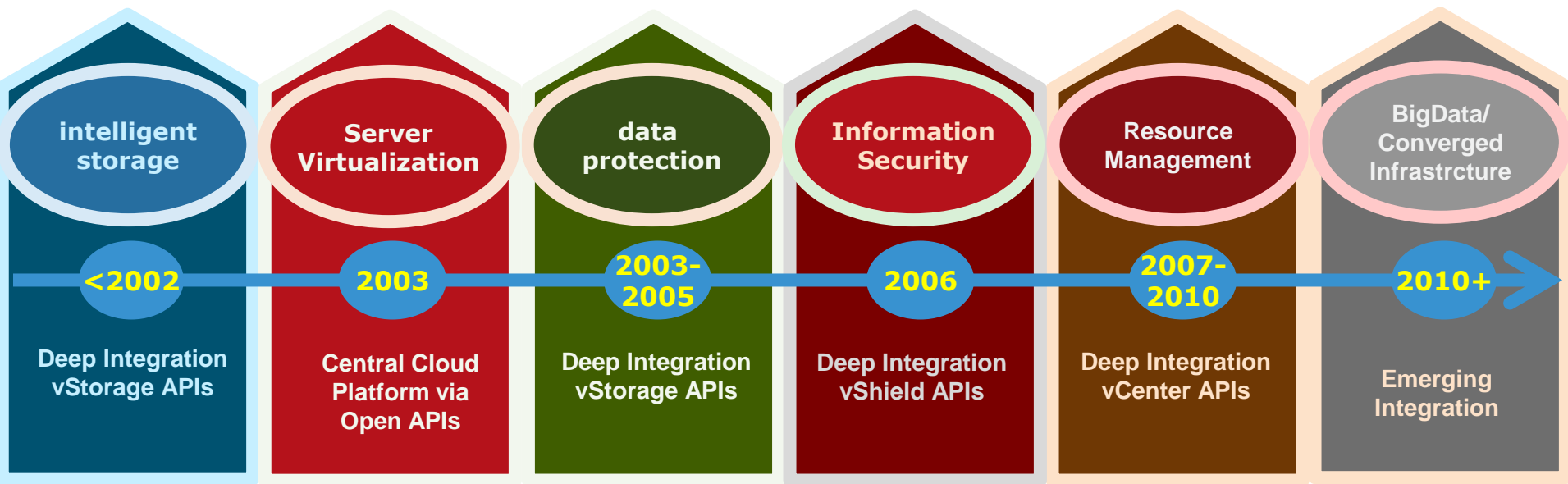
Soooooooo...If “Cloud” is here
Today
Transforming
My IT Model ...

... then Why am I talking
to EMC?

It's just a Storage
Company Right?

Cloud Technology

A Decade of EMC / VMware Innovations



Cloud Technology

A Decade of EMC / VMware Innovations

\$25B
8 YR INVESTMENT

Most VMware Integrations.
Highest Cloud Investment.

Source: Wikibon Analysis & Survey 2011

Deep Integration
vStorage APIs

Central Cloud
Platform via
Open APIs

Deep Integration
vStorage APIs

Deep Integration
vShield APIs

Deep Integration
vCenter APIs

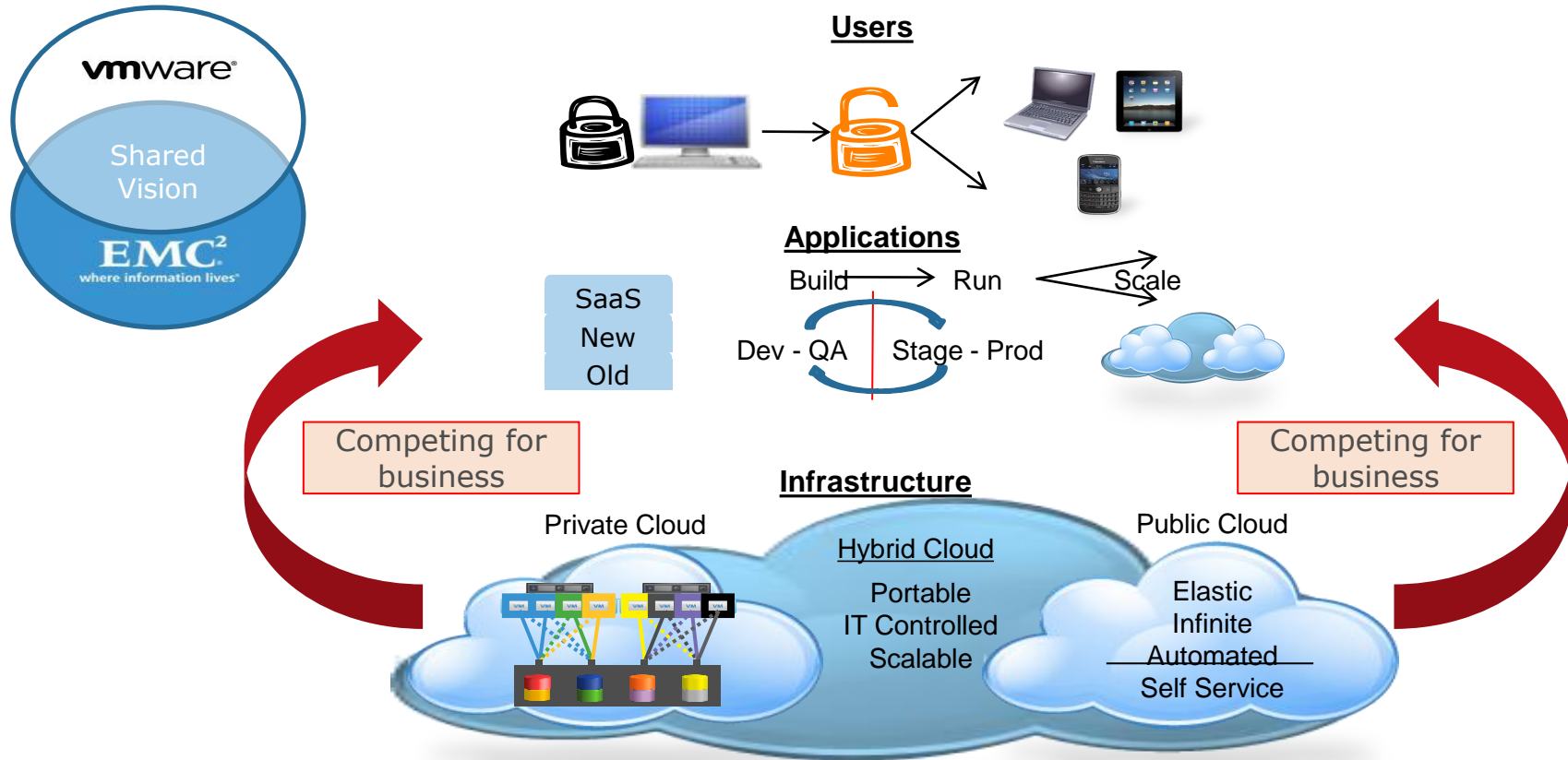
Emerging
Integration

↑ Agility

↓ Cost

Your Cloud

↓ Risk



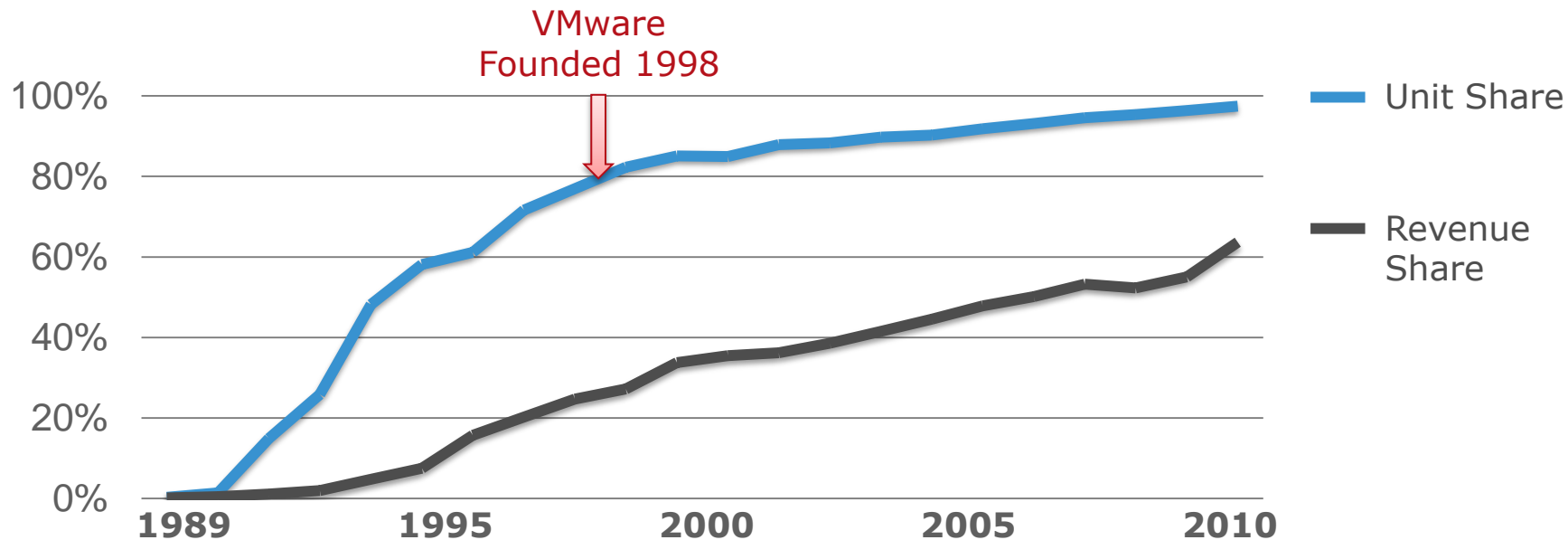
Infrastructure has been
transformed.

Recent technology evolution..



20 Year Dominant Market Share For x86

x86 As A Percent Of Worldwide Server Shipments



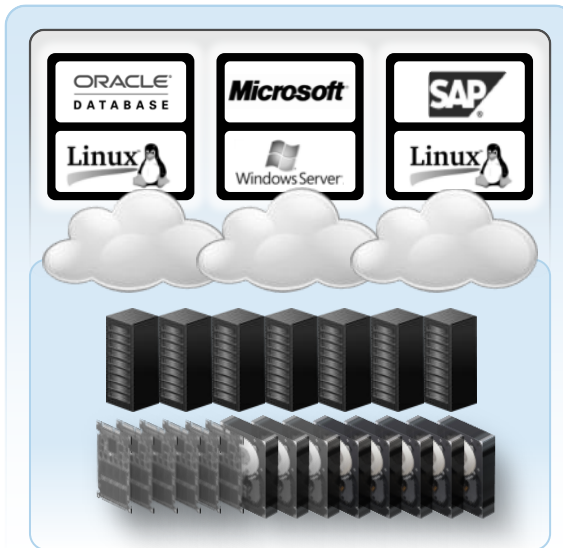
Containerizing standardized hardware passed compute up the stack

Source: IDC

Virtualization of Compute is Mainstream

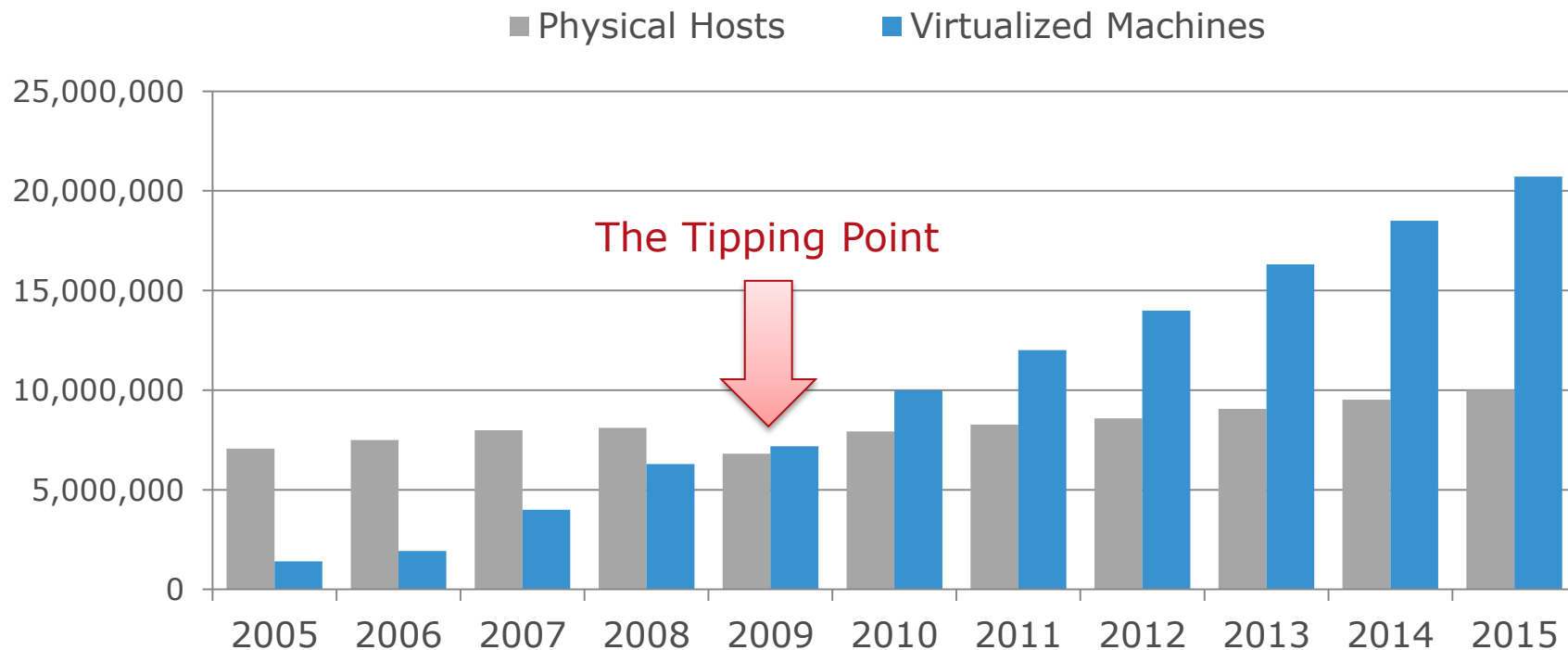


1 Standardize



2 Virtualize

VM Deployment Now Dominant

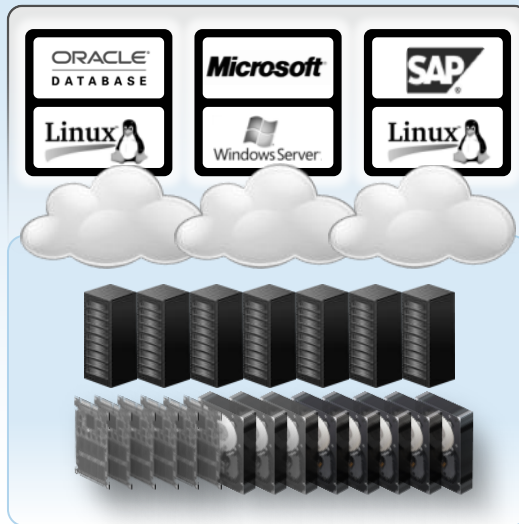


Represents All CPUs (x86, RISC, CISC, EPIC) Source: IDC Server Virtualization MCS, January 2012

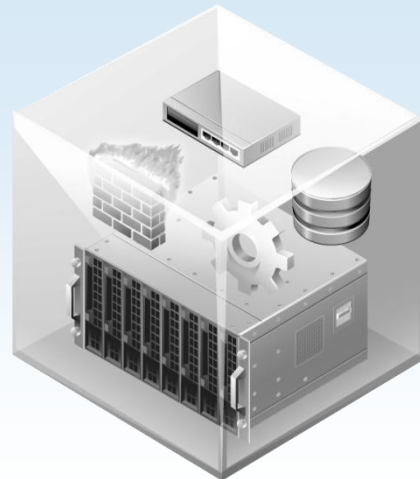
Automation Technology is here Today!



1 Standardize



2 Virtualize



3 Automate

Automation and Orchestration

- It's not about CLI's and batch processing.
- It's about on-demand infrastructure that grows and shrinks.
- Using programmable API's leveraged by new wave applications.
- It's about the emerging IT portal based ordering systems
 - Perfected over the past decade by online retailers



Portals and Orchestration

Fly-by wire/hands off broad ecosystem of Orchestration/Portals

DynamicOps



EUCALYPTUS



servicenow

Process and Orchestration portals can be bought...off the shelf and deployed in days !

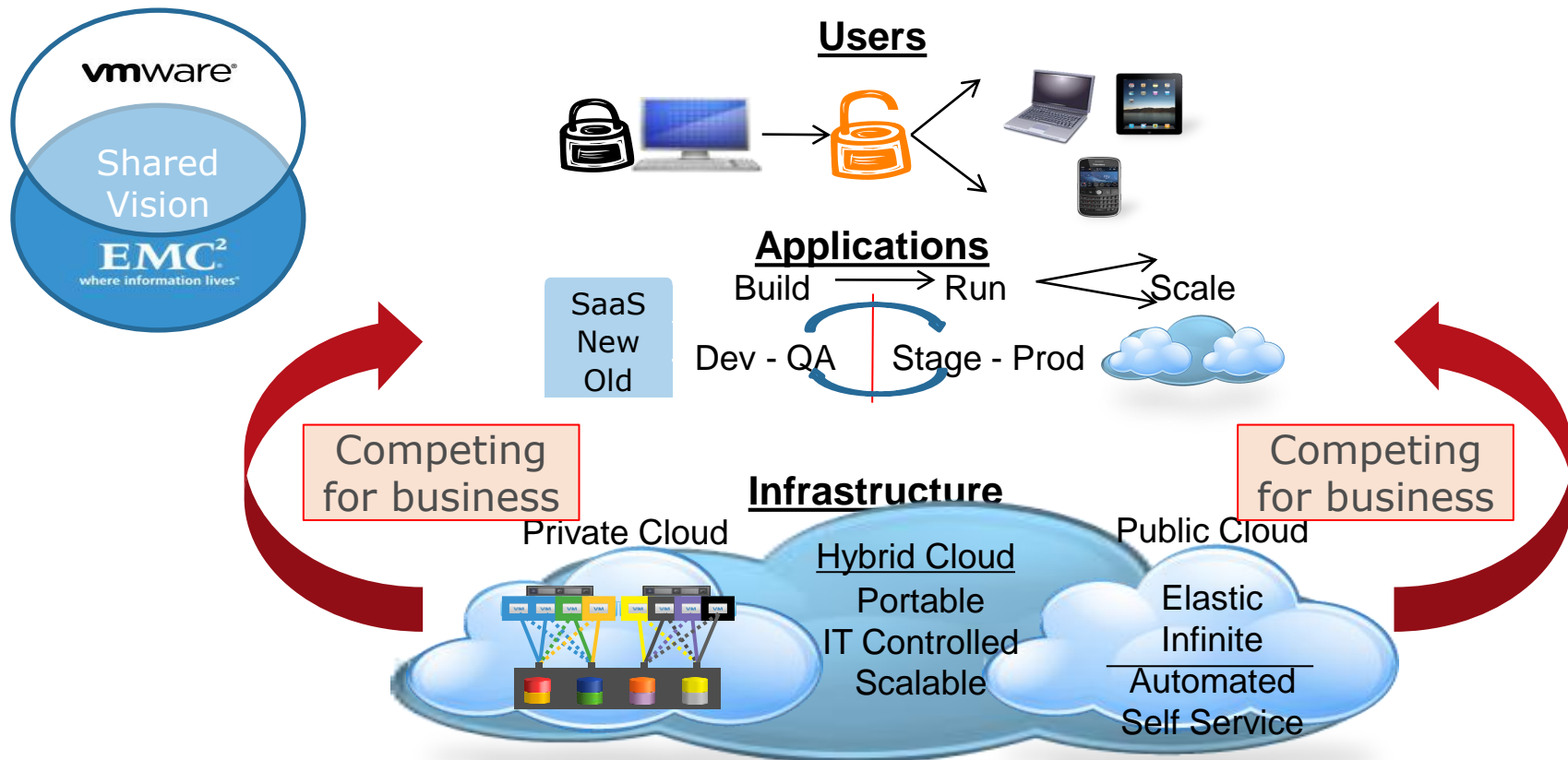
As a result ...
the Cloud question is
no longer “What is Cloud?”
It’s “How ... ?”

↑Agility

↓Cost

Your Cloud

↓Risk



Users

End User Computing

Legacy Apps

Data Analytics

Cloud Application Platform

Self Service Consumption

End User Shopping Cart type features

Service Catalog

Multi-Tenancy and
Per-Tenant Measurement

This is a Virtual Datacenter
How do you make this a cloud?

Cloud Infrastructure

Net

Svr/Hyper

Virtual Containers

Store

Backup / Recovery

Need to provide

Multi-Site Cloud Technologies
Federated

Cloud Storage
Archive / Rich Media

New growth YouTube.com example (cache/cheap)

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vmware

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Engineering – Solutions Guides – Joint go to market

EMC²

vmware

EMC²

EMC²

vmware

Self

vmware

otion

Front of House vs Back of House

vmware

Per

vmware

d ment

EMC²

EMC²

Multi-Si

EMC²

ologies

Ar

EMC²

EMC²

End User Computing ~ more then VDI

View

Horizon

ThinApp

Zimbra

Mozy

Legacy Apps – BestPractice Guides

MS

SAP

Oracle

Data Analytics

Green
plum

Hadoop

Cloud Application Platform

Spring
Dev framework

vFabric

Cloud
Foundry
OpenSource BLDG

vCloud Service Manager (portal/exchange admin)

vCloud API – 1st part

vCloud
Director
Operationalize

vCenter Chargeback

vOps

vShield Edge
Multi-tenancy

CapIQ

vCloud
Connector (my/ur cloud)

vCenter
Orchestrator

VMware vSphere

vCM
(compliance)

Unified Infrastructure Manager

Vblock

Avamar | Networker | DataDomain | DP

RecoverPoint | SRDF | Vplex

Atmos

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End User Computing

View

Horizon

ThinApp

Zimbra

Mozy

Legacy Apps

MS

SAP

Oracle

Cloud Application Platform

Spring

vFabric

Cloud Foundry

vCloud Service Manager

vCloud API

vCloud Connector

vCenter Orchestrator

vCenter Chargeback

vShield Edge

vOps

CapIQ

vCM

vSphere

The Security Division of EMC

Avamar | Networker | DataDomain | DP

RecoverPoint | SRDF | Vplex

Atmos

EMC²

End User Computing

View

Horizon

ThinApp

Zimbra

Mozy

Legacy Apps

MS

SAP

Oracle

Cloud Application Platform

Spring

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vCloud API

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vOps

CapIQ

vCM

vSphere

The Security Division of EMC

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Atmos

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Three Paths To Cloud



vmware®

EMC

Microsoft®


CITRIX®

intel inside™

CORE i3 CORE i5 CORE i7


Best Of Breed
Infrastructure Components

EMC VSPEX



Proven
Infrastructure

VCE VBLOCK



Converged
Infrastructure

Cloud roll out requires organizational & process change as well:

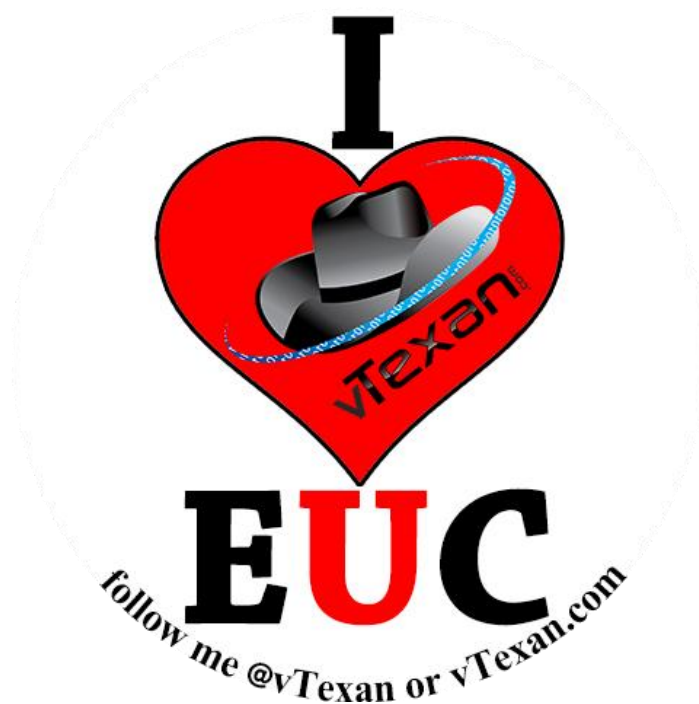
1. People – new organizations, new skills
2. Process – understand current workflows and refine/automate & publish
3. Technology – build for new service delivery models, i.e. 'cloud'

How Can EMC Help?

- We provide consulting around the journey
 - **Evaluate, Architect, Implement**
- Deep expertise with VMware solutions
 - **Build out the 'cloud stack' for automation & control**
 - **Unique product integration with VMware**
- Provide industry leading storage, backup, security & data analytics solutions (RSA, VNX, VMAX, Avamar, Data Domain, GreenPlumb, etc.)
- Provide converged infrastructure solutions with Cisco
 - **Vblock & VSPEX**
- Assist with next gen application development & replatform of old applications (vFabric)
- Provide Public Cloud solutions via our vCloud alliance with best of breed Service Providers

Thank You !!

Follow me on
Twitter: @vTexan
Blog: www.vTexan.com



EUC = End User Computing/VDI/Mobility