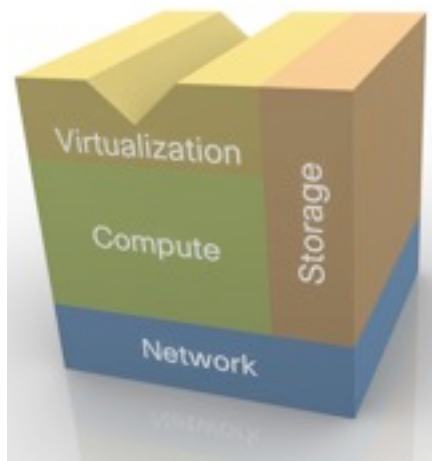


Efficiency. Control. Choice.

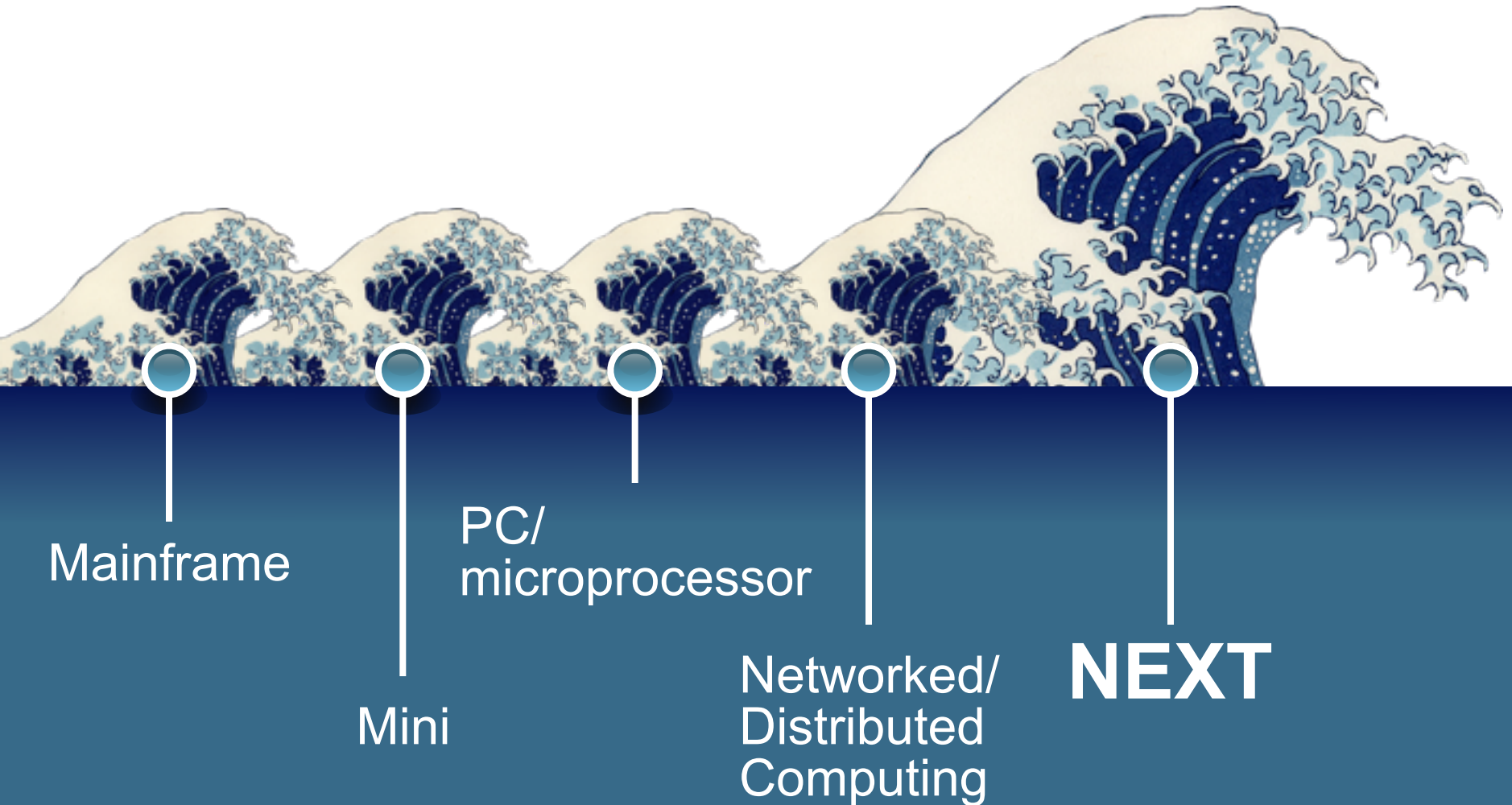
Imagine...
The future brought to present

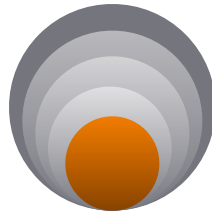
Virtual Computing Environment



Horia Constantinescu
EMC Corporation
Cisco Expo 2010, Bucharest

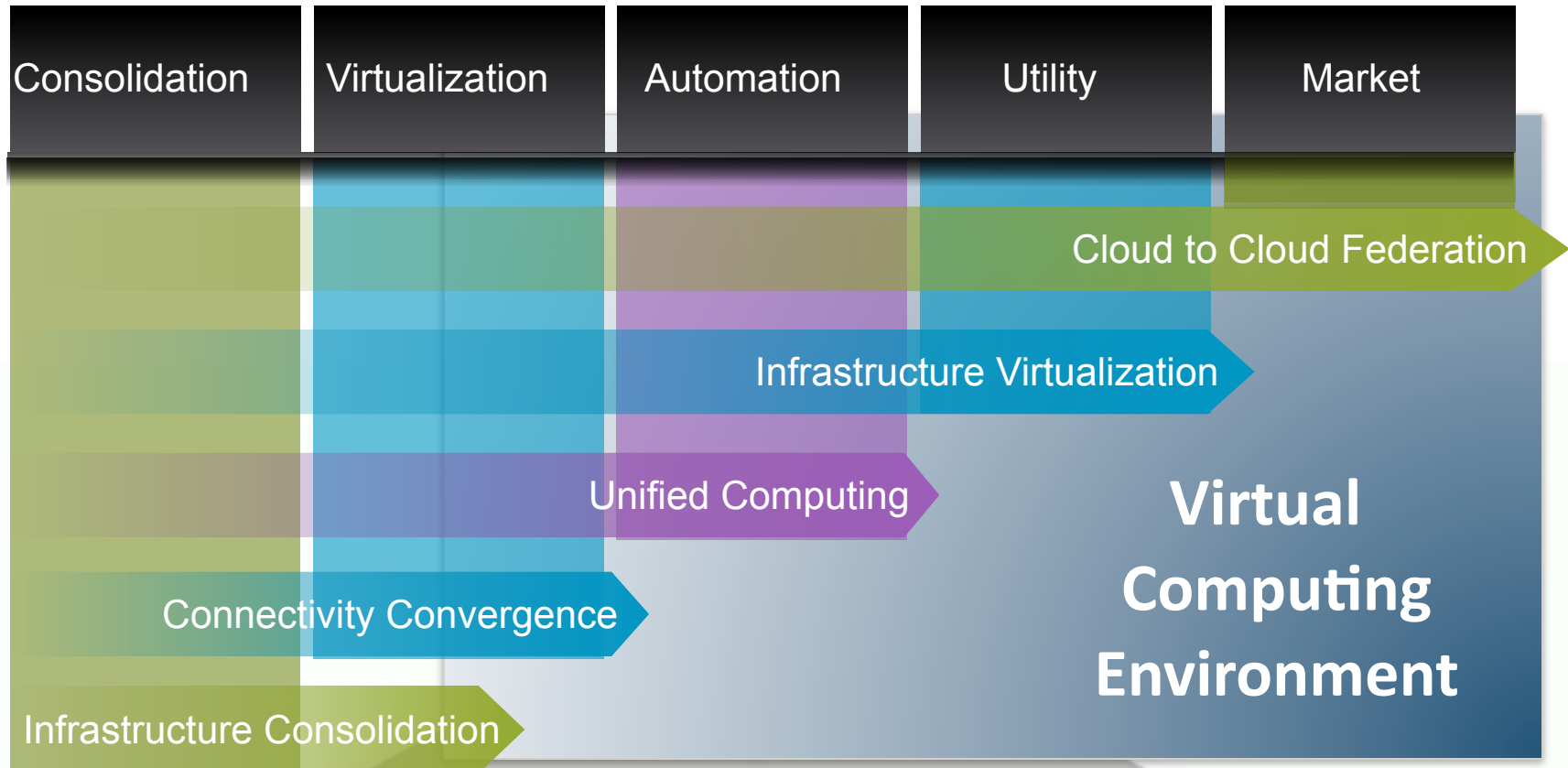
Waves of Information Technology





Virtual Computing Environment Journey

Navigating the journey to virtualization and private cloud



Imagine the power of three ...

(Virtual Computing Environment) x (3) = Customer Success

(Market Leadership + Risk Management + Innovation + Services & Support + Ecosystem Reach)

Vblock Infrastructure Packages

Managing risk while delivering the power of virtualization

What is it:

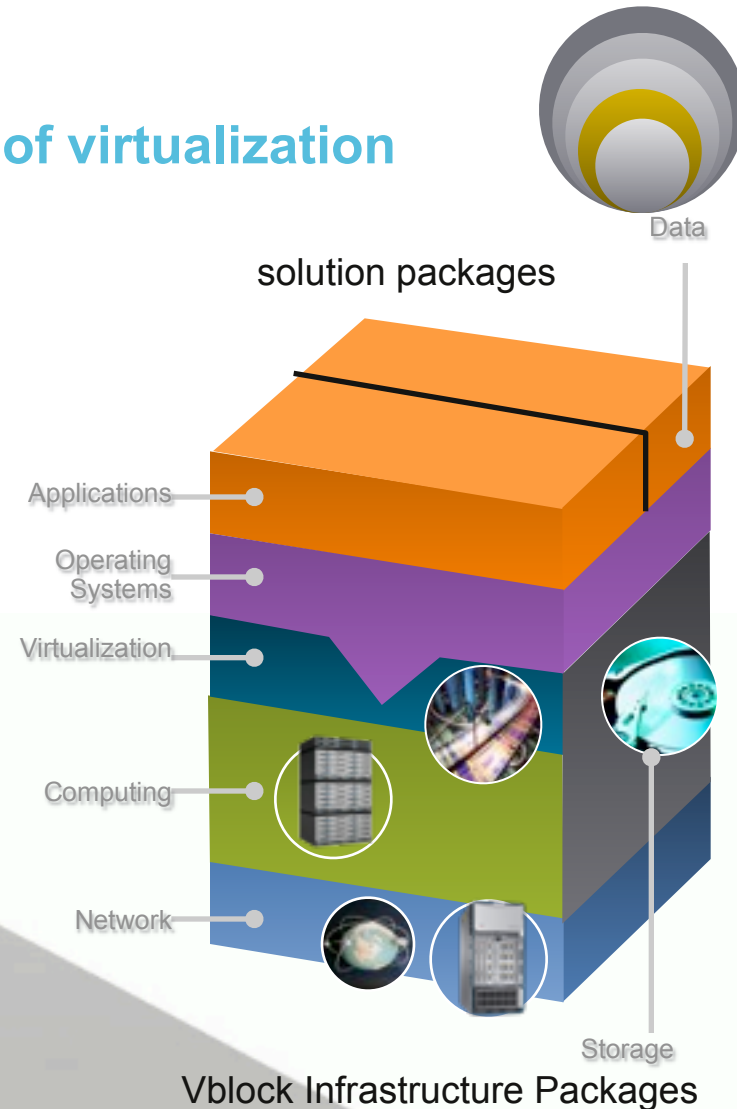
The combined best-of-breed technologies from Cisco and EMC, together with VMware – pre-integrated, tested, and validated to redefine the foundation of datacenter virtualized infrastructure.

How it works:

Rather than buying and assembling individual components, now acquire validated Vblock Infrastructure Packages direct or from partners with a seamless services and support experience.

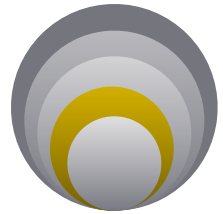
Benefits:

- Accelerating the journey to pervasive virtualization and private cloud computing while lowering risk and operating expenses
- Customer assets (operating systems, applications, and data) are on-boarded as solution packages



Imagine the power of three ...

Redefining the foundation of data center infrastructure



Vblock Infrastructure Packages

Core platform details

Vblock 2 (3000 – 6000+ VMs)

- A high-end configuration that is completely extensible to meet the most demanding IT needs of large enterprises or service providers

Vblock 1 (800 – 3000 VMs)

- A mid-sized configuration to deliver a broad range of IT capabilities to organizations of all sizes

Vblock 0 (300 – 800 VMs)

- An entry-level configuration to meet the IT needs of small datacenters
- Test/development platform for Partners and customers



Imagine the power of three ...

Scaling virtualized datacenter infrastructure backed by single support model



VCE Support - Windows Internet Explorer

http://vcesupport.com/index.htm

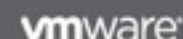
File Edit View Favorites Tools Help

Favorites EMC Horia MSN Suggested Sites Web Slice Gallery

VCE Support

Page Safety Tools

Efficiency. Control. Choice.



Home

FAQ

Contact Us

Support Form

Support for VCE Coalition Services

Through our strategic partnership, Cisco, EMC, and VMware have developed this support center to enhance the delivery of the VCE seamless support experience to our joint customers. This support center is intended to give you fast technical assistance in order to optimize your Vblock solution while also reducing complexity in your support experience. Our team of cross-company, cross-product trained specialists are prepared to bring their combined expertise to bear for rapid Vblock problem resolution.

If our [FAQ](#) does not answer your question, please submit a product/support request using our [support form](#).



© 2010 VCE Coalition | [Privacy Policy](#)

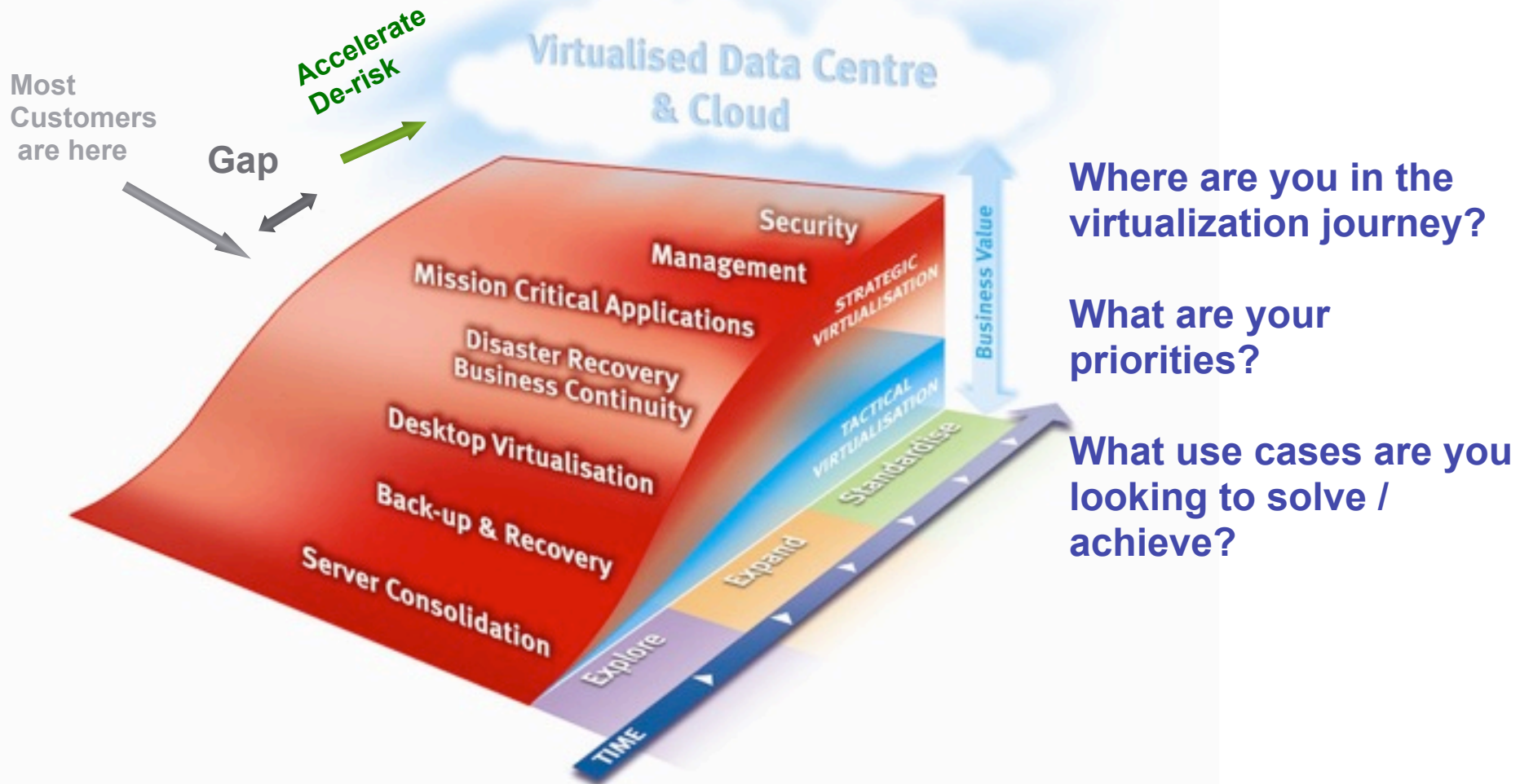
Error on page.

Internet | Protected Mode: On

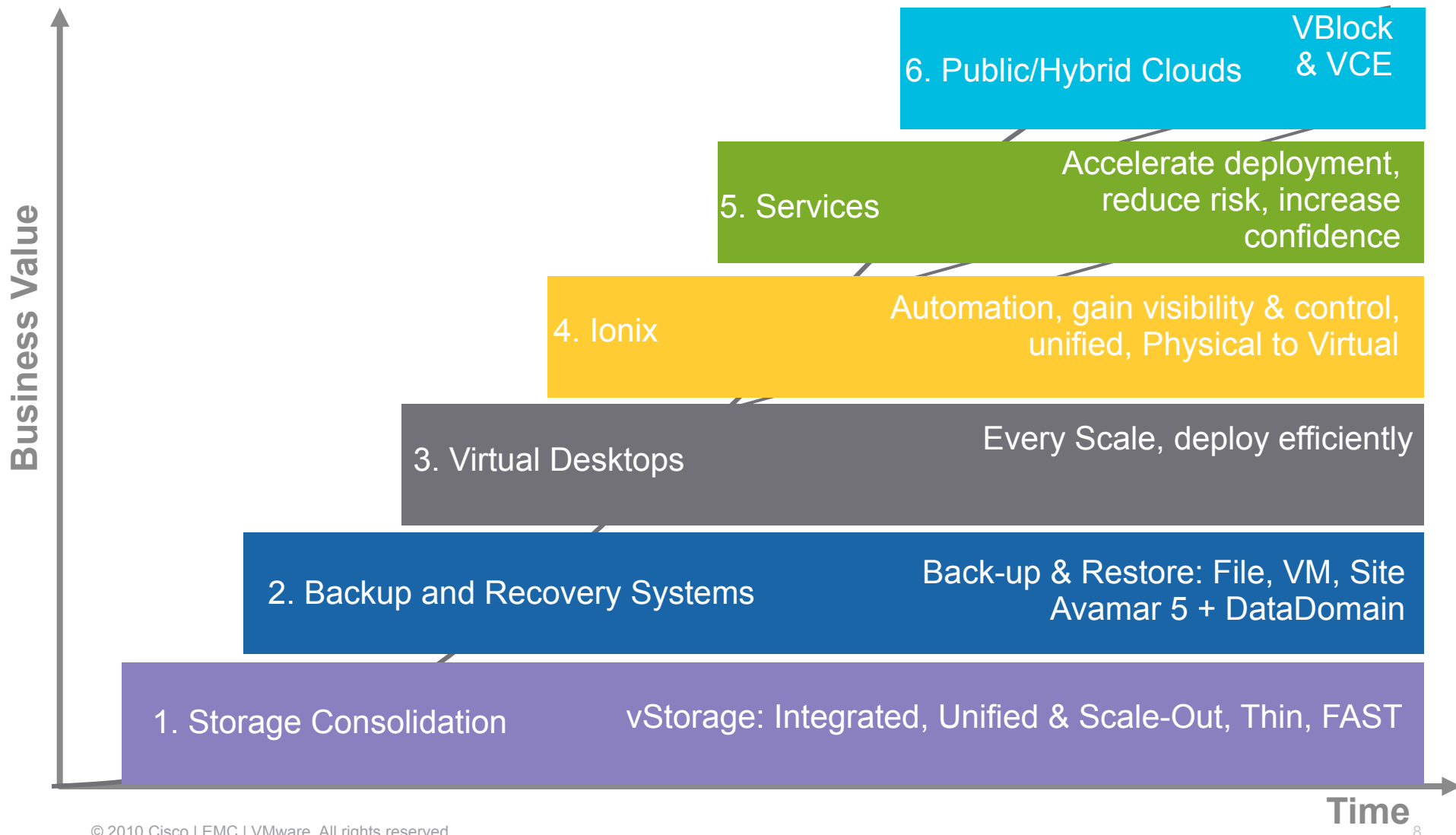
100%

9:05 AM
3/17/2010

The Journey to Private Cloud



Building fully virtualized Datacenter...



1. Storage Consolidation

vStorage: Integrated, Unified & Scale-Out, Thin, FAST

Vblock Infrastructure Packages

Vblock 1 architecture details

vSphere/ESX 4.0

- 16:1 consolidation
- 1024 VMs

CX4-120/240/480

- RAID-5 400 GB Fiber Channel

BW Oversubscription = 8:1

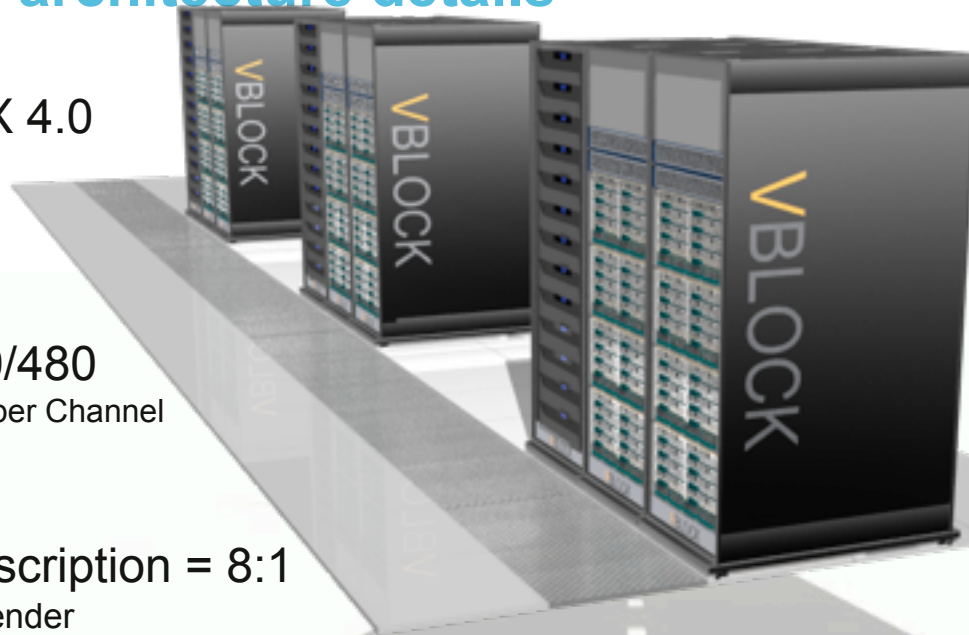
- 2:1 at Fabric Extender
- 32:8 at 6140

2 x Nexus 6140

- 80 FCoE ports
- 16/32 FC ports
- 16/0 FCoE ports
- layer 2 connectivity

8 x UCS 5100 chassis

- 8 blades/chassis
- 2 x 4 core Xeon 5500 Blade
- 96 GB DDR3 RAM
- 1 CNA / blade (2 x FCoE)



Imagine the power of three ...

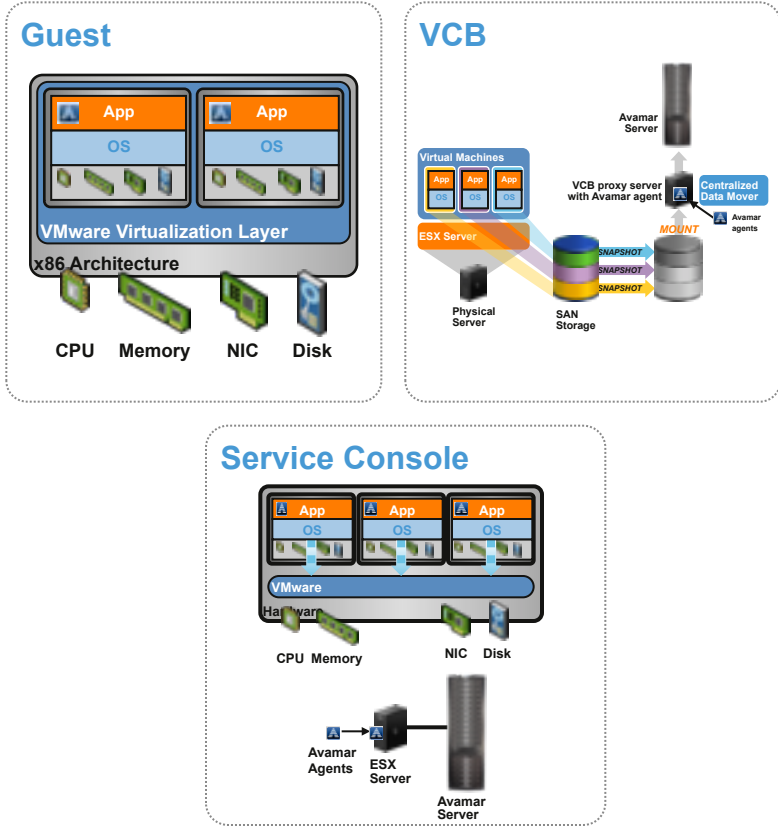
Combining best of breed technologies from market leaders



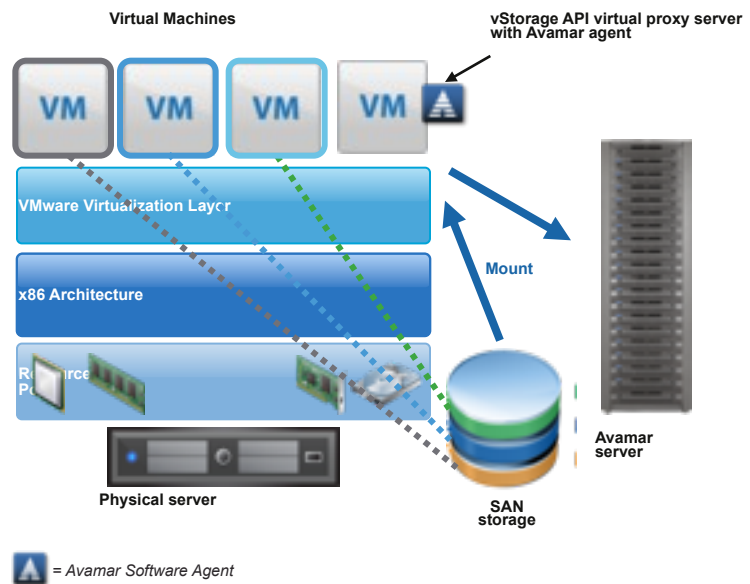
2. Backup and Recovery Systems

Back-up & Restore: File, VM, Site Avamar 5 + DataDomain

Vmware Backup

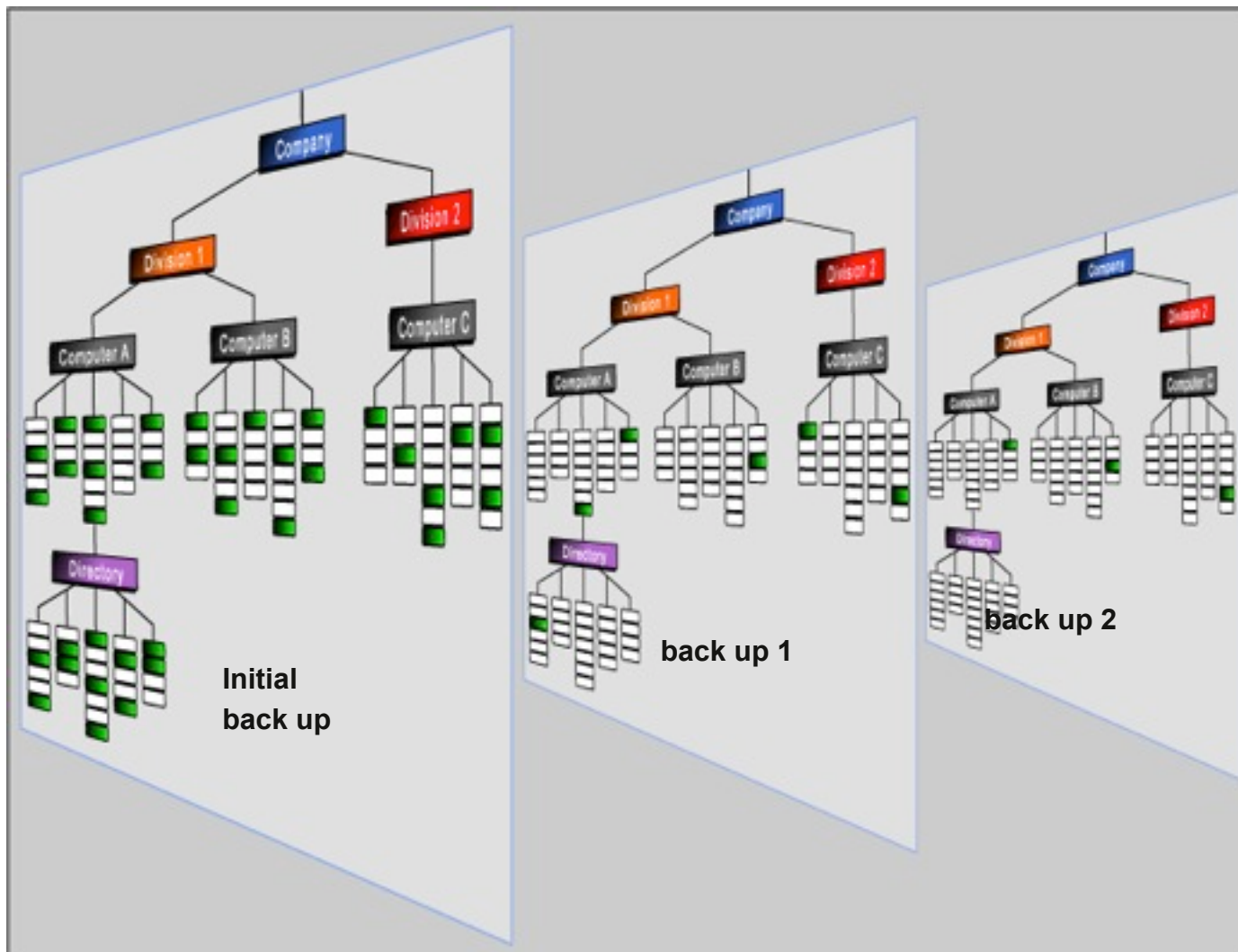


Vmware vSphere4 Image Backup

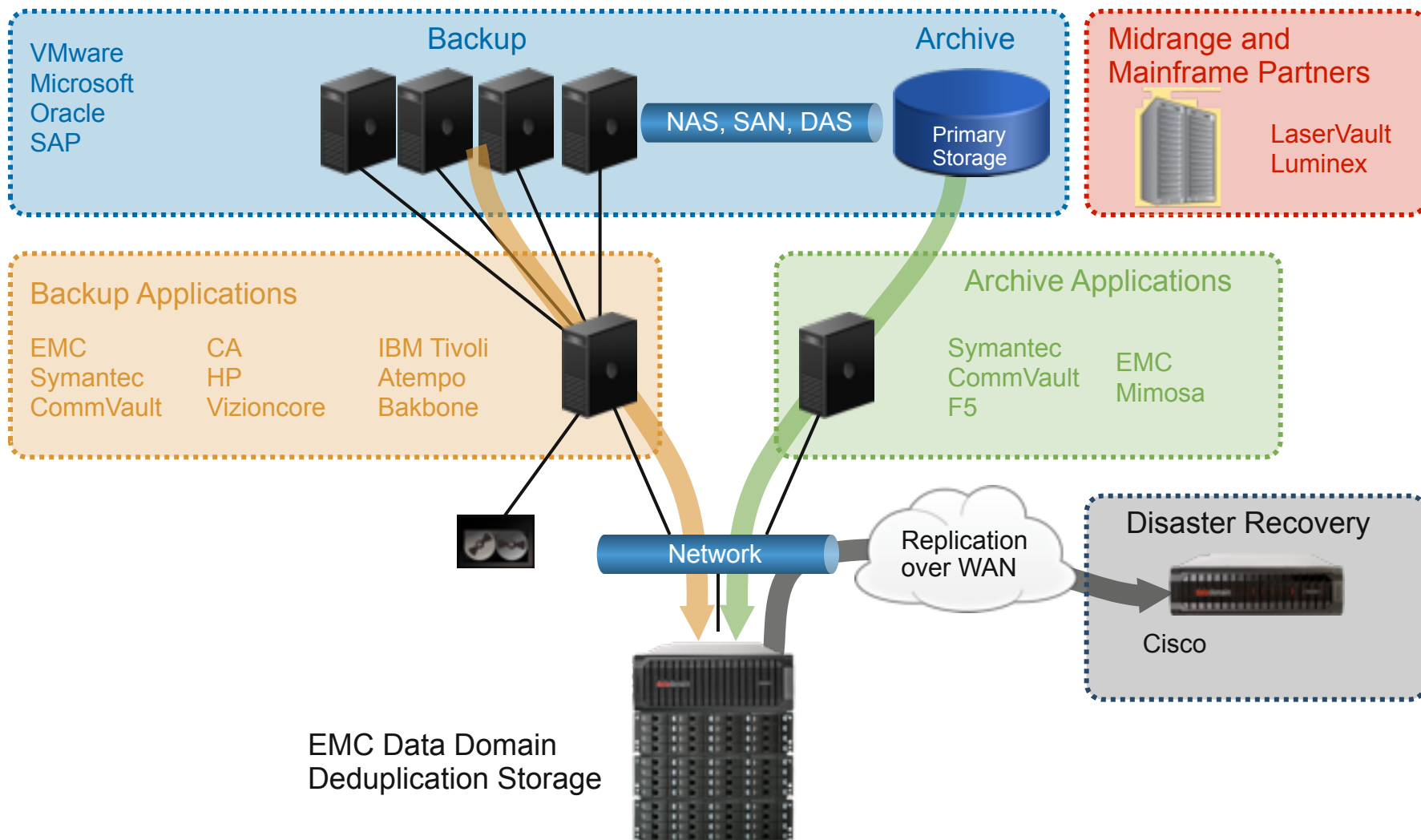


VMware vStorage API Integration

Avamar Day-Over-Day View



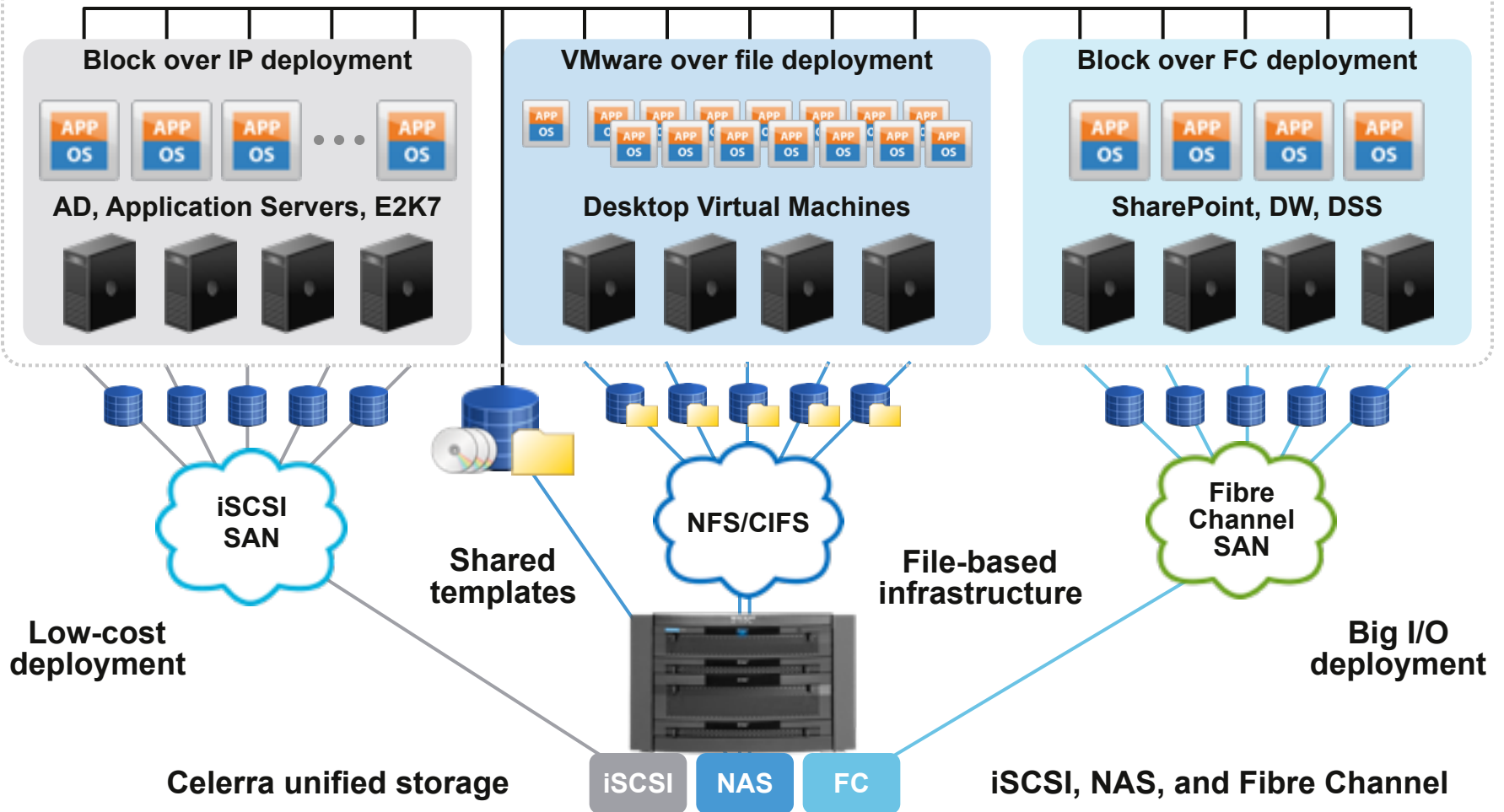
Data Domain Infrastructure and Ecosystem



3. Virtual Desktops

Every Scale, deploy efficiently

VMware Infrastructure Data Center



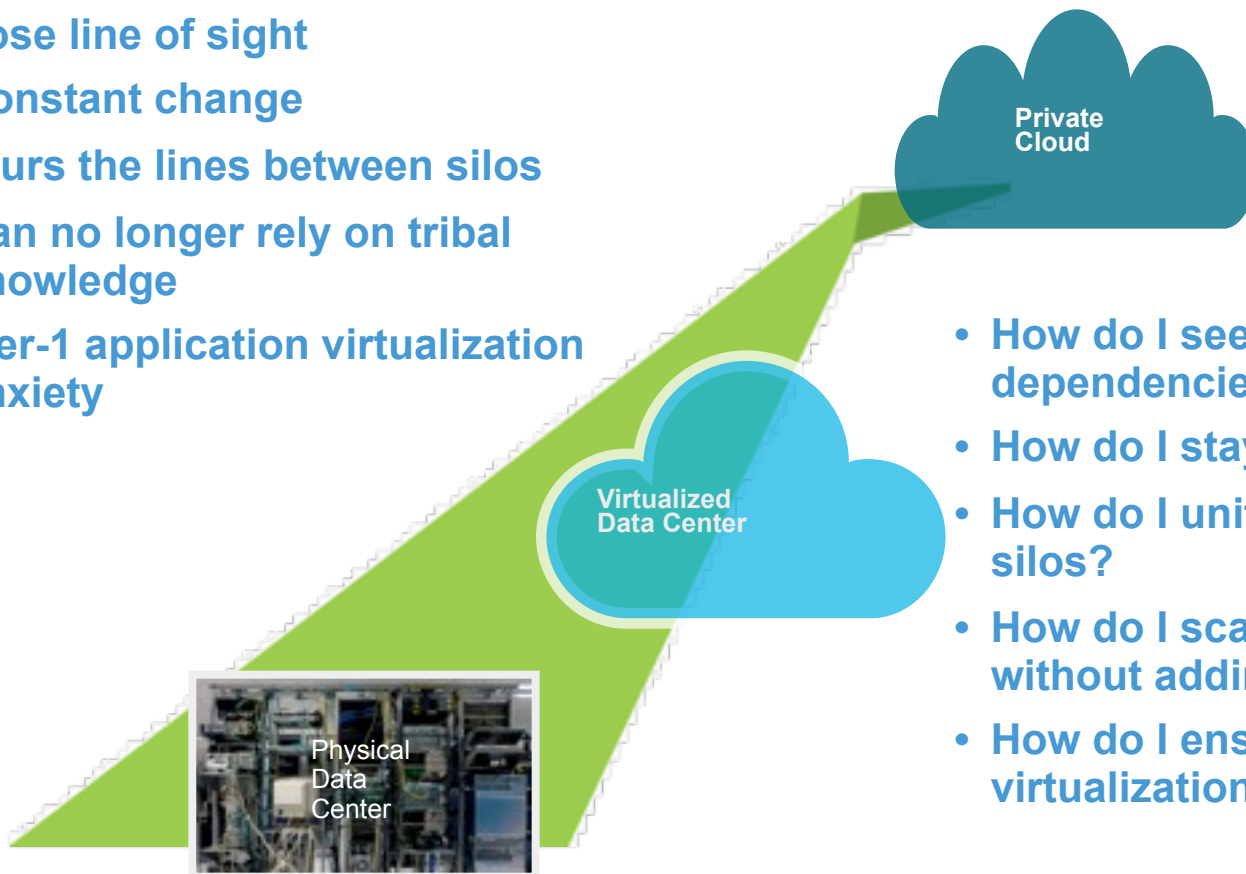
4. Ionix

Automation, gain visibility & control,
unified, Physical to Virtual

on the Journey

Management Complexity Grows

- Lose line of sight
- Constant change
- Blurs the lines between silos
- Can no longer rely on tribal knowledge
- Tier-1 application virtualization anxiety

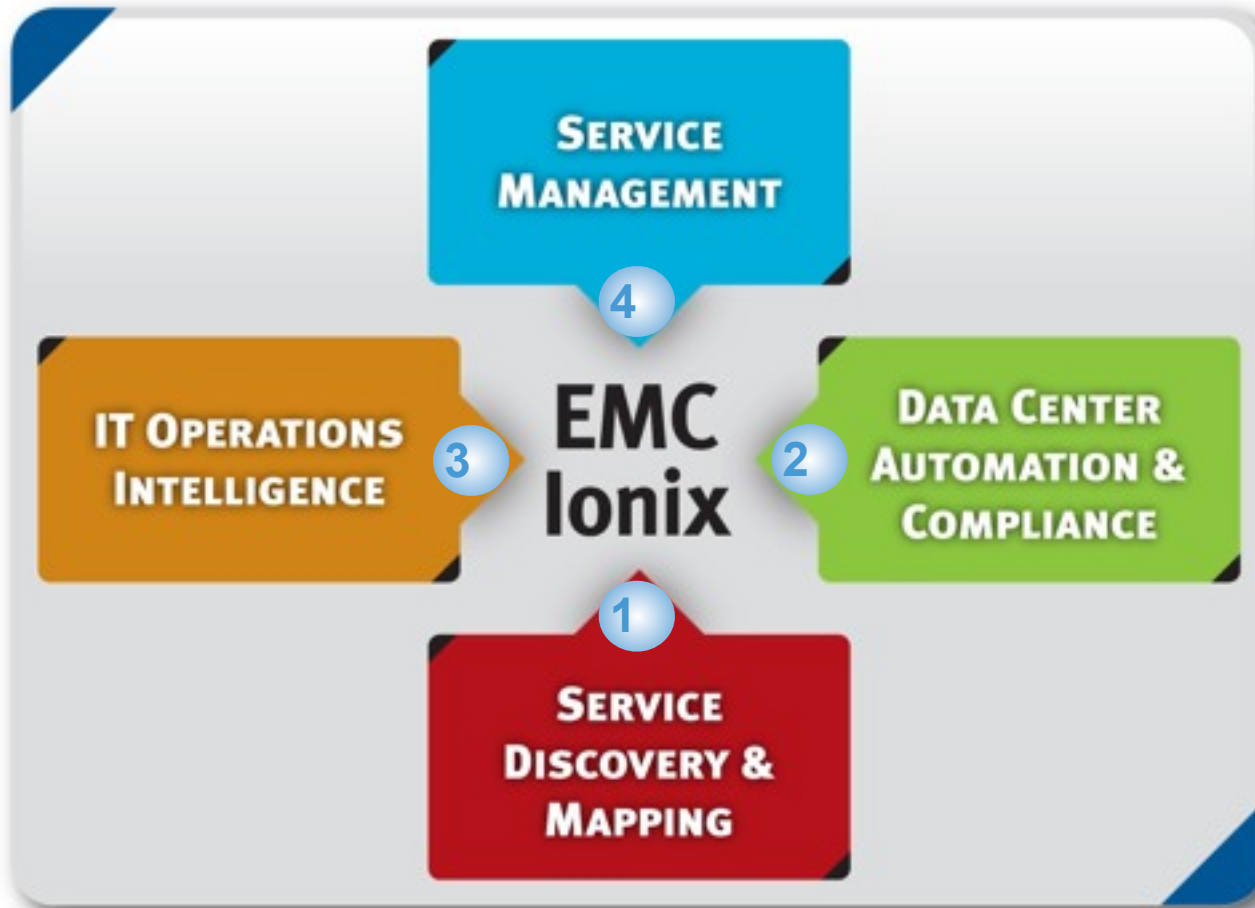


- How do I see all my application dependencies?
- How do I stay compliant & secure?
- How do I unify management across silos?
- How do I scale my data center without adding staff?
- How do I ensure successful virtualization of my complex apps?

“If new products do not emerge to help automate virtualization management and simplify the ongoing operations of the datacenter, virtualization adoption will actually stall...”

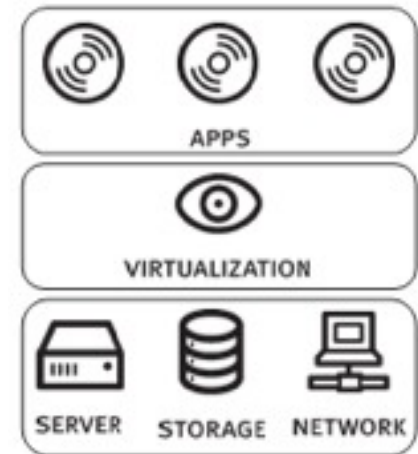
EMC Ionix Management Solutions

Simplifying IT Management



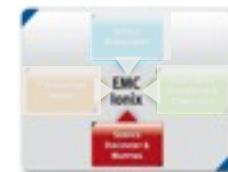
With EMC Ionix:

1. Know Exactly What You Have.
2. Always be Compliant.
3. Pinpoint the Problem.
4. Maximize Process Efficiency

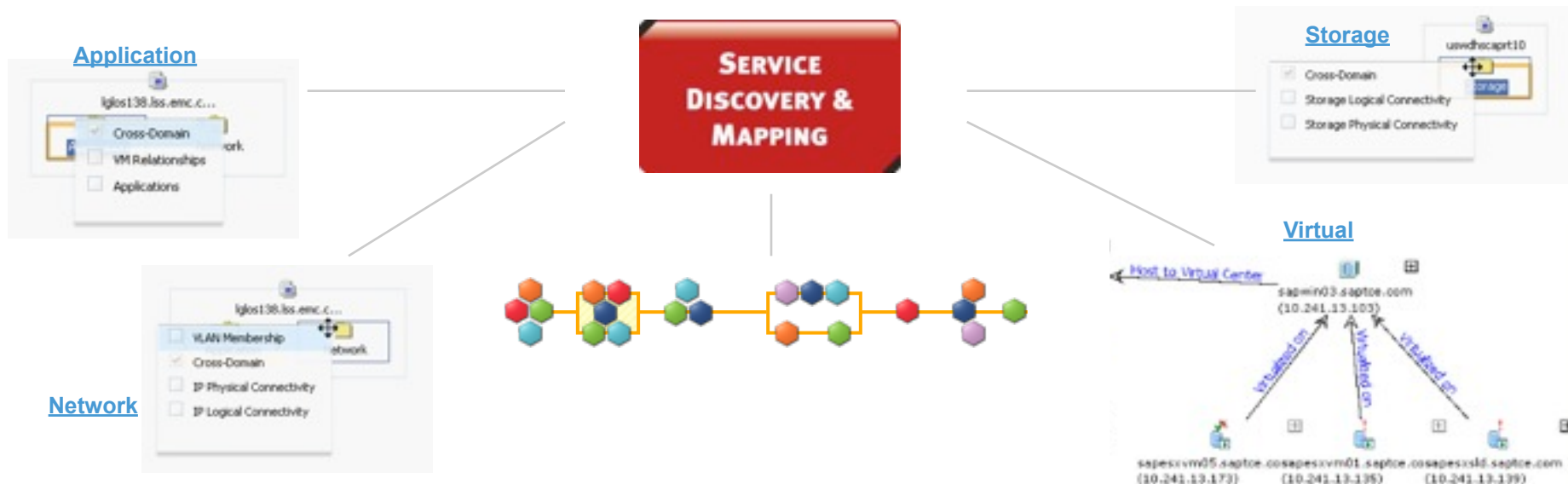


With EMC Ionix You Can...

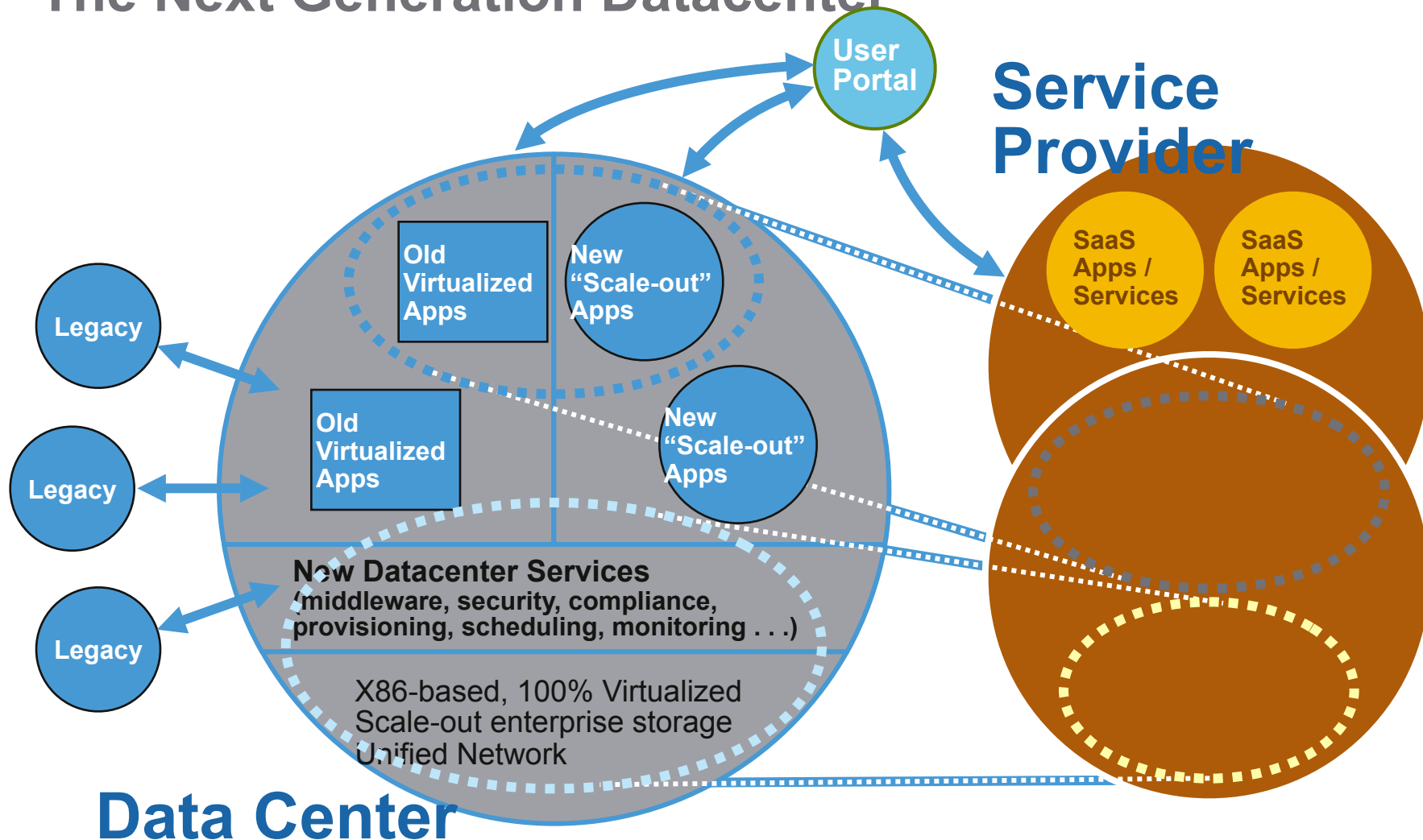
Know Exactly What You Have



- Intelligently migrate with accurate and complete information
 - Crisp line of sight across the stack
- Easily discover previously hidden application dependencies
 - Mitigates the risk of moves and changes
- Confidently virtualize complex apps
 - Identifies application dependencies so you can precisely migrate complex applications to virtual



The Next Generation Datacenter



EMC Booth - demos

Imagine the power of three...

- Cisco UCS + EMC Storage + VMware OS
- **Demos available for a Virtual Environment**
 - Storage Management – VMware aware
 - Backup for VMs
 - Multipathing / load balancing in VMware environment
 - Thin provisioning / Fast cloning

Defining a Cloud Strategy

1 Define the Market
Investigate the specific market situation – geography, customer base, etc

2 Develop the Offering
Building of a service catalog – This might be a partnership exercise

3 Develop the Architecture and Operation
WHAT type of infrastructure do we need? WHO will we operate it?

4 Prepare for Execution
Fine tune the Business Case – set up a Project (or Program)

Customer Case – Whats & Hows

					=> HOWs															
<= WHATs	Service	Kano			Machines L - regular	Machines L - quick provisioning	Machines H - regular	Machines H - quick provisioning	Storage L - regular	Storage L - quick provisioning	Archive Storage (Tier L)	Storage M - regular	Storage M - quick provisioning	Storage H - regular	Storage H - quick provisioning	SOAP/EDGE access to storage	Backup - Internal (B2D - Tier L)	Backup - External	2nd Site - Data Vaulting	
		Characteristics	B	P	E															
	Mail services for SMB							xxx					xxx				xxx			
	Mail services for Enterprise							xxx			xx		xxx				xxx			
	Collaboration for SMB						x	xx		xx			xx			xx	xxx			
	Collaboration for Enterprise						x	xx		xx			xx			xx	xxx			
	Virtual Desktop for SMB					xx		x		x			xxx				xx			
	Virtual Desktop for Enterprise					xx		x		x			xxx				xx			
	Customer Backup/Synching for SMB						xx		xx		xx							xxx		
	Customer Backup/Synching for Enterprise						xx		xx		xx							xxx	x	
	Virtual Servers (Infrastructure or Appl. Hosting)							xxx					xxx	xx			xxx			
	Business Continuity (Failover Datacenter)																			
							4	6	15	4	6	6	19	2						

Example

EMC²
where information lives[®]