Virtualisation: Where are we now, and where do we go from here?

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VMware
March 2009
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Agenda

- Where Are We Today?
- Where Are We Going in the Future?
- How Are We Going to Get There?

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Who is Using VMware & What Are They Using it For?

100,000+ VMware customers

- 100% of Fortune 100
- 92% of Fortune 1000

85% use VMware in production

54% VMware as the default application platform

67% of all customers using central management in production

59% use live migration in production

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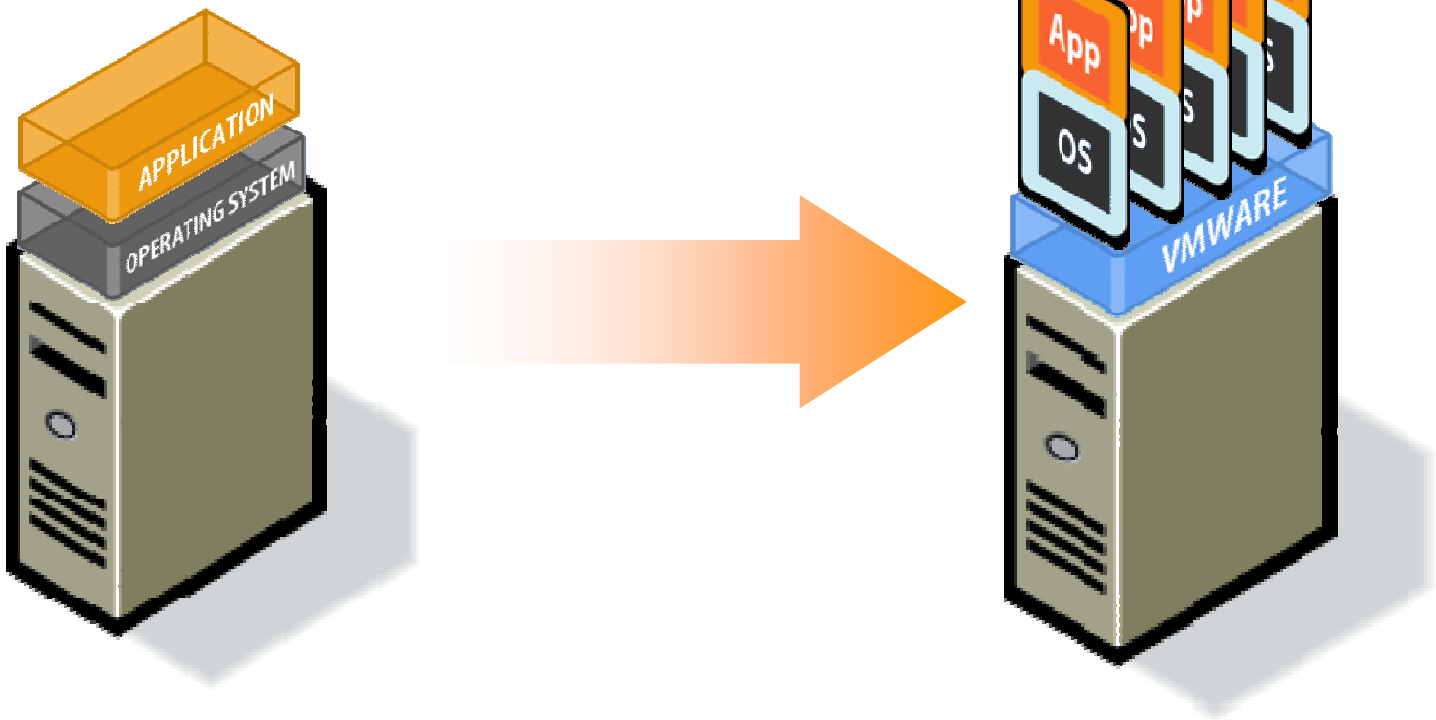
Changing the Nature of Computing



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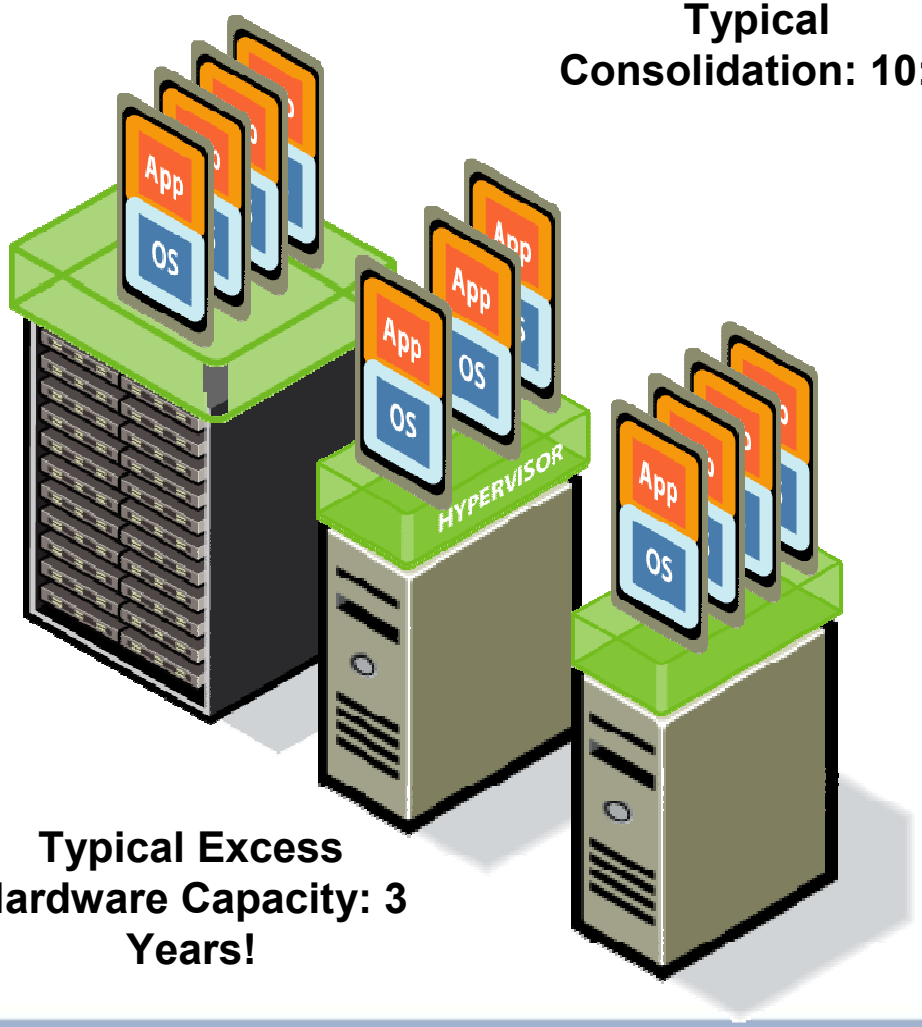
How Does it Work?

VMware…

- Decouples software from hardware
- Encapsulates Operating Systems and applications into "Virtual Machines"

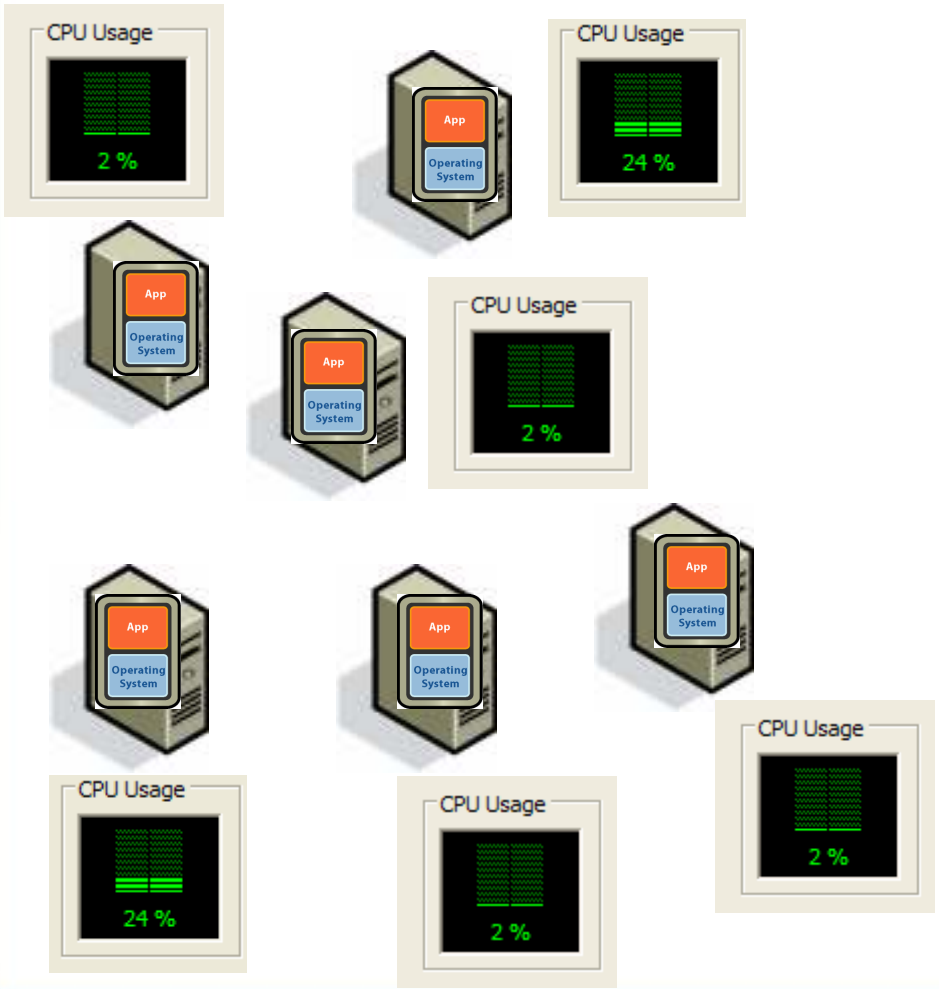
A Server or Desktop Virtual Machine

Typical Consolidation: 10:1



Typical Excess Hardware Capacity: 3 Years!

Without VMware



- All require same power
- All emit same heat
- All require physical space
- Setup, (re-)configuration
- Maintenance, support…

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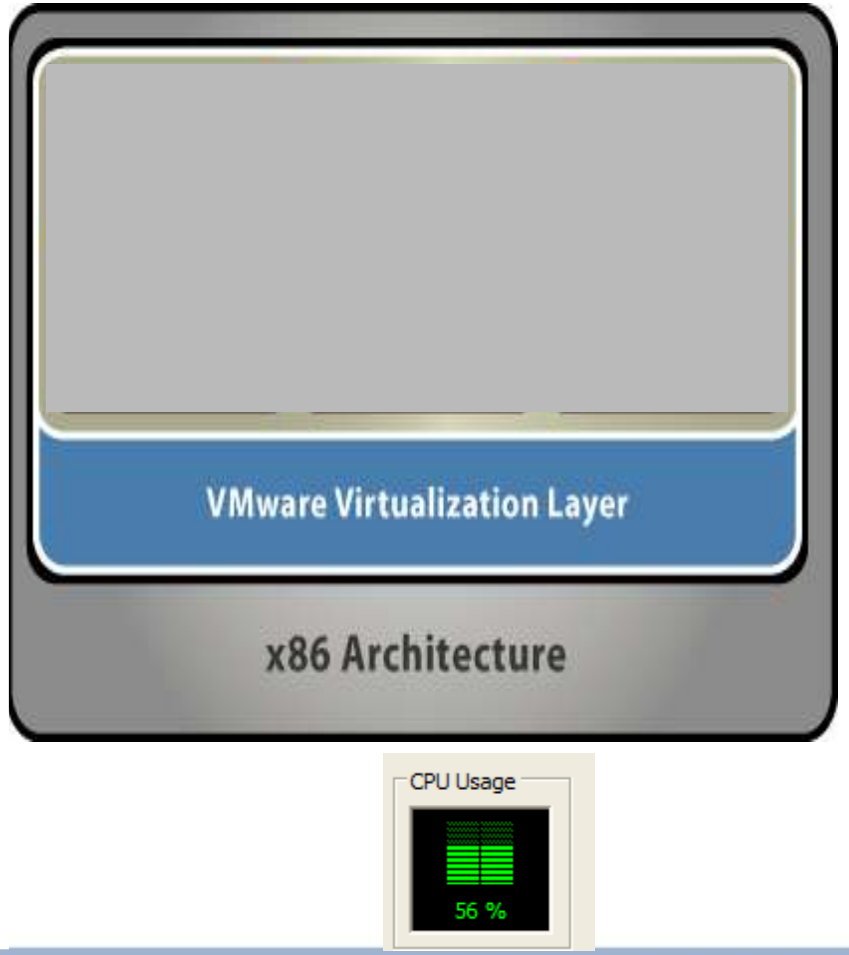
With VMware

- Flexibility
- Rapid provisioning
- High Availability
- Disaster Recovery

- Automation
- Systems Management integration
- Adaptive Datacenter



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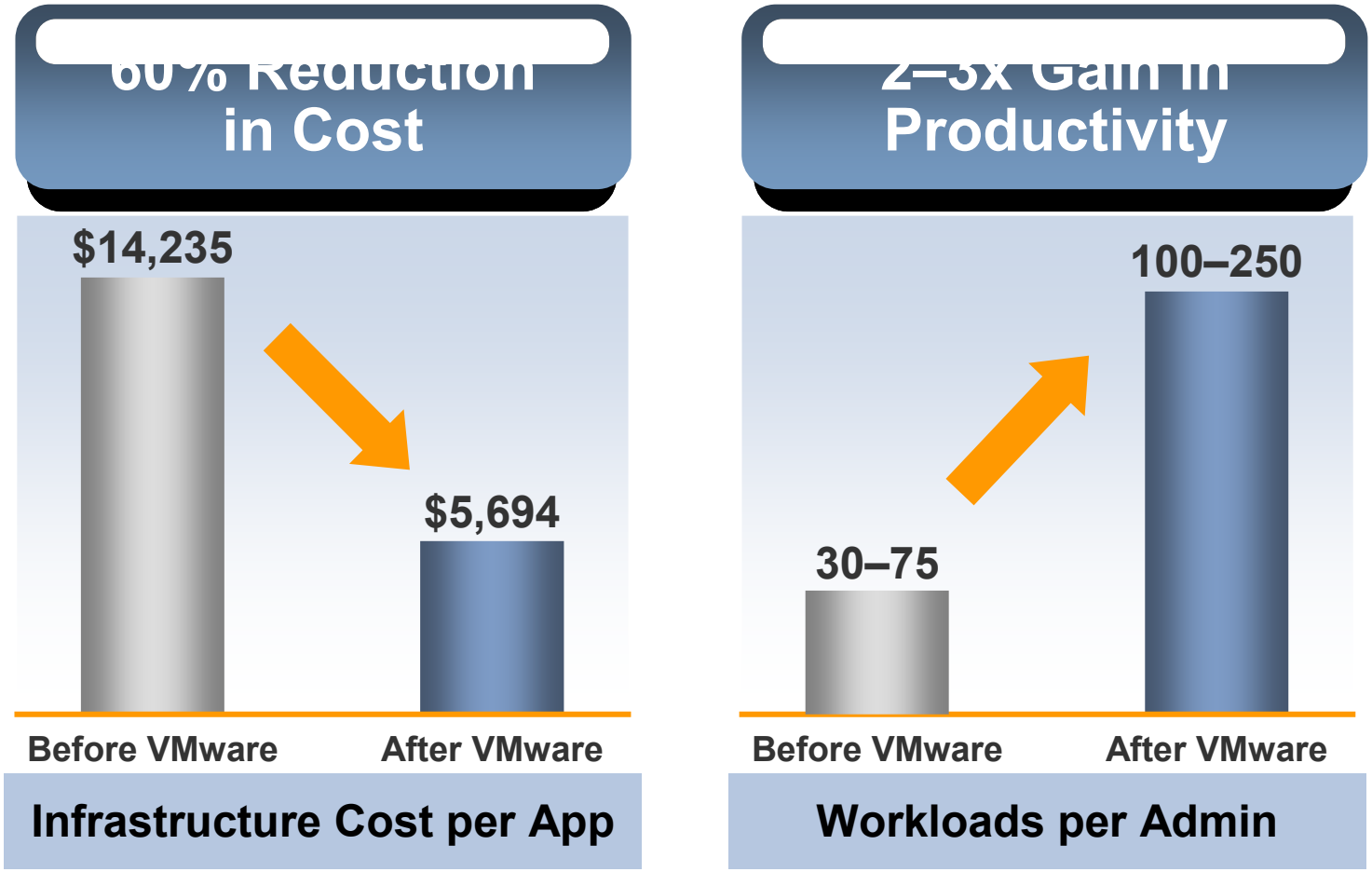
The VMware Effect: Customer Breakthroughs



*Source: IDC and VMware TAM program

What Does Server Consolidation Mean for Customers?

1. Reduce Physical Infrastructure Cost
2. Reduce Datacenter Operating Cost (e.g. Power & Cooling)
3. Increase Productivity, Operational Flexibility and Responsiveness

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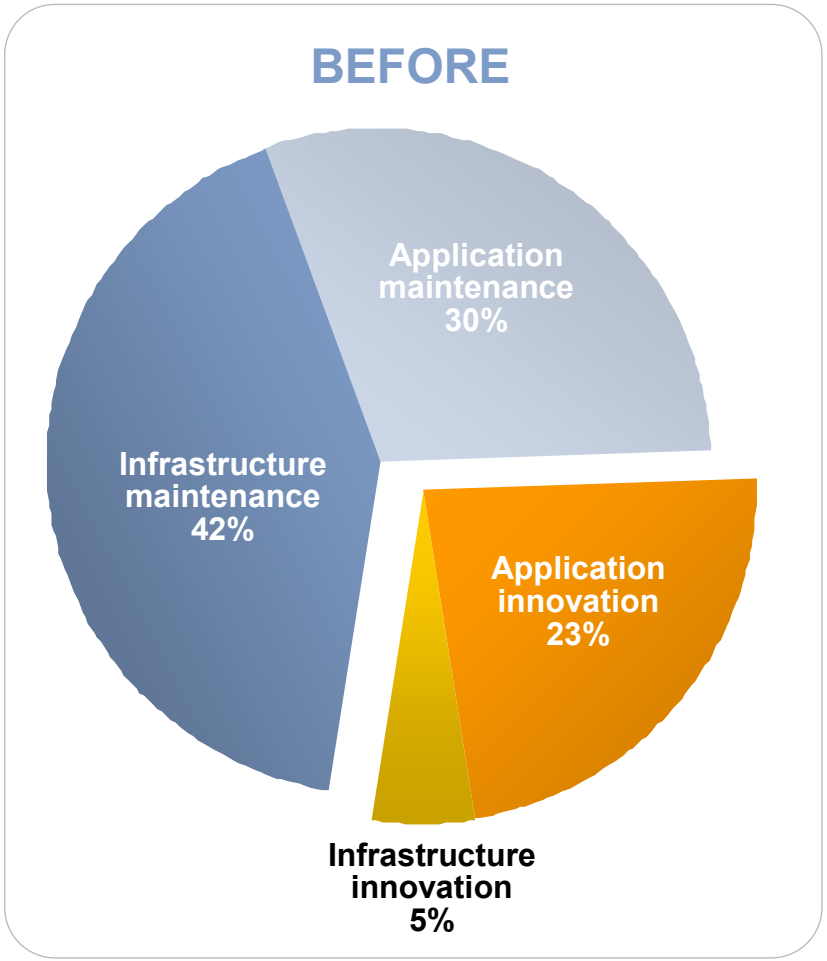
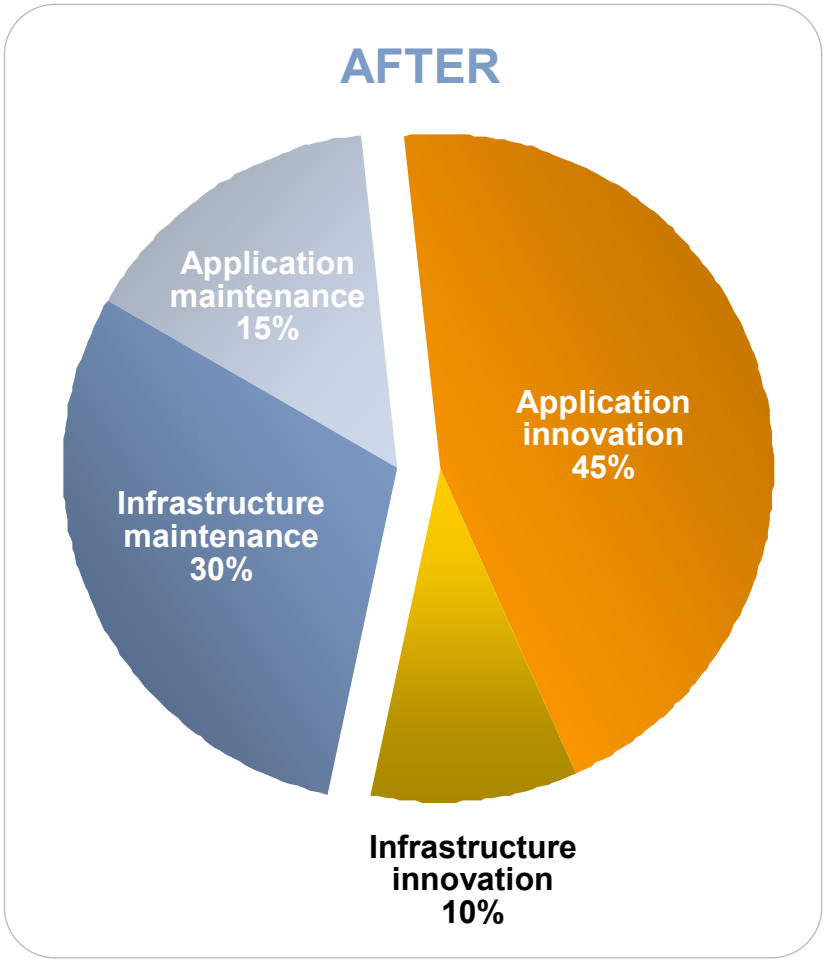
Free Up $$$ from Maintenance to Innovation





Source: VMware Fortune 100 Customer

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VMware ESX and ESXi – Serious Availability, available for Everyone

Proven by customers

- Over 120,000 customers
- Over seven years of maturation
- Over 85% of customers using for production workloads
- Years of continuous uptime on virtualized sites

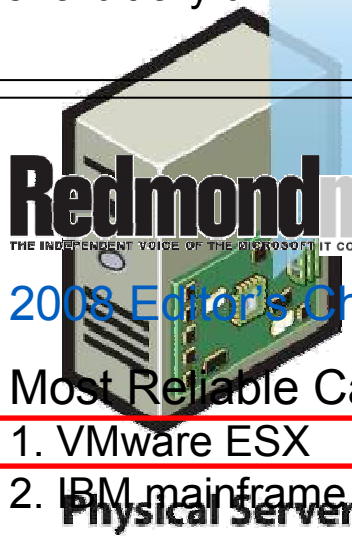
Virtualization Available for everyone

VMware ESXi

The FREE industry proven virtualization software.

Reliable by d

- ESXi: 32MB
- Less code = f
  fewer patches
- No dependenc
  or arbitrary dri



Redmond mag.com
THE INDEPENDENT VOICE OF THE MICROSOFT IT COMMUNITY

EDITORS' CHOICE Awards

2008 Editor's Choice Awards

Most Reliable Category

1. VMware ESX
2. IBM mainframe

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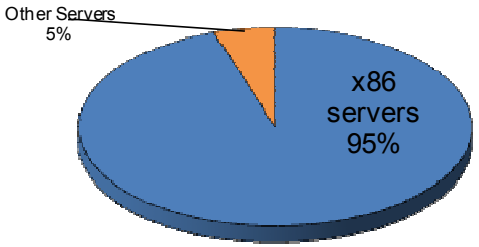
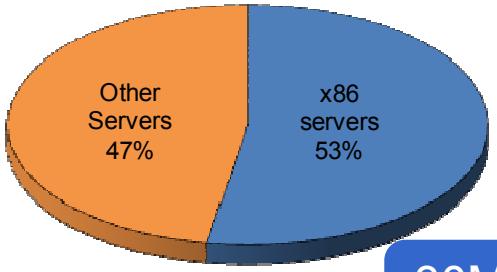
The Worldwide Server Market

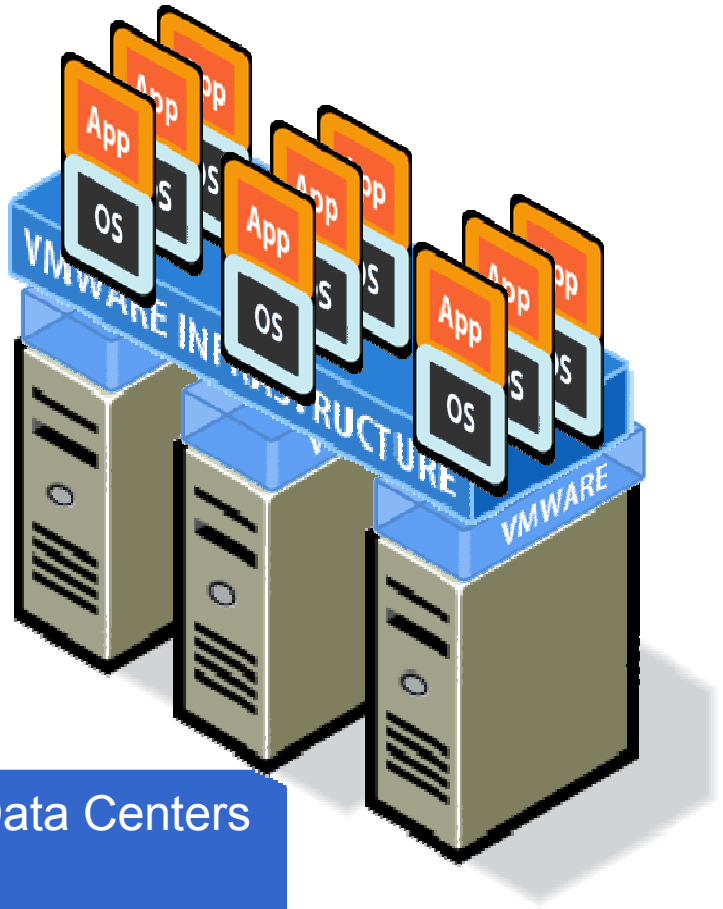
CY2007: 8M total server units shipped
(x86 server units =7.6M)



CY2007: $54.4B total factory revenue
($28.7B x86 server factory revenue)



Source: IDC Server Tracker



30M x86 Servers In Data Centers Today
Average Utilization = 5 -10%

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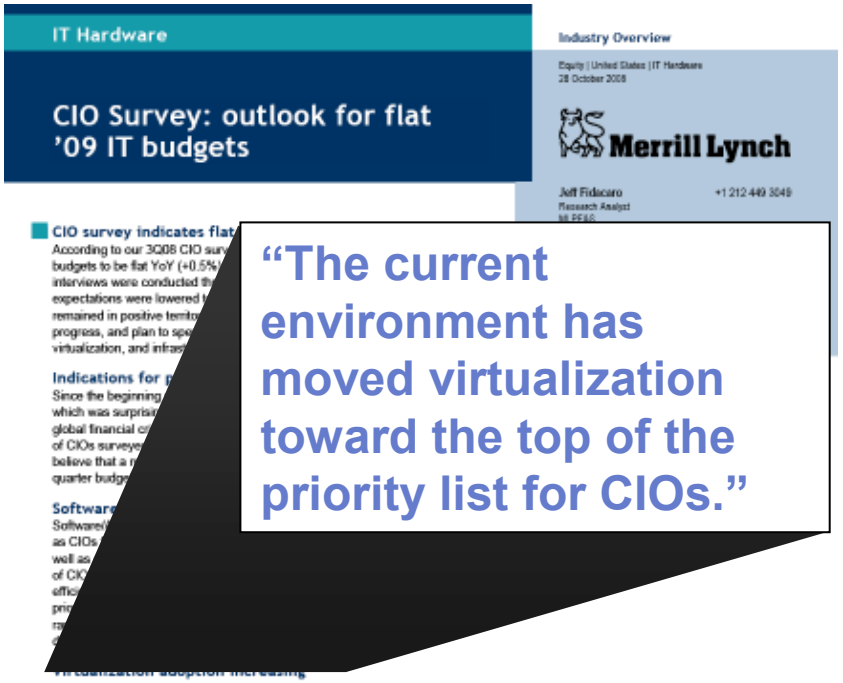
Recent CIO Surveys Agree: Virtualization is the Top CIO Priority in a Tough Economic Environment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CIO Survey: outlook for flat '09 IT budgets

Industry Overview

Equity | United States | IT Hardware
28 October 2008

Merrill Lynch

Jeff Fidacaro +1 212 449 3049
Research Analyst
MLPF&S

CIO survey indicates flat

According to our 3Q08 CIO surv
budgets to be flat YoY (+0.5%
interviews were conducted th
expectations were lowered t
remained in positive territo
progress, and plan to spe
virtualization, and infras

Indications for p

Since the beginning
which was surprisi
global financial c
of CIOs surveye
believe that a r
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Software

Software/
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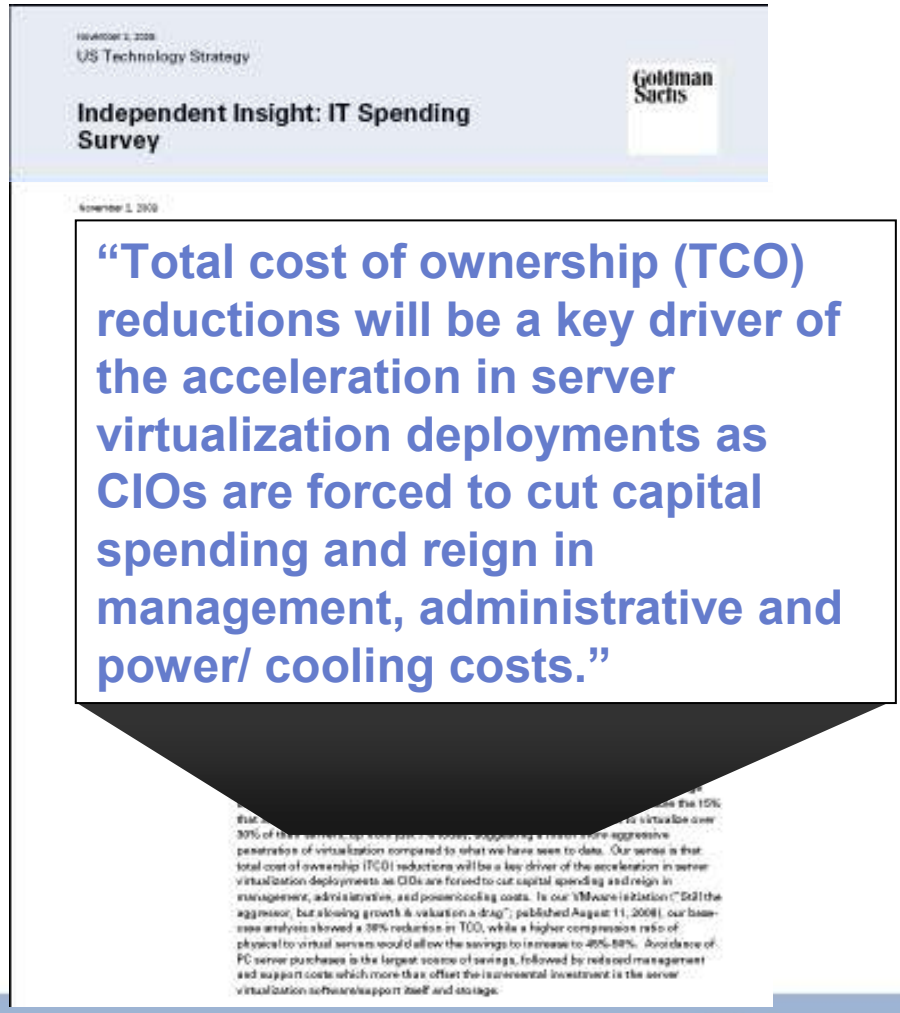
93% of the CIO respondents said they are now using virtualization technology in their x86 server environments, up from 91% surveyed in 2Q08 and 83% in 1Q08. In our opinion, the current environment has moved virtualization toward the top of the priority list for CIOs, and only 29% of x86 servers are currently virtualized. However, the number of virtualized servers is expected to nearly double in the next two years to 59%. Our survey shows that 67% of CIOs are using blade servers. We believe that HP is well positioned in the blade server market (~50% share), as evidenced by the recent share gains driven by HP's c-Class blades.

"The current environment has moved virtualization toward the top of the priority list for CIOs."


November 1, 2008

US Technology Strategy

Goldman Sachs

Independent Insight: IT Spending Survey

November 1, 2008

"Total cost of ownership (TCO) reductions will be a key driver of the acceleration in server virtualization deployments as CIOs are forced to cut capital spending and reign in management, administrative and power/ cooling costs."

Source: Merrill Lynch CIO Survey, Oct 28th, 2008
Source: Goldman Sachs IT Spending Survey, Nov 2nd, 2008

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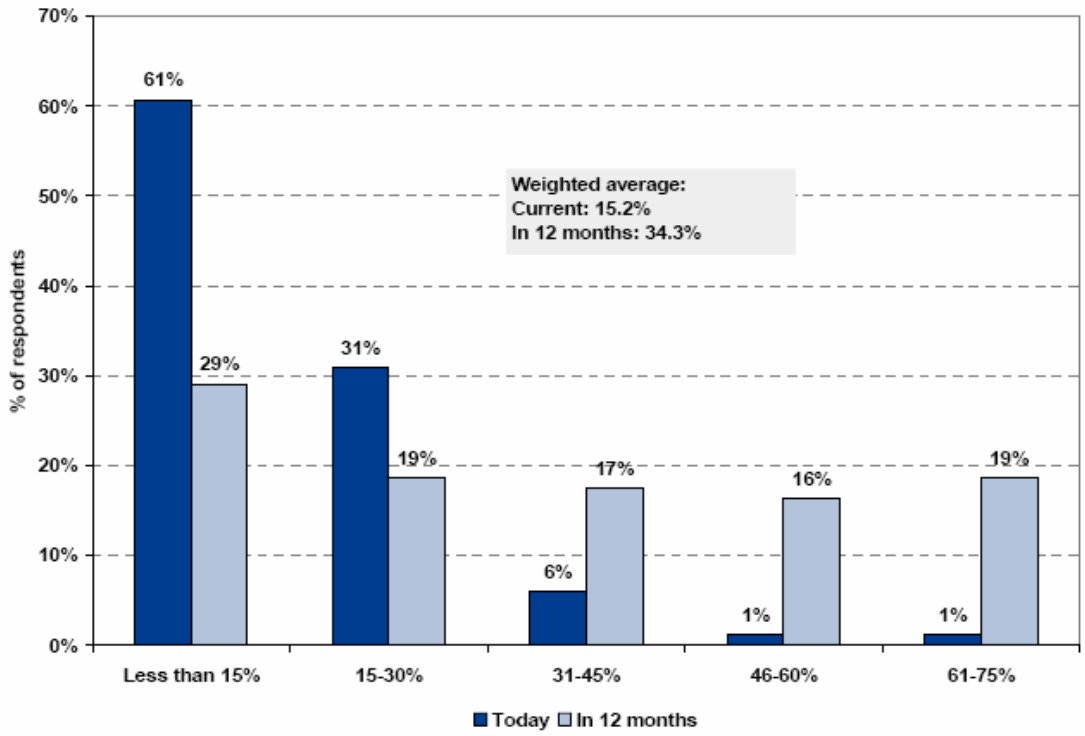
Customers Are Still Moving Ahead with Virtualization in 2009

Exhibit 21: What percentage of your PC servers use server virtualization software today? What percentage of your PC servers will use server virtualization software 12 months from now?



CIOs expect to double the percentage of servers virtualized in 2009

Source: Goldman Sachs IT Spending Survey, Nov 2nd, 2008

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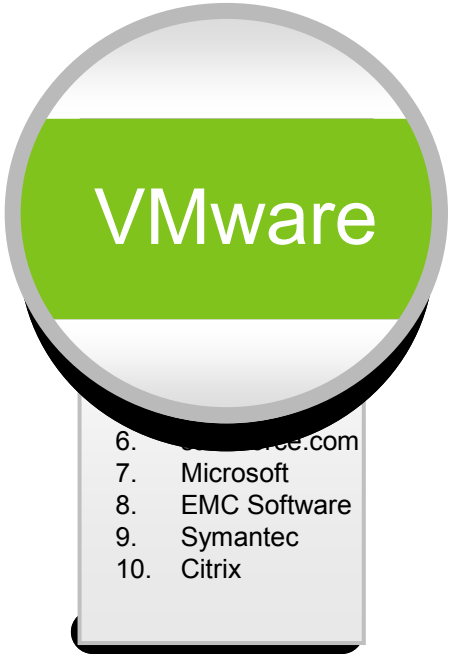
VMware Continues to be the #1 Software Investment for CIOs in a Tough Economy



#1

12 Quarters

Goldman Sachs

Which software providers are gaining share of your IT spending dollars?

Source: Goldman Sachs IT Spending Survey, Nov 2nd, 2008

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Landscape: Becoming Crowded and Complex

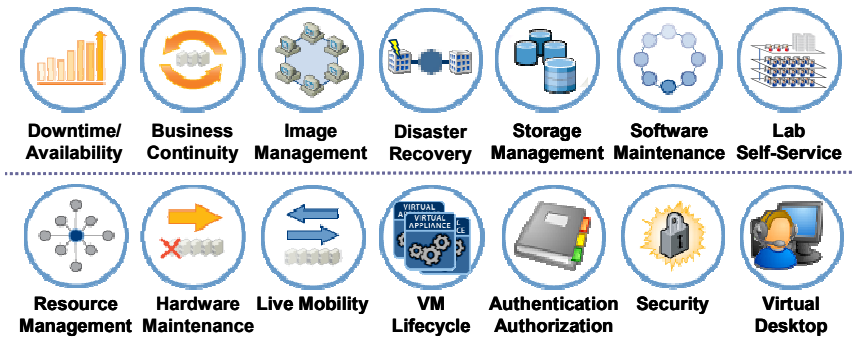
Success depends on our ability to differentiate VMware's solution

VMware enables True Dynamic IT

Required for a Dynamic Datacenter

True Dynamic IT Services

Core Business Services



Virtual Infrastructure

Hypervisor

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CITRIX

ORACLE

Microsoft

Others still working on a reliable hypervisor…

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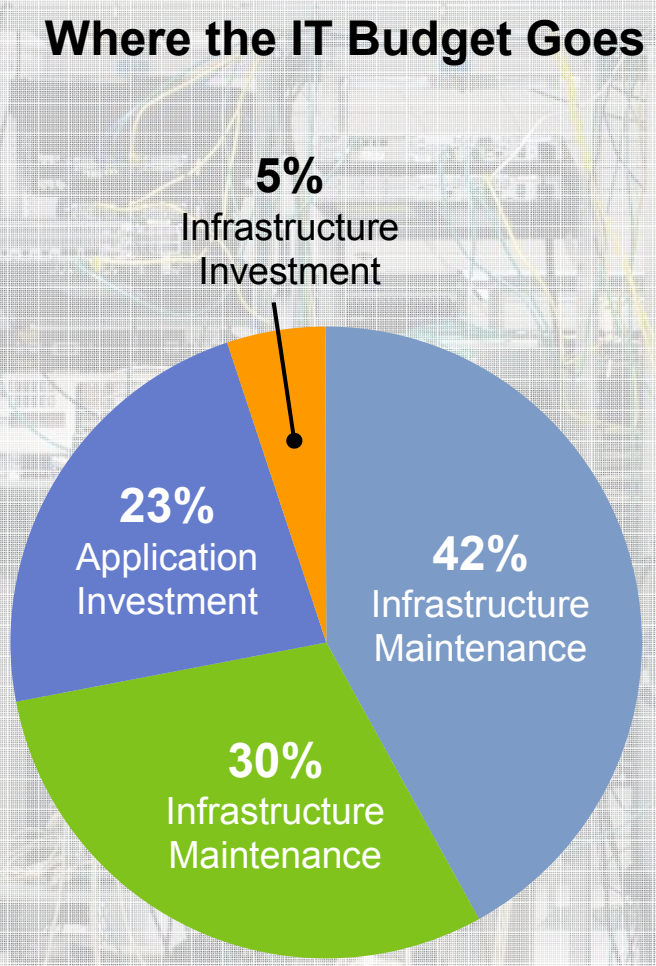
The Problem



- Overwhelming complexity
- >70% of IT budgets just to keep the lights on
- <30% of IT budgets goes to innovation and competitive advantage

Business Can Change Only as Fast as IT Can

Source: VMware Fortune 100 Customers

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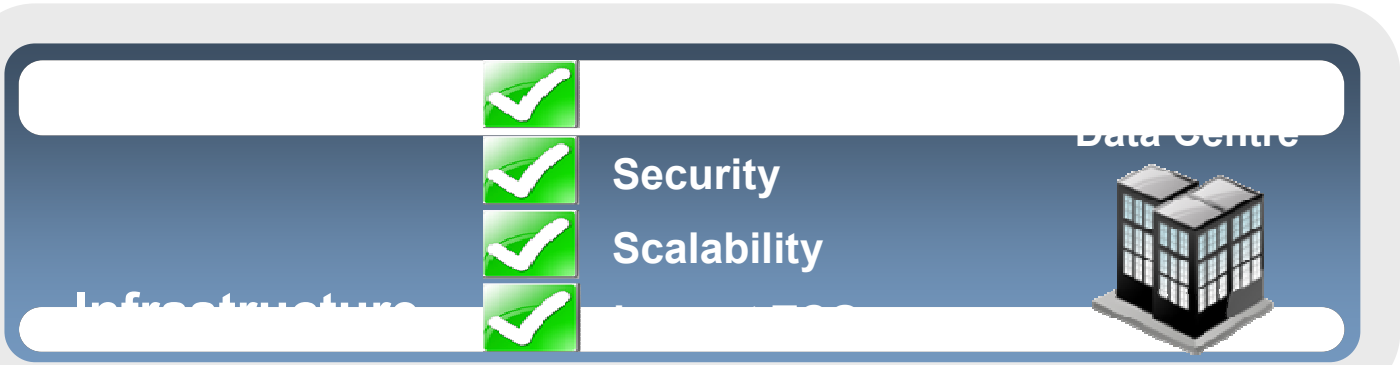
What We Believe Customers Want …

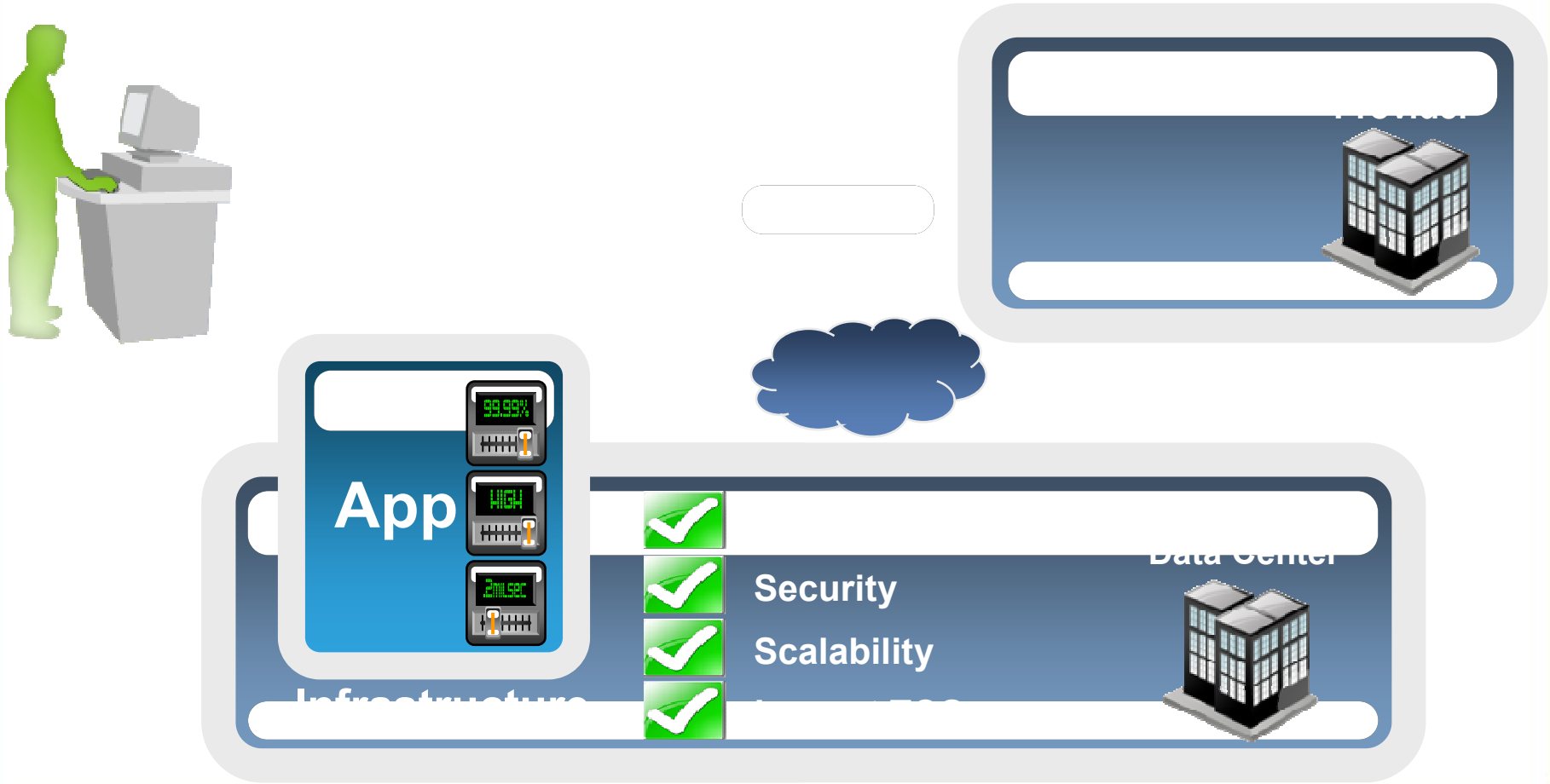
Availability

Security

Scalability



What Customers Have Been Waiting For



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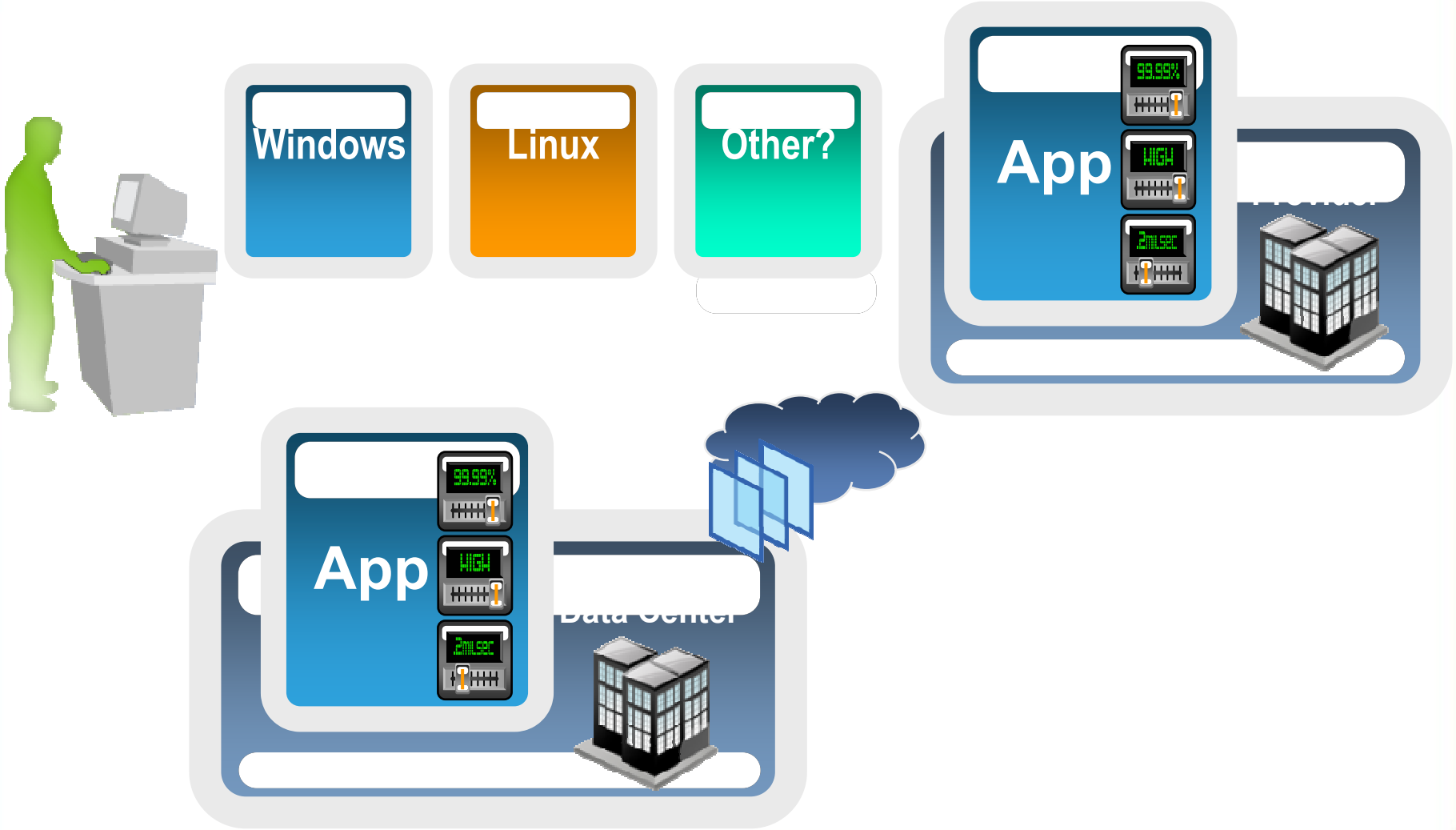

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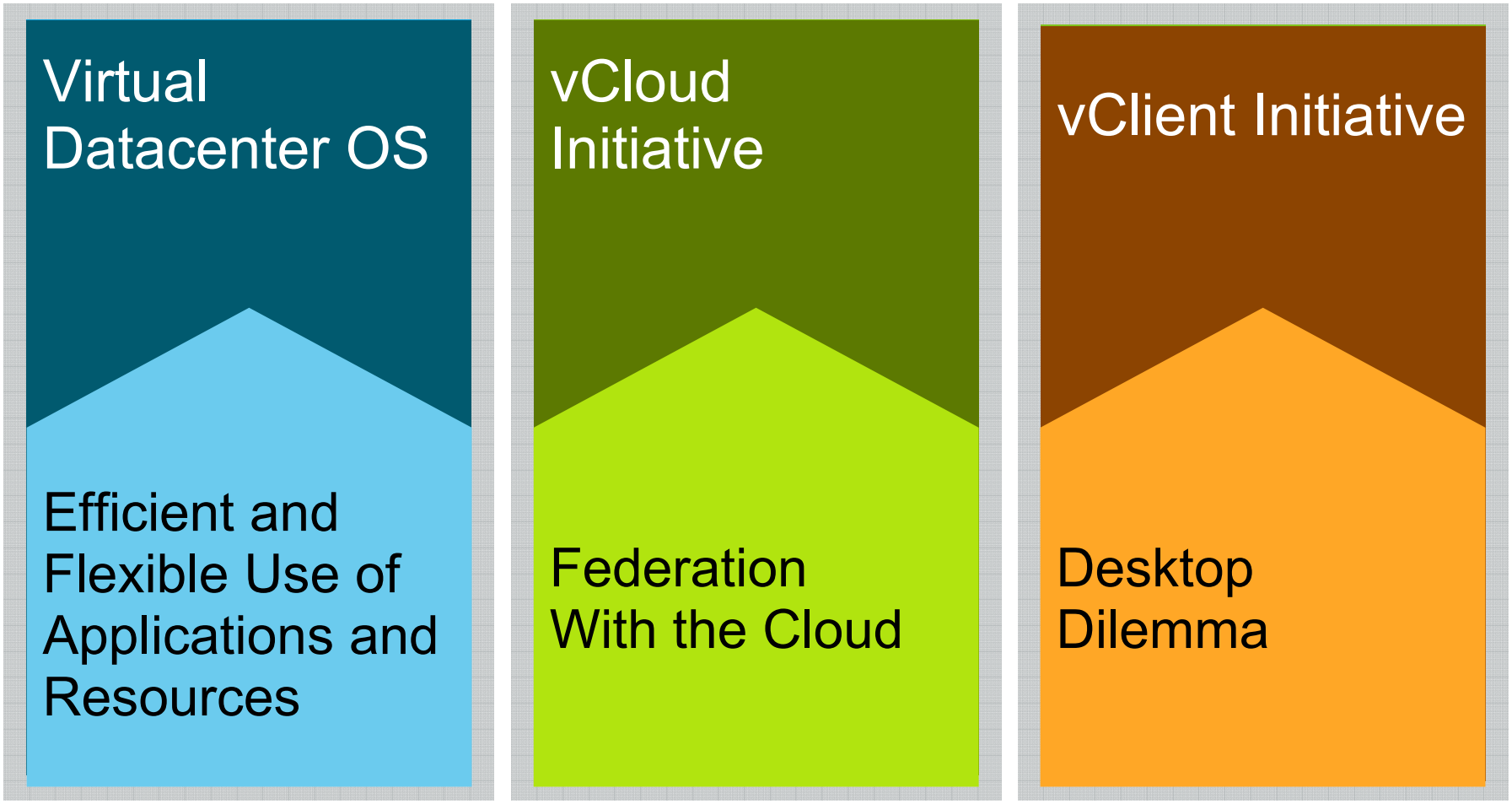
VMware's Focus



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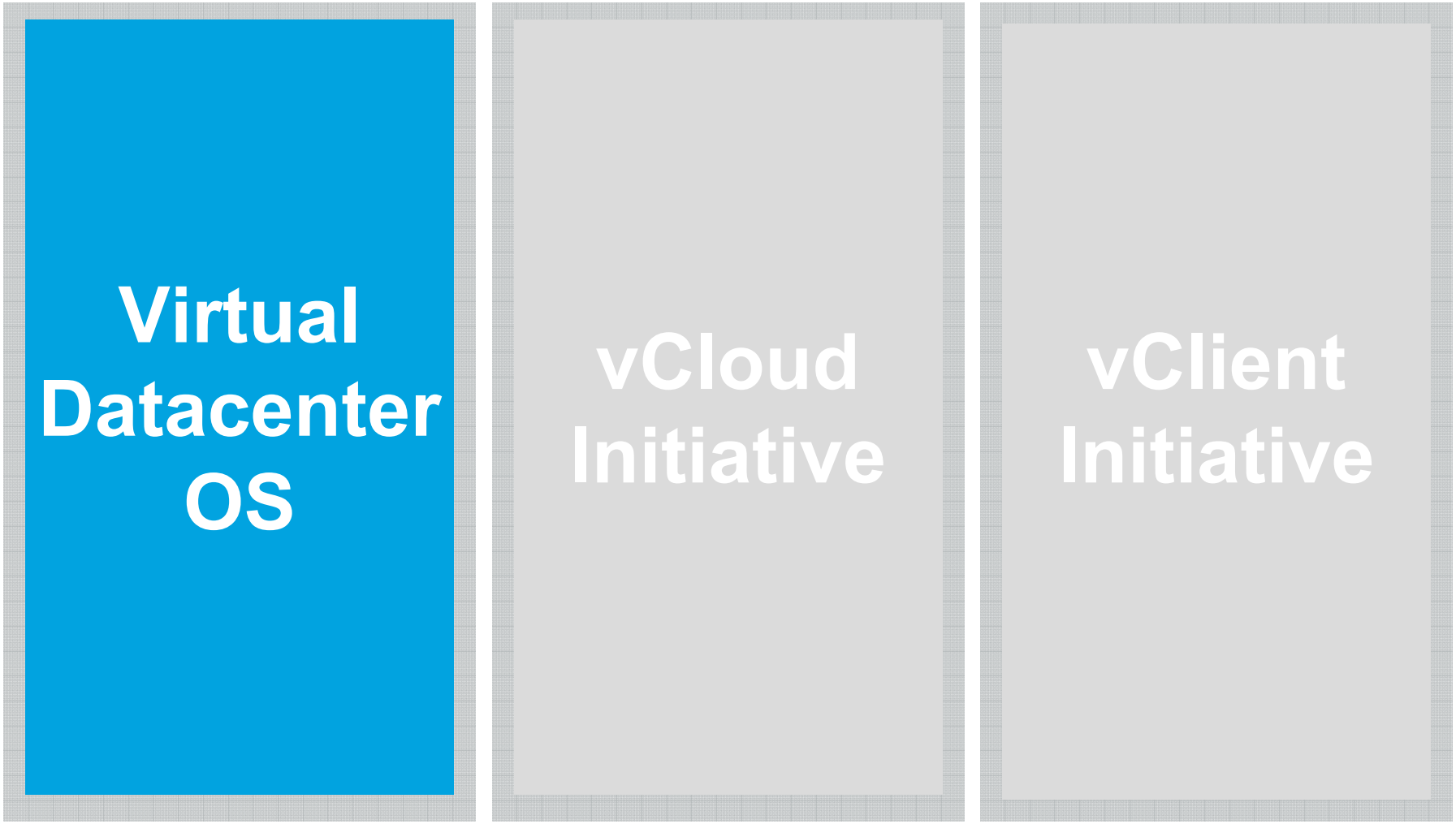
Virtual Datacenter OS



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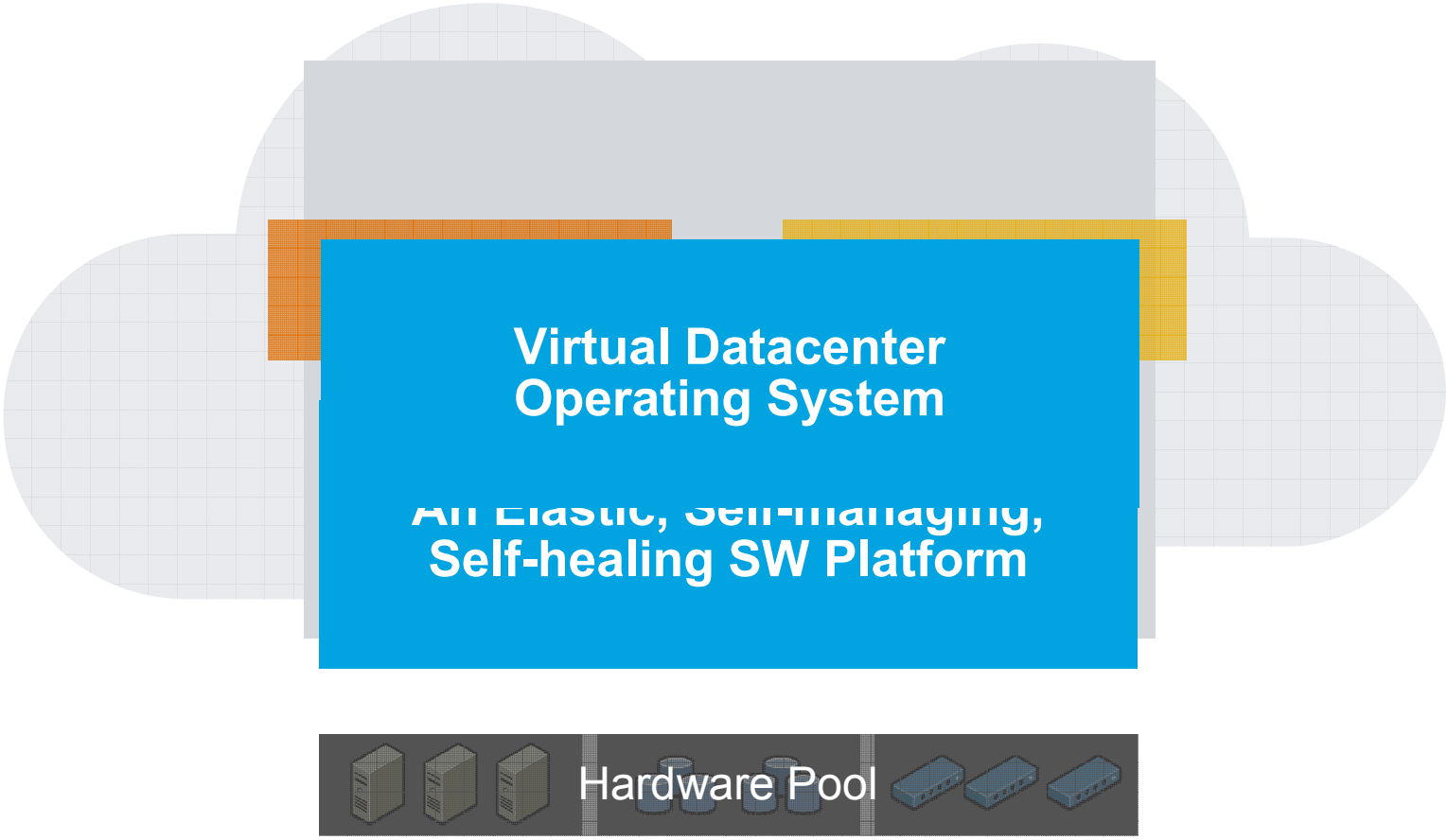
New Software Platform Required



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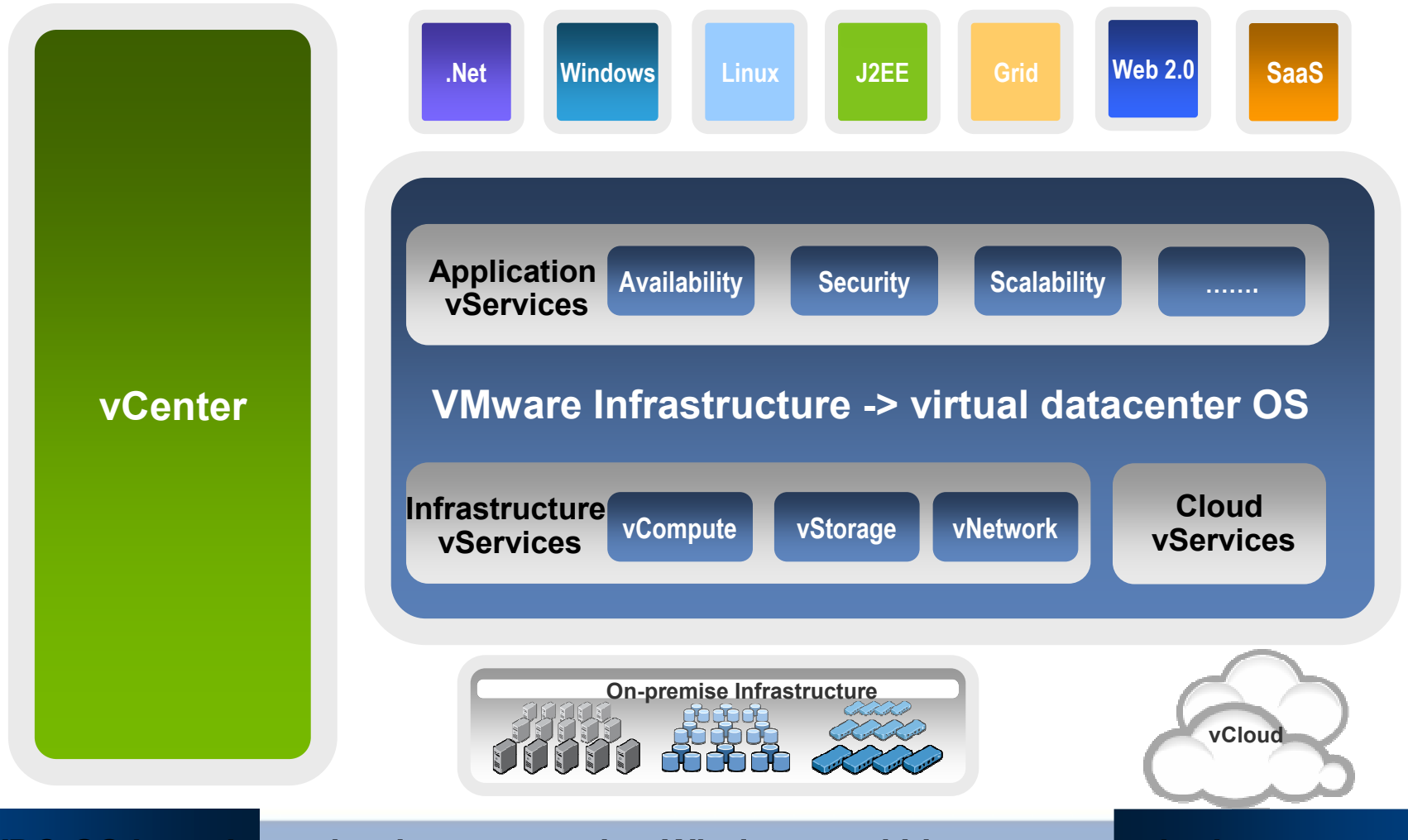
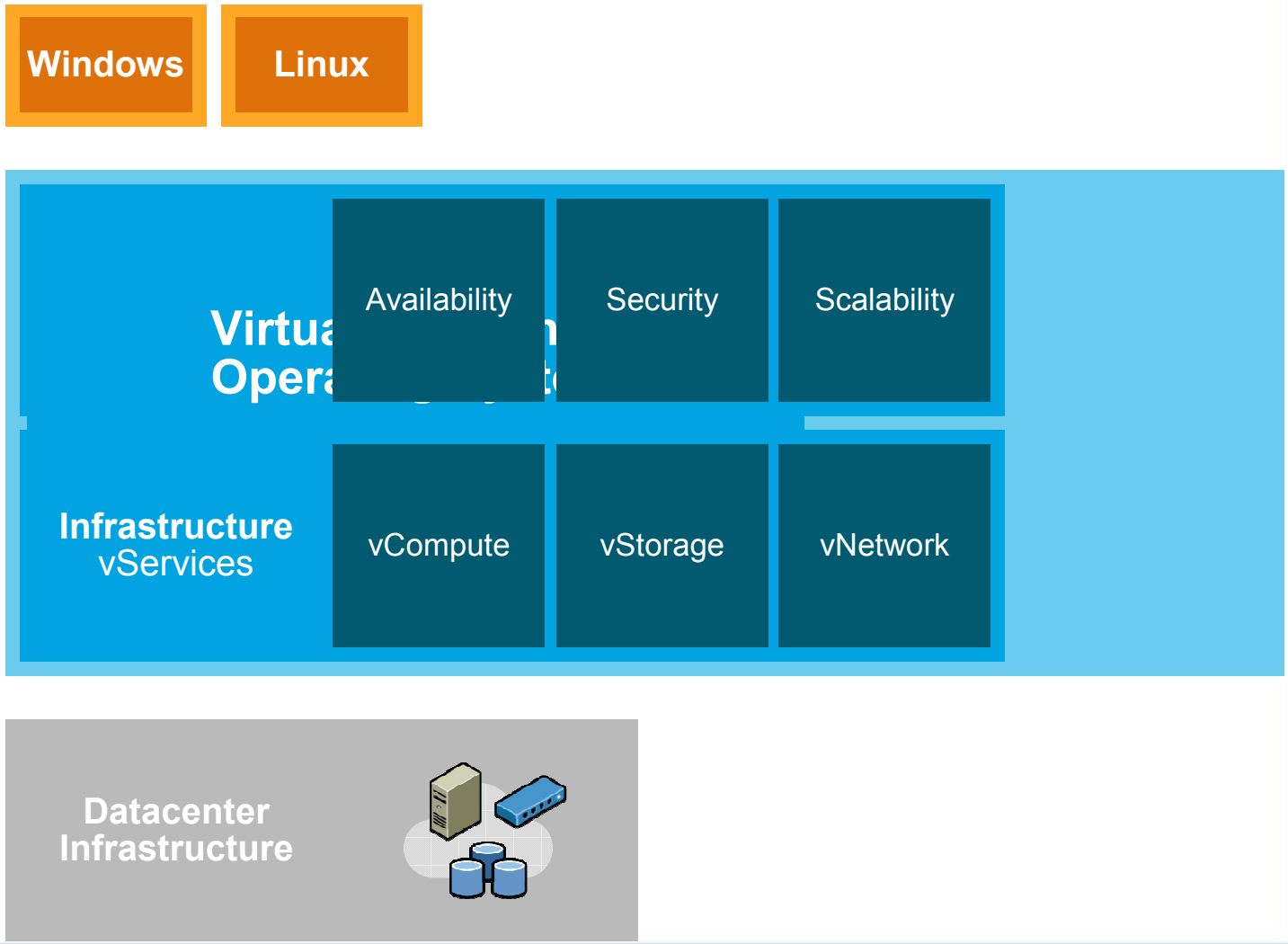
The virtual datacenter OS from VMware

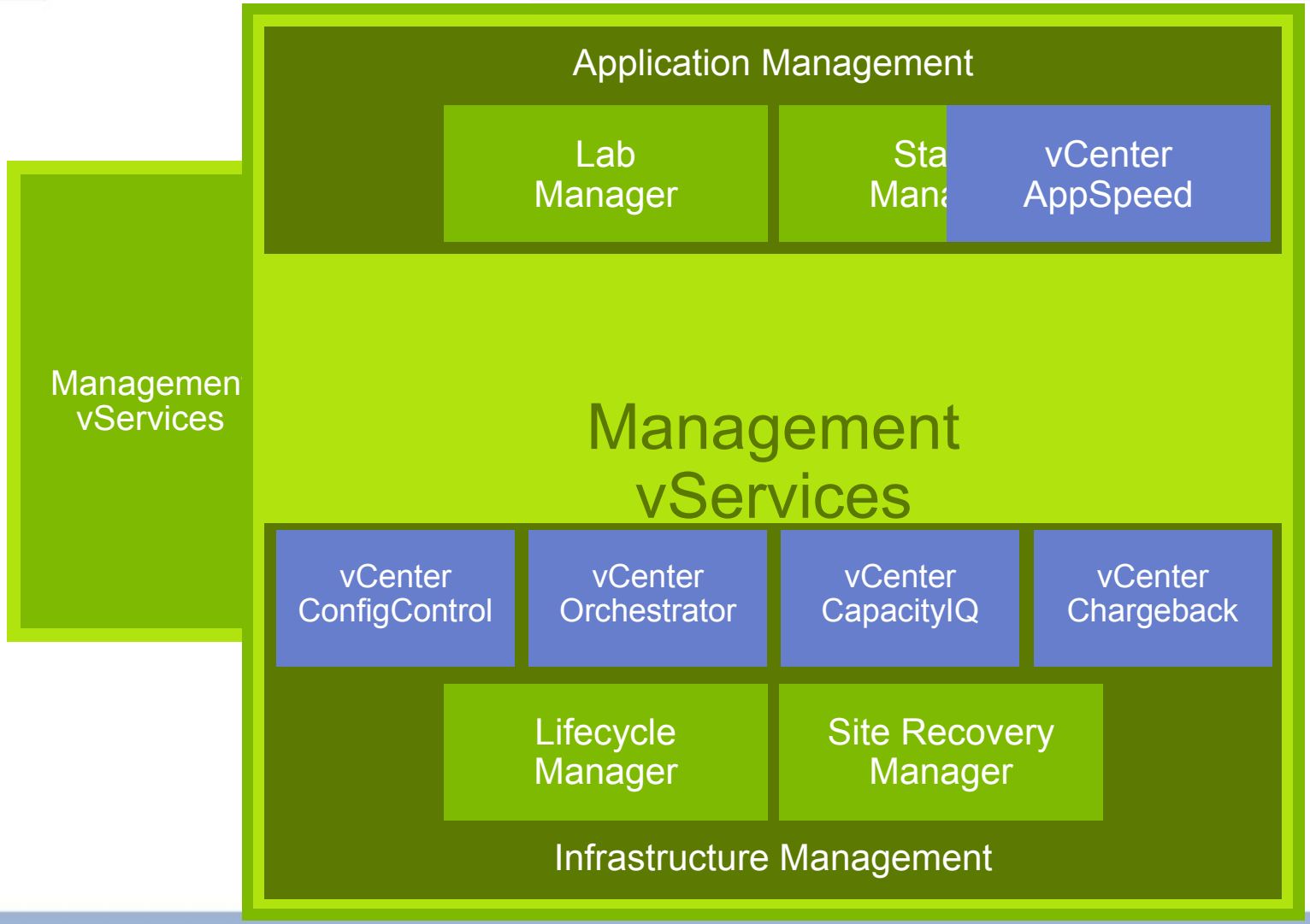


VDC-OS is to the entire datacenter what Windows and Linux are to a single server

Evolving to Virtual Datacenter OS: vServices



VMware vCenter



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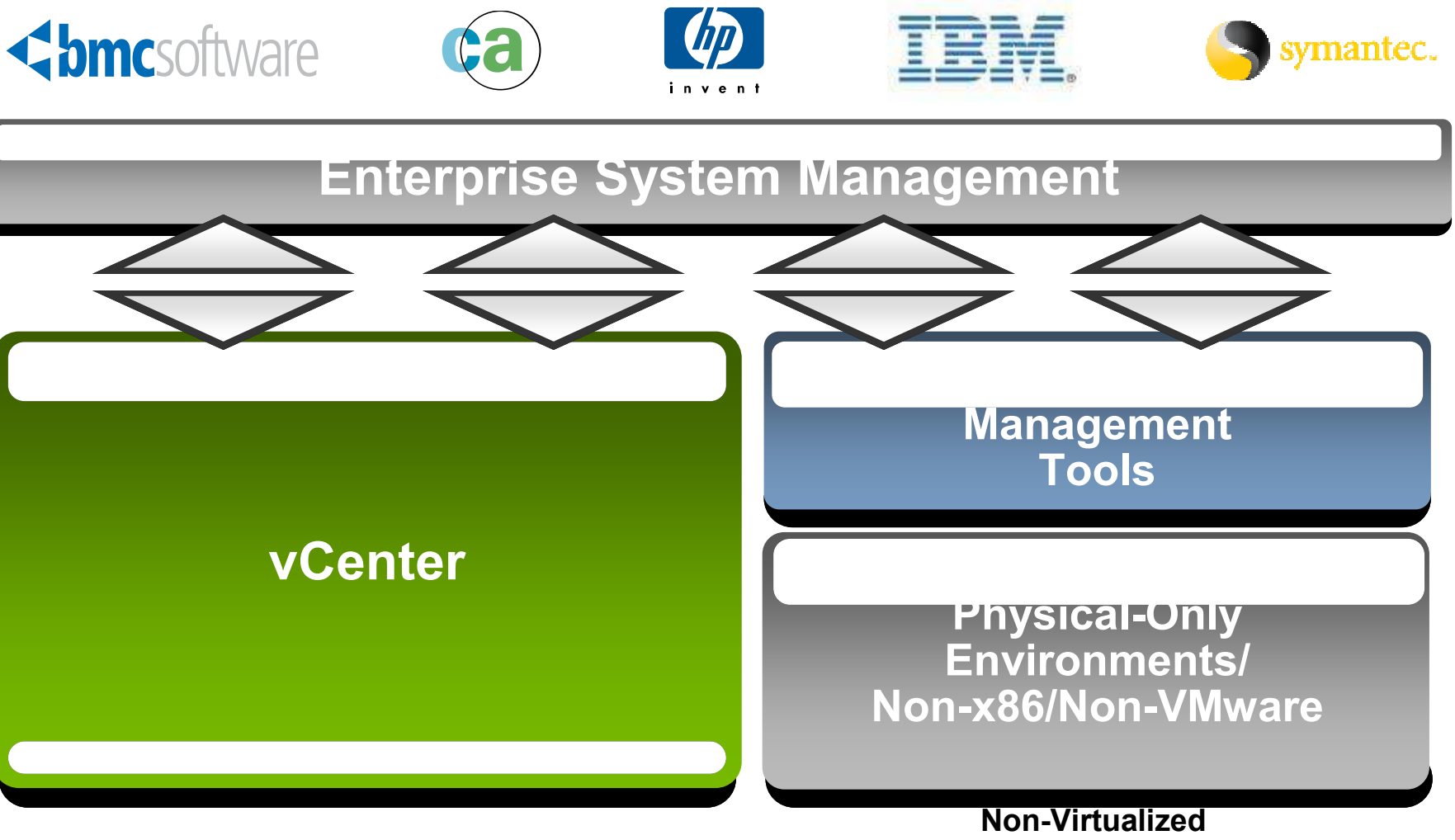
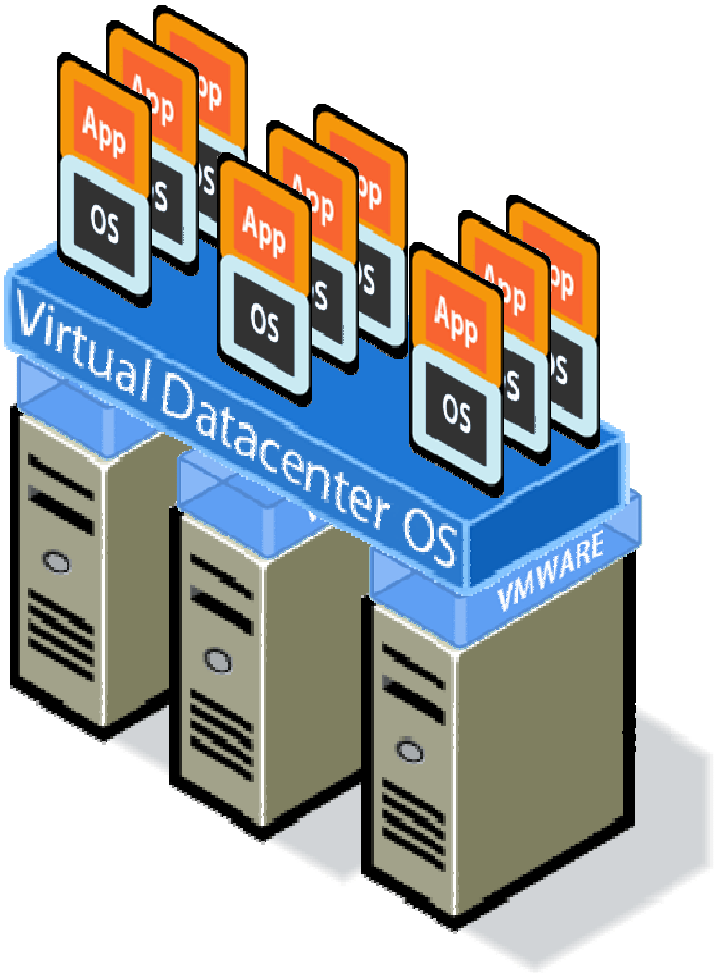
End-to-End Integrated Management



The Virtual Datacenter Operating System

Virtual Datacenter Operating System

Making VMware the Virtual Datacenter operating system. For you to run all you application on, in a better, more robust, secure and scalable way then compared to physical computing.



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vCloud

Virtual Datacenter OS

vCloud Initiative

vClient Initiative

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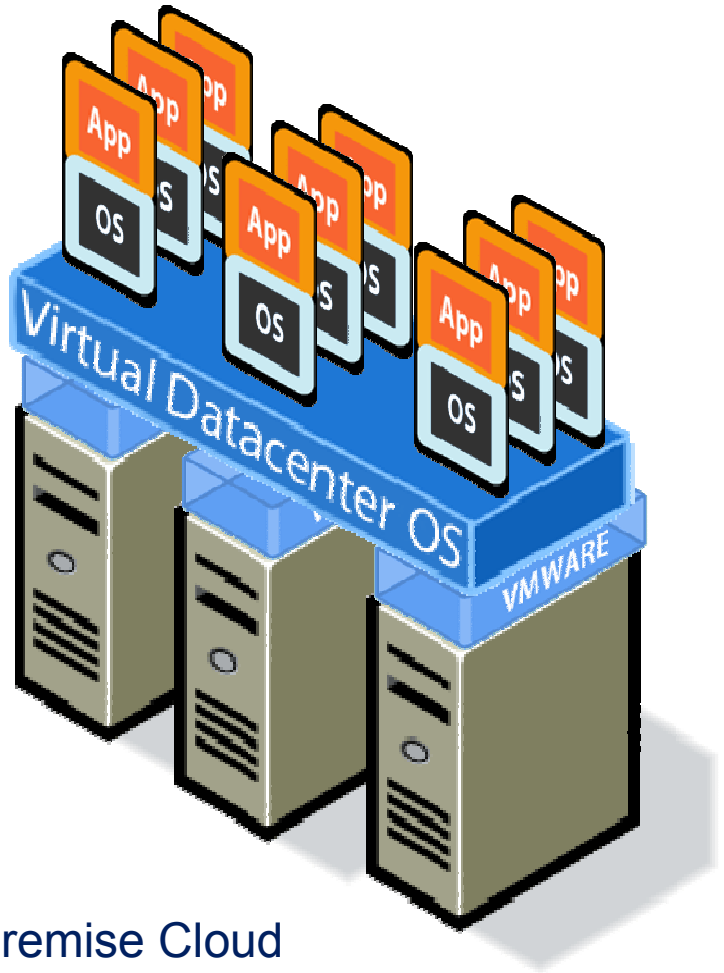
Easy Cloud Migration

The vCloud allows Elastic Capacity by enabling Local Cloud to Off-premise Cloud migration

Off-Premise Cloud



On-Premise Cloud

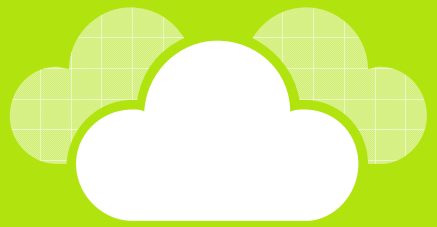
vCloud Initiative

Broad Compatibility Built on vApps

Application and Infrastructure VMs

Federation
Cloud vServices

100+ Service Provider Partners



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verizon

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vClient

Virtual Datacenter OS

vCloud Initiative

vClient Initiative

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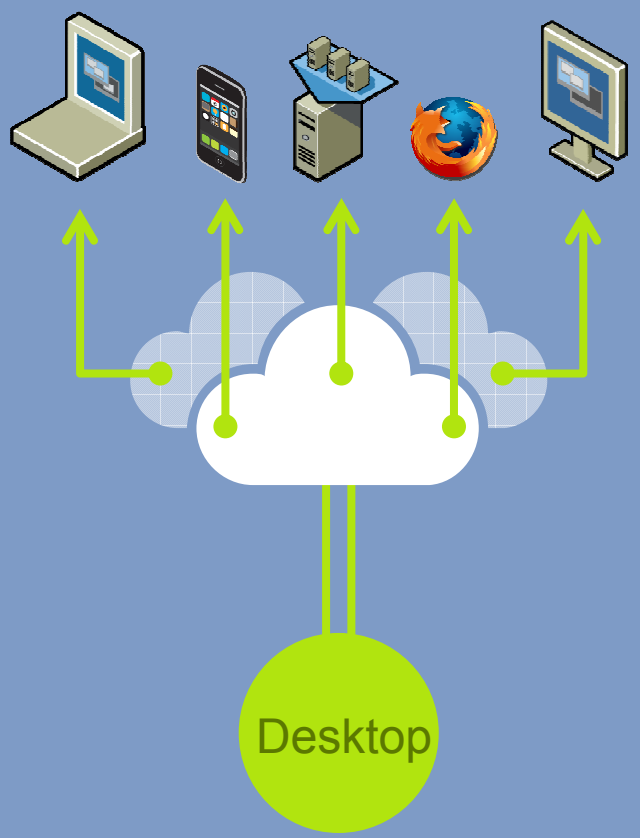
The Desktop Dilemma



The future of client computing

- IT managers faced with complexity: desktops vs. notebooks, Windows vs. Mac, Win32 apps vs. web apps
- Users want their desktop to follow them, not the device
- IT needs to provide centralized management for all desktops
- VDI is the first step towards the universal client

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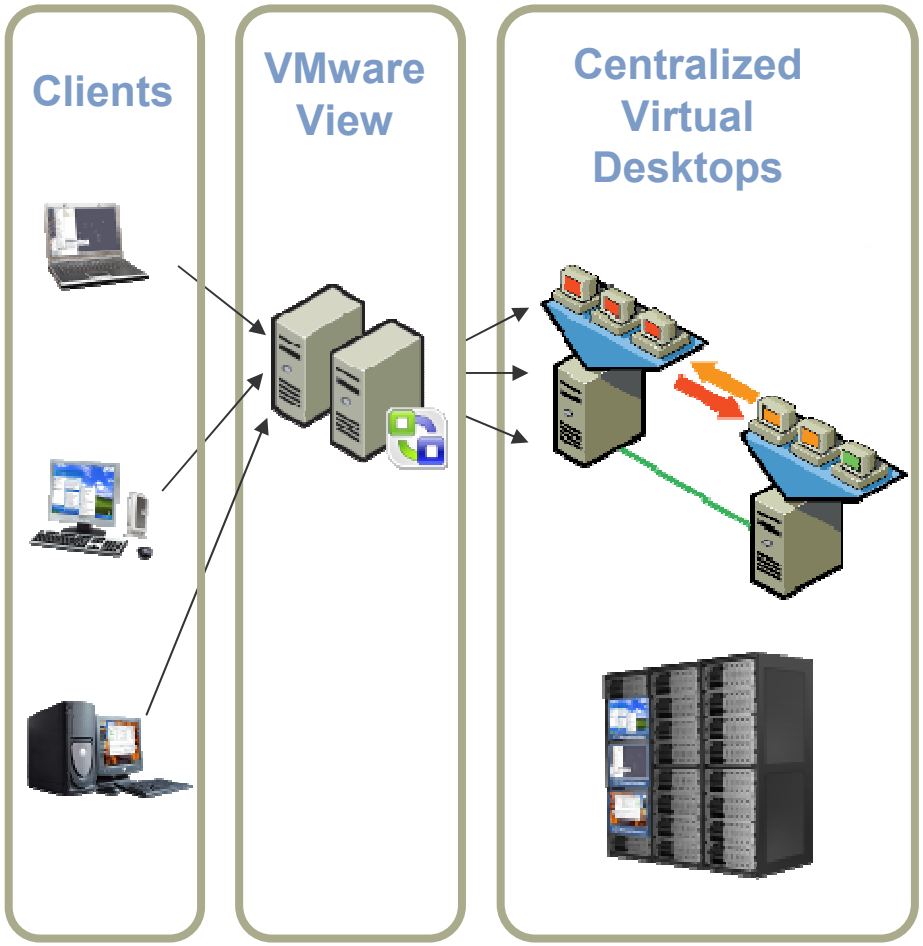
Breakthrough results extend to the desktop



How it works:

- Desktop VMs are hosted on servers
- Users access their virtual PC via a thin client or PC

Results:

- Company data is secure in the data center
- Desktop provisioning takes minutes
- Desktop management is simplified
- Costs go down.

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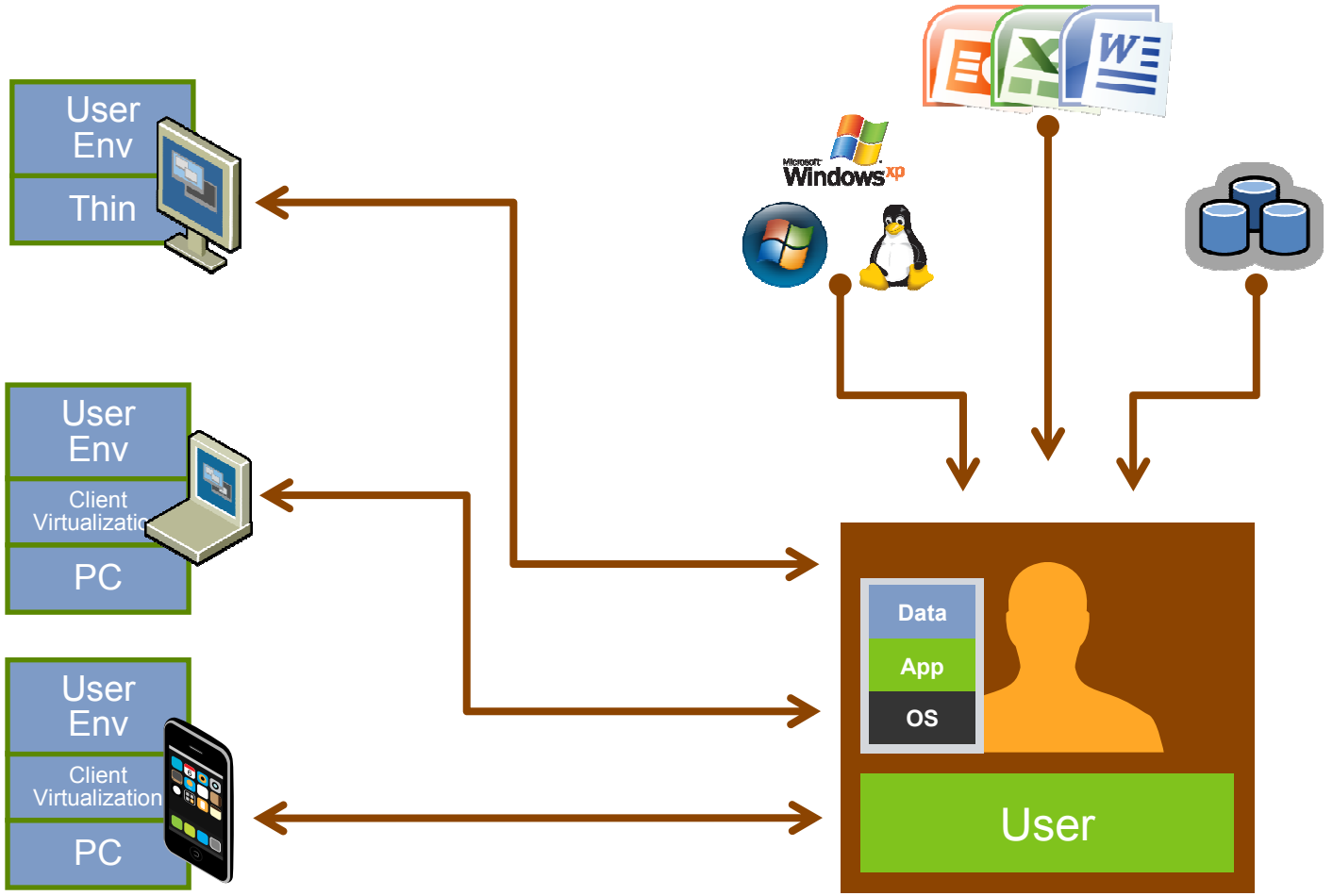
Desktop That Follow the User



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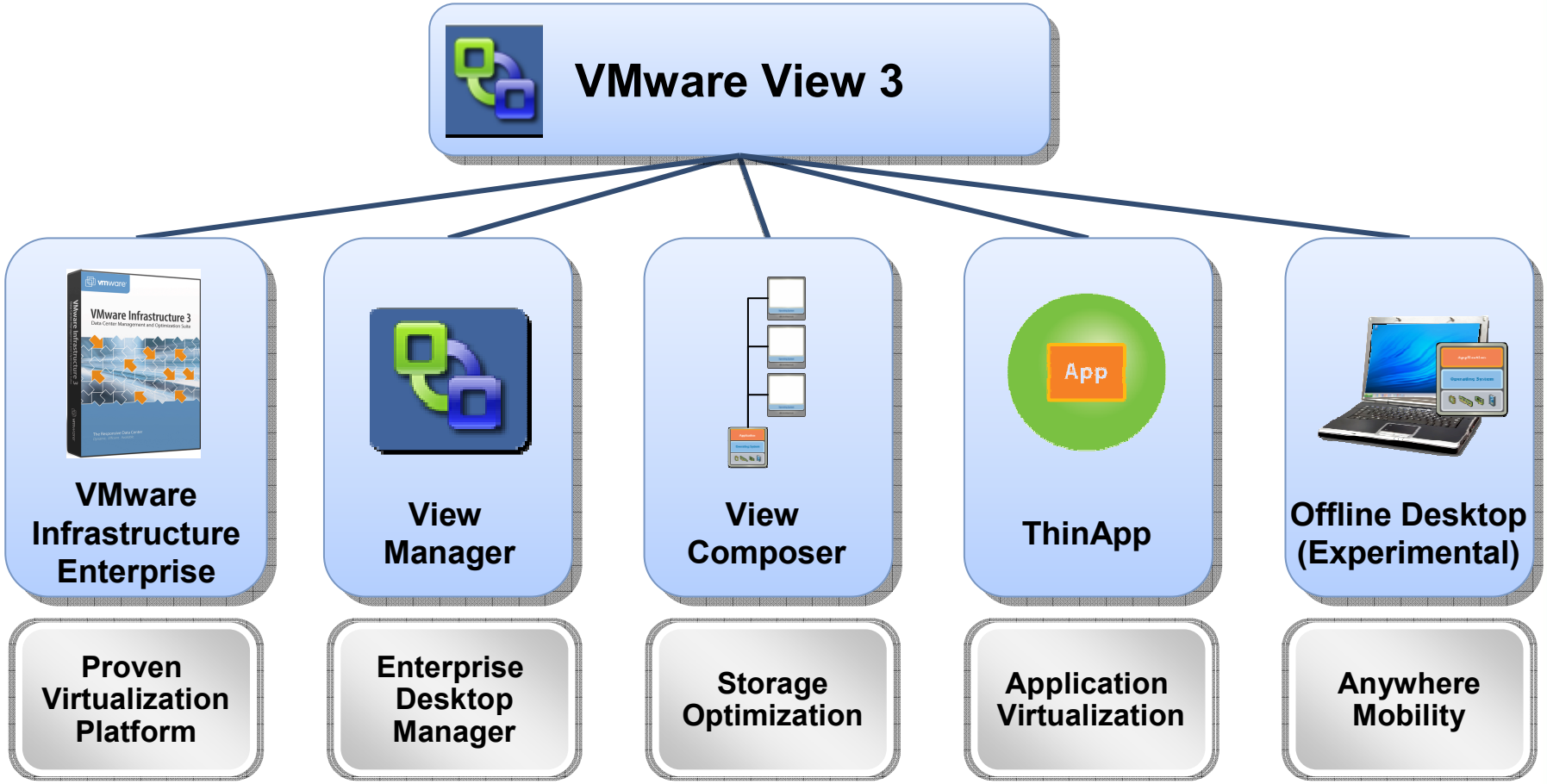
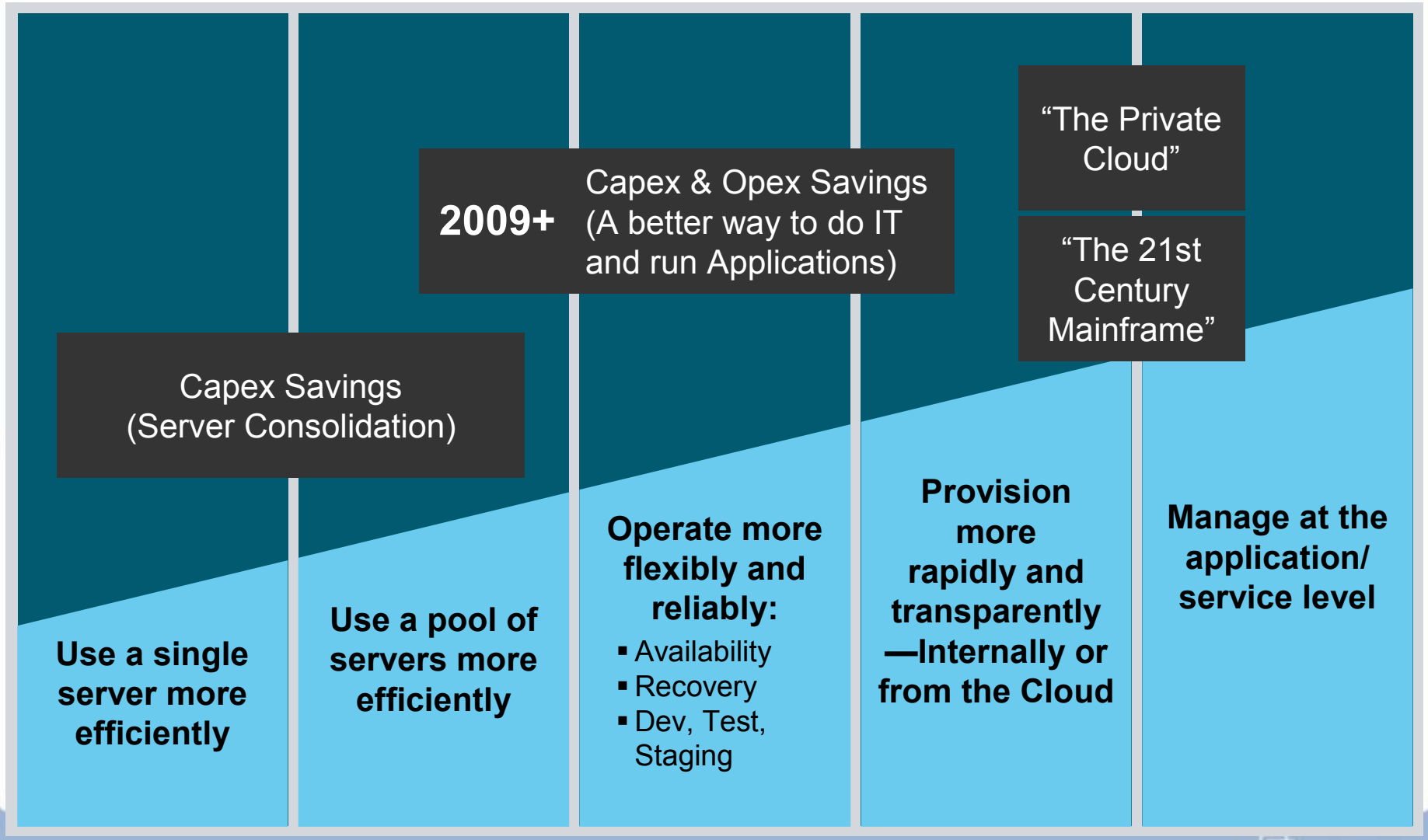
Components of VMware View



The VMware Journey



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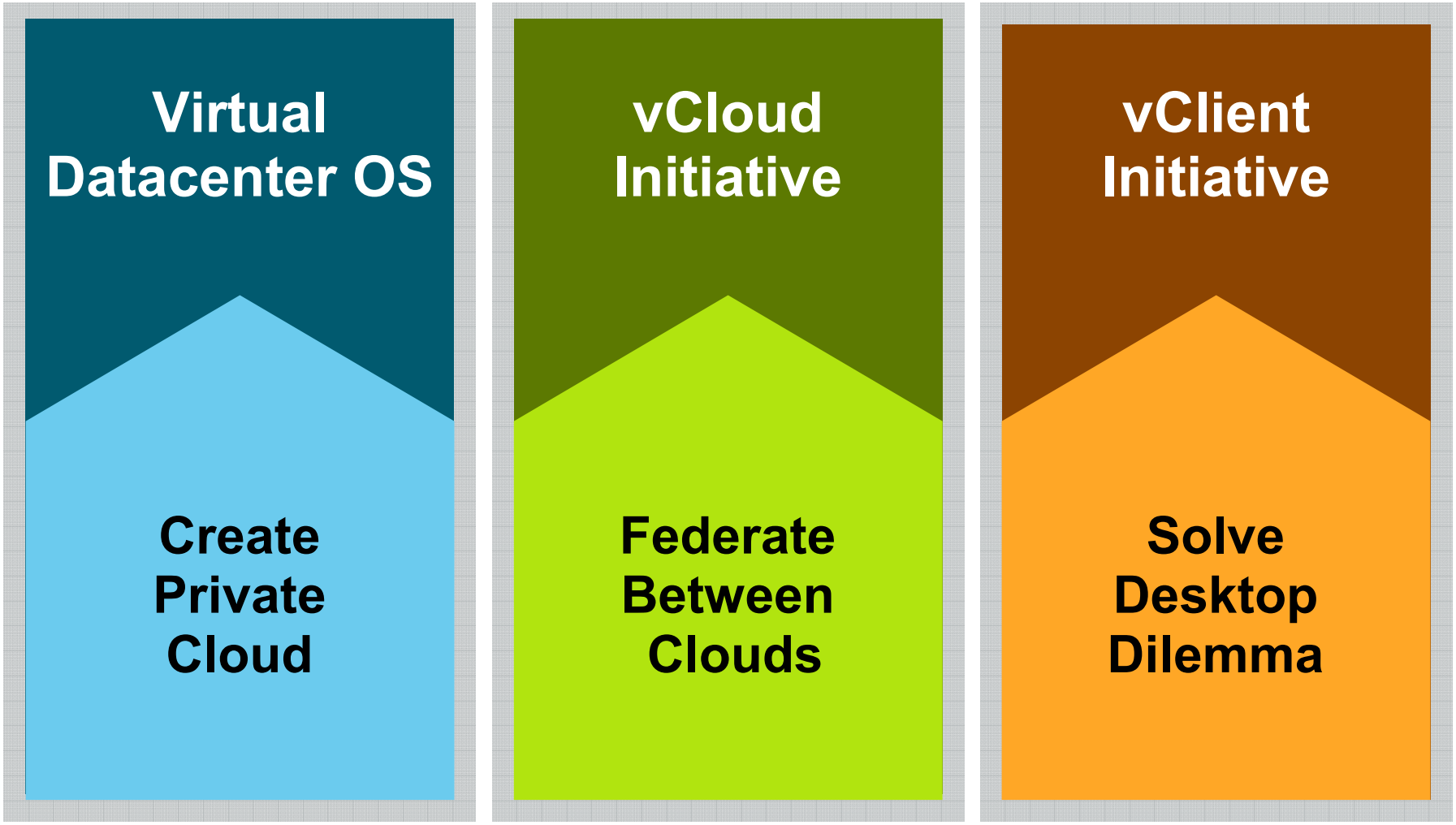
VMware's Initiatives



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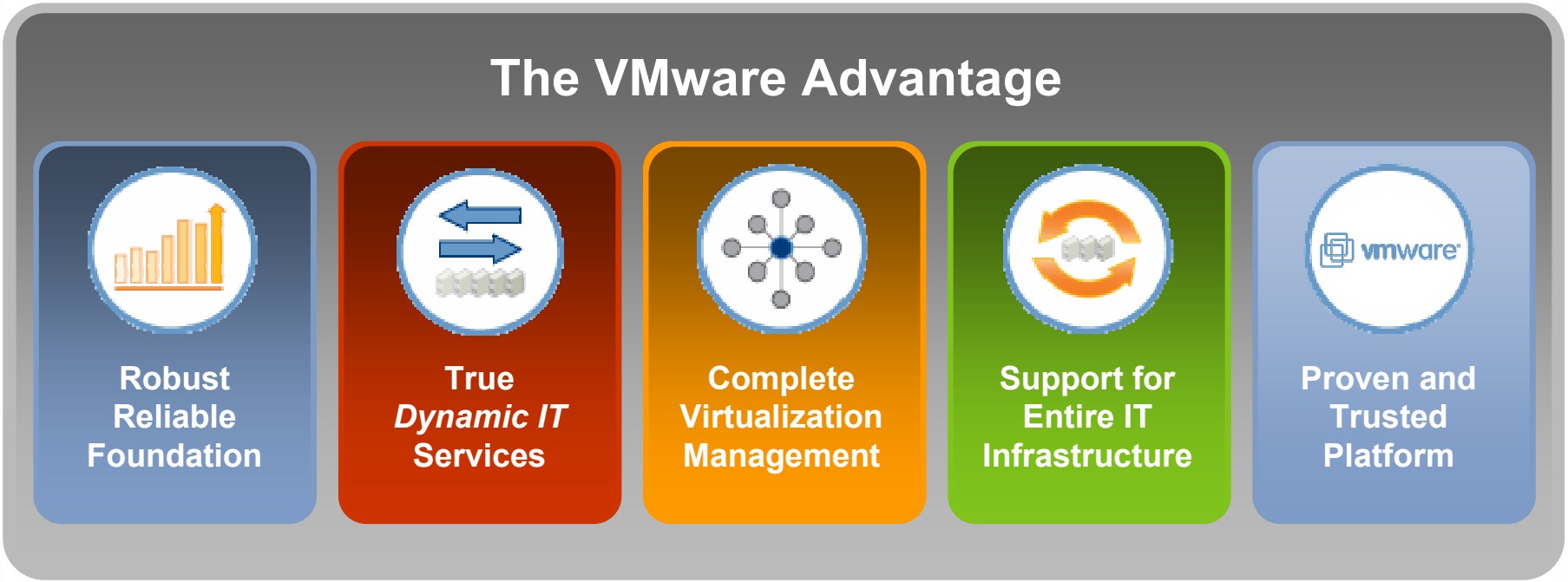
VMware – The Best Platform for Your Applications



Reliable, Comprehensive, Cost-effective Solutions

http://www.vmware.com/technology/whyvmware

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Questions?

Thank You

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