Cisco Expo 2011
Collaboration and Virtualization without Borders.
Changing the way we work, live, play and learn.

VCE - An Opportunity To Better Leverage the Infrastructure

Cornel Popescu, Team Leader IT Systems Solutions
Cristian Ionescu, Team Leader Netcom Solutions

30 March 2011, Cisco Expo
Bucharest

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- About Frontal Communication
- Partnerships
- Our resources
- What is VCE
- VBlock Powered Solution
  - Integrated best-of-breed technology
  - Factory ready VBlock infrastructure
  - Highly scalable options
  - Fully optimized for VDI

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COMMUNICATION

CISCO
PARTNER
Gold
Certified

- Established in 1994
- CUSTOMER Oriented Company
- Top Romanian SYSTEM INTEGRATOR
- Cisco GOLD Partner (local support)
- Cisco Global Award Winner
- EMC Velocity Partner
- VMware Enterprise Partner
- IBM Business Partner – Tier 1
- Omnilogic strategic partnership
- Authorized Cisco and VMware Training Center

EMC²
VELOCITY²
PARTNER

vmware
PARTNER
ENTERPRISE
SOLUTION PROVIDER

PEARSON
VUE

PROMETRIC

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Strategic Partners

Solution Partners

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- DATA CENTER
  - Storage
  - Switching
  - Applications
  - Security
- NETWORK SYSTEMS
  - Routing
  - LAN Switching
  - Network Management and Optimization
- MOBILITY SOLUTIONS
  - Wireless LAN
  - Remote Access
  - Business Class Teleworker Solutions
  - Mobile Solutions for
  - Unified Communications
- SECURITY
  - Firewall
  - Attack and Intrusion Prevention
  - Spam and Virus Protection
  - NAC, VPN
  - Security Management
  - Physical Security
  - Web and Email security
  - Video Surveillance
- UNIFIED COMMUNICATION
  - IP Telephony
  - Applications
  - Contact Center
  - Voice Management
  - Vice traffic management
  - Call accounting

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- Certifications
  - Gold Certified Partner
- Specialization
  - Advanced Routing & Switching
  - Advanced Security
  - Advanced Unified Communications
  - Advanced Wireless LAN
  - Advanced Data Center Network Infrastructure
  - Advanced Data Center Storage Networking
- Other Authorizations
  - Cisco Learning Partner Associate - Category A
  - Academy Network Partner

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- VCE – VMware – Cisco – EMC
- VCE - Virtual Computing Environment, a collaboration between VMware, Cisco and EMC Corporation to deliver a qualified integrated platform for virtualization
- VCE's Vblock Infrastructure Packages deliver a complete IT infrastructure that integrates best-of-breed virtualization, networking, compute, storage, security, and management technologies

CISCO

EMC² where information lives®

vmware®

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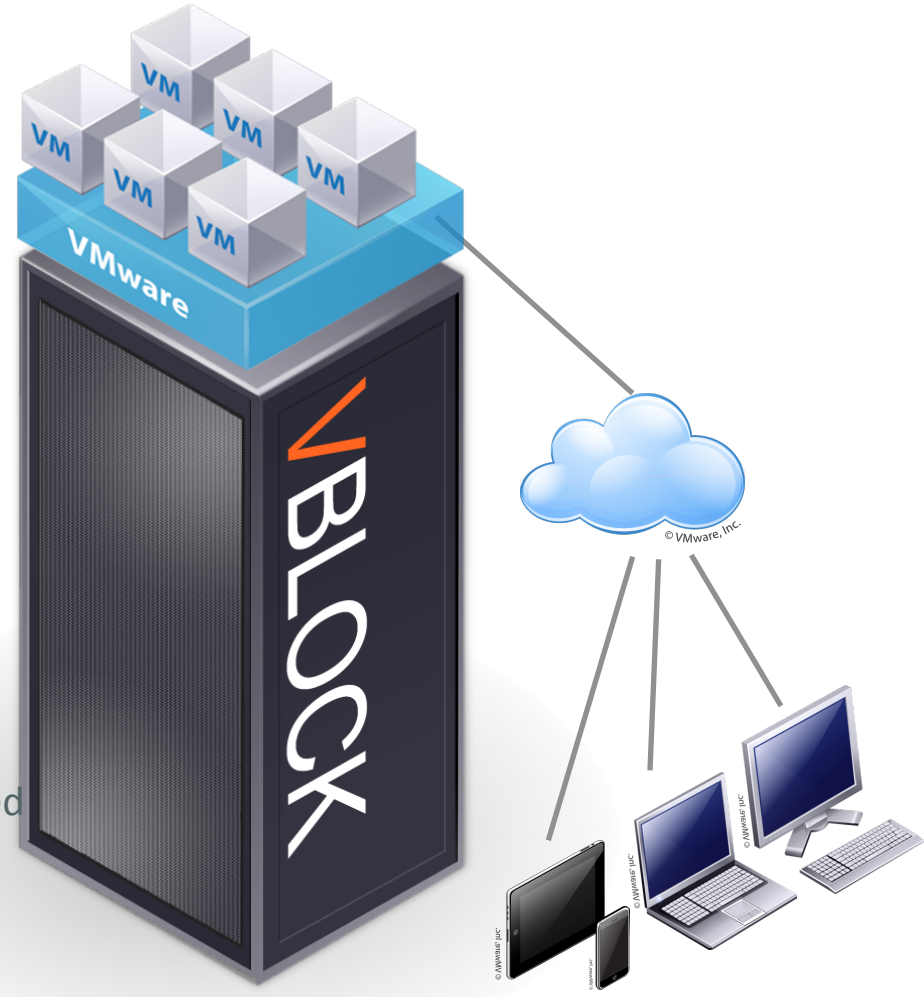
1. Integrated best of breed technology & support
   - Delivered by market leaders Cisco, EMC, and VMware
   - **World class seamless support**
2. Factory ready Vblock infrastructure
   - Pre-Integrated
   - Pre-Architected
   - Pre-Tested
3. Highly scalable options
   - Scale-out or scale-up options
4. Fully optimized for VDI deployments
   - **Purpose built design for next gen virtualizated data center**
   - **Enterprise-class capabilities**



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1

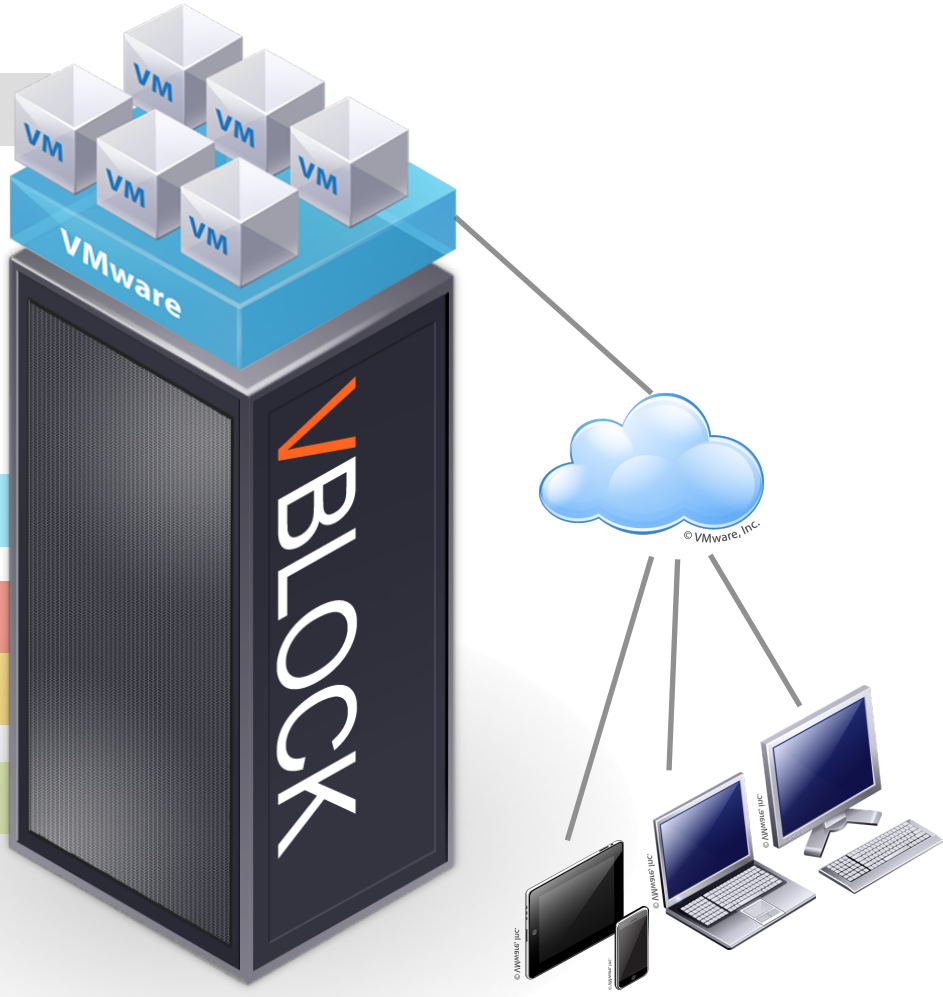
Virtual Desktops

vmware Virtualization

CISCO Unified Computing

Network

EMC² Storage



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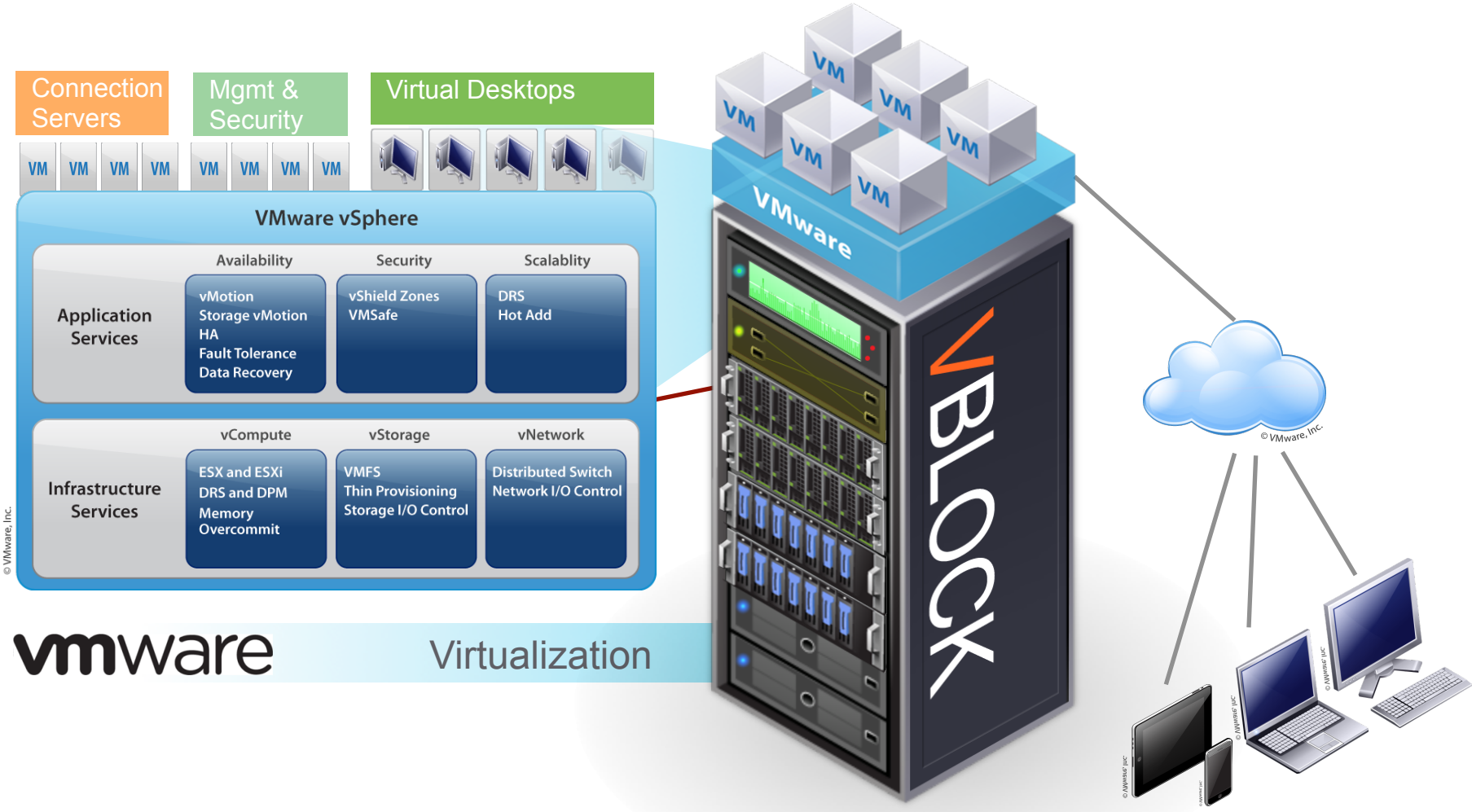

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Unified Fabric

Fabric Extender

Virtualized Adapter

Scale Out

Service Profiles

Extended Memory

Virtual switch
(Nexus 1000V)

CISCO

Unified Computing

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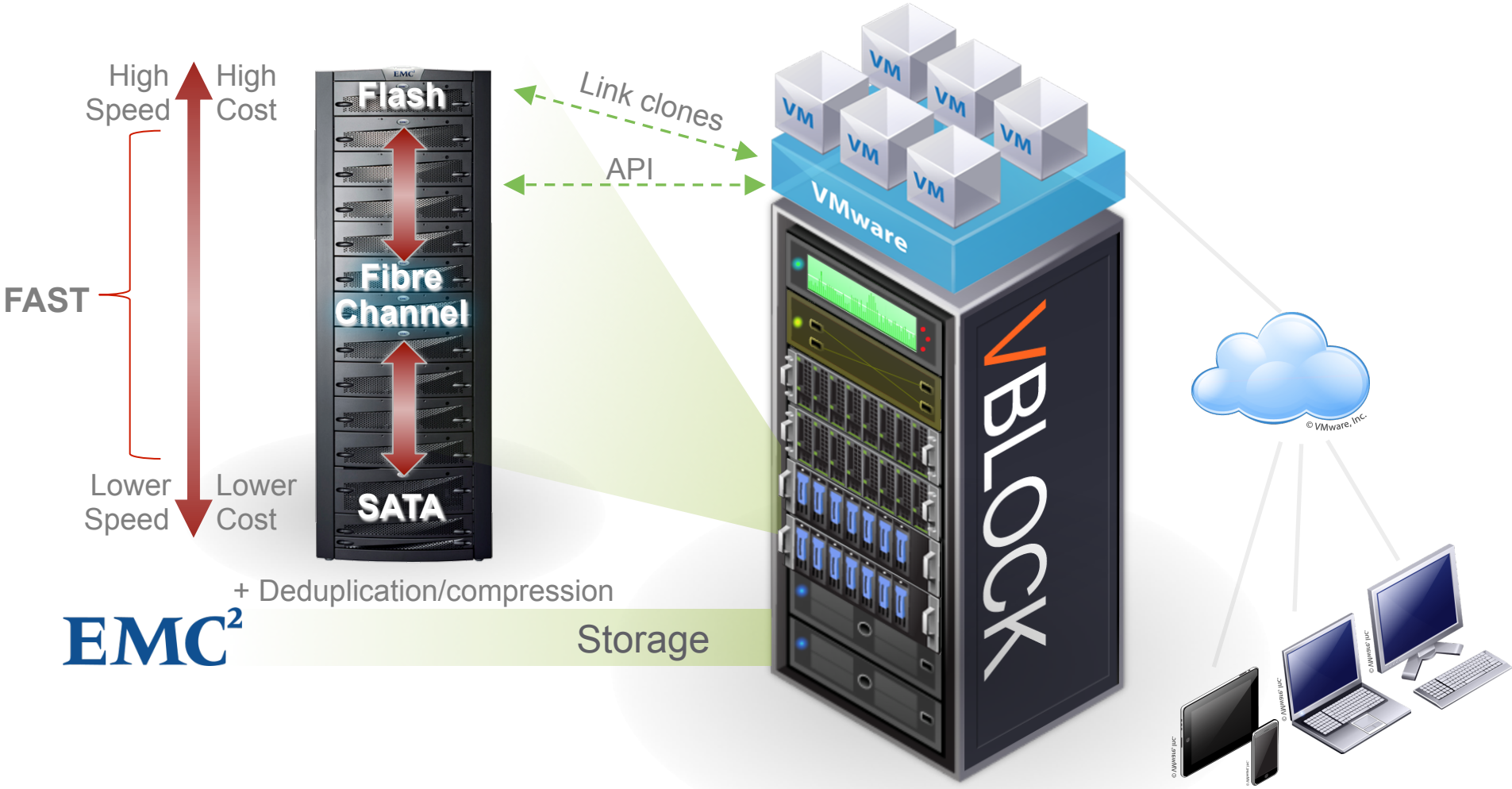

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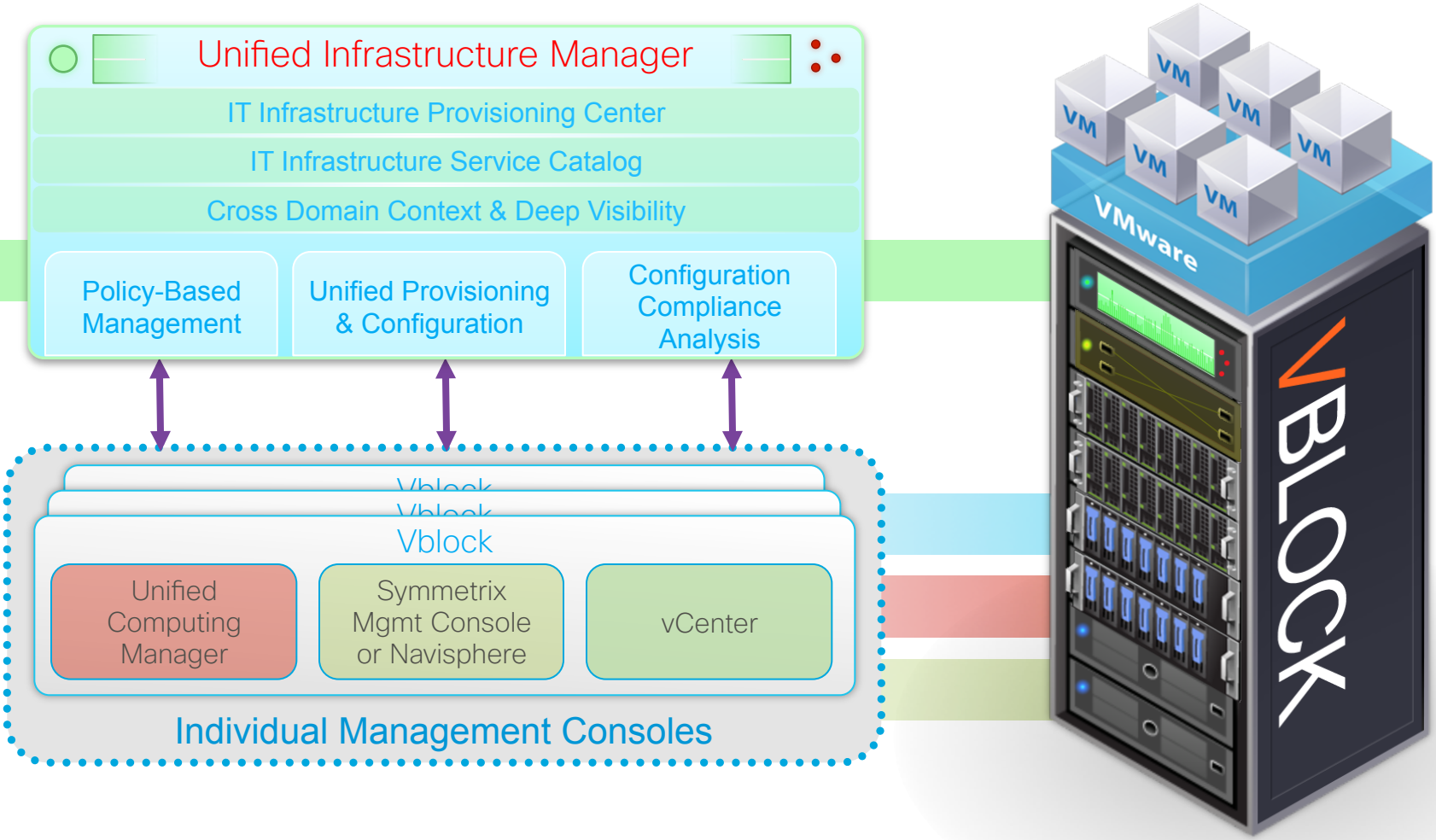

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VMware Zero-Touch Infrastructure

vCenter, vCloud (or other) Portals

Enterprise Management Platforms

Provisioning and synchronization

Configuration and compliance events

Unified Vblock Management

Ionix Unified Infrastructure Manager

- IT Infrastructure Provisioning Center
- IT Infrastructure Service Catalog
- Cross-domain context and deep visibility
- Policy-based management
- Unified provisioning and configuration
- Configuration compliance analysis

Unified multi-Vblock element management

Standalone component management

- Cisco UCS Manager
- Cisco MDS, Nexus
- EMC Unisphere
- EMC Symmetrix Management Console

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Reduce

time to resolution

- 120 support engineers cross-trained on Vblock technologies
- 24x7x365 follow-the-sun support centers in 11 global locations
- Cooperative agreements among engineering teams

Simplify

support process

- www.vcesupport.com: the primary destination for Vblock technical support
- 1-800 # for phone support, or engage VCE coalition vendor support
- VCE seamless support enabled for Acadia customers

Increase

availability, reliability and productivity

- Problem re-creation labs in Apex, North Carolina and Cork, Ireland
- Test and validation labs in Santa Clara, California and Hopkinton, Massachusetts

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2

Pre-Integrated

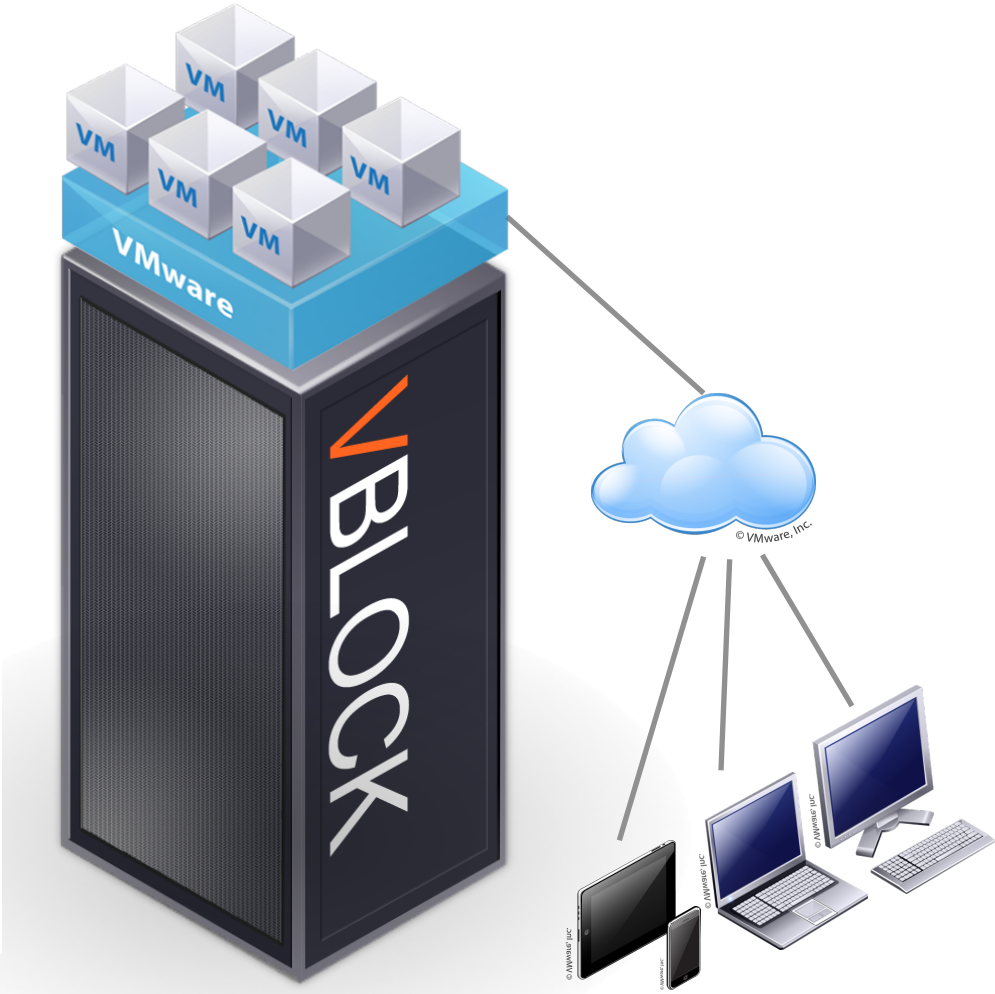
- Market & technology leaders; Cisco, EMC, and VMware deliver integrated best-of-breed technologies for VDI

Pre-Architected

- Take the guesswork out of architecting virtual desktop deployments

Pre-Tested

- Save weeks of validation testing so you can get out of the lab and into production



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3

Vblock 2

- A high-end configuration that is completely extensible to meet the most demanding IT needs of large enterprises or service providers
- Cisco UCS B-series, EMC VMAX & VMware vSphere

Vblock 1

- A mid-sized configuration to deliver a broad range of IT capabilities to organizations of all sizes
- Comprised of Cisco UCS B-series plus Nexus & MDS storage switching, EMC CLARiiON/Celerra & VMware vSphere

Vblock 0

- An entry-level configuration, ideal for test and development
- Comprised of Cisco UCS B-series, EMC Celerra & VMware vSphere

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4

Vblock Powered Solution for VMware View

Service-Tiering

Performance

Multi-Tenancy

Security

High-Availability

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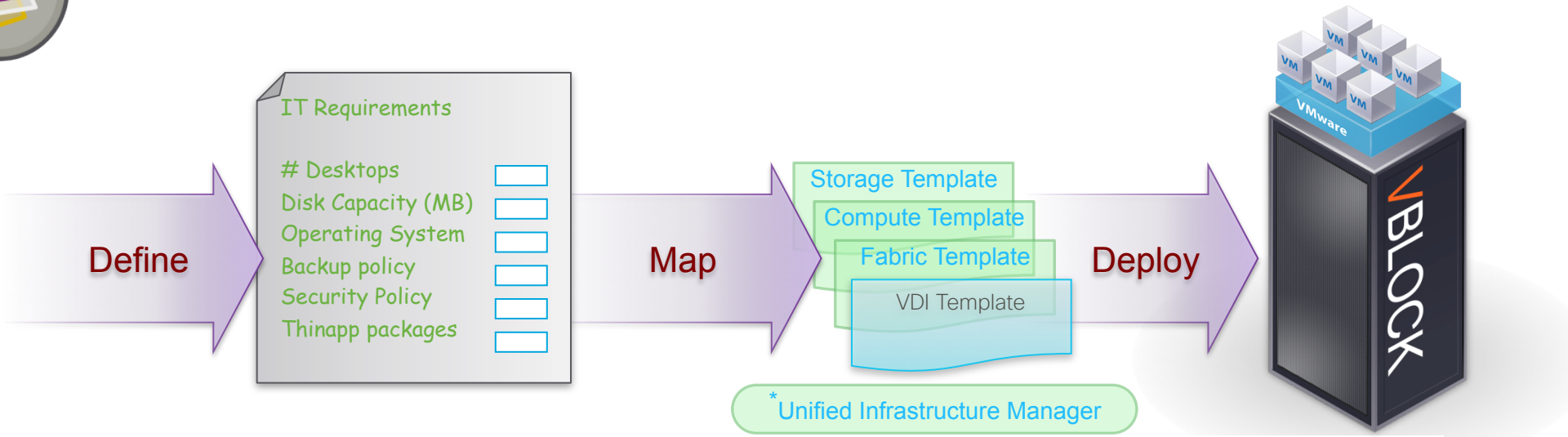

- Templates ensure repeatable, compliant IT processes

  IT defines storage, server, fabric and application and OS configuration policies to meet the business SLAs

- Resources rapidly assigned according to IT policies and SLA reducing time to application availability
- Reduces configuration error and non-compliance

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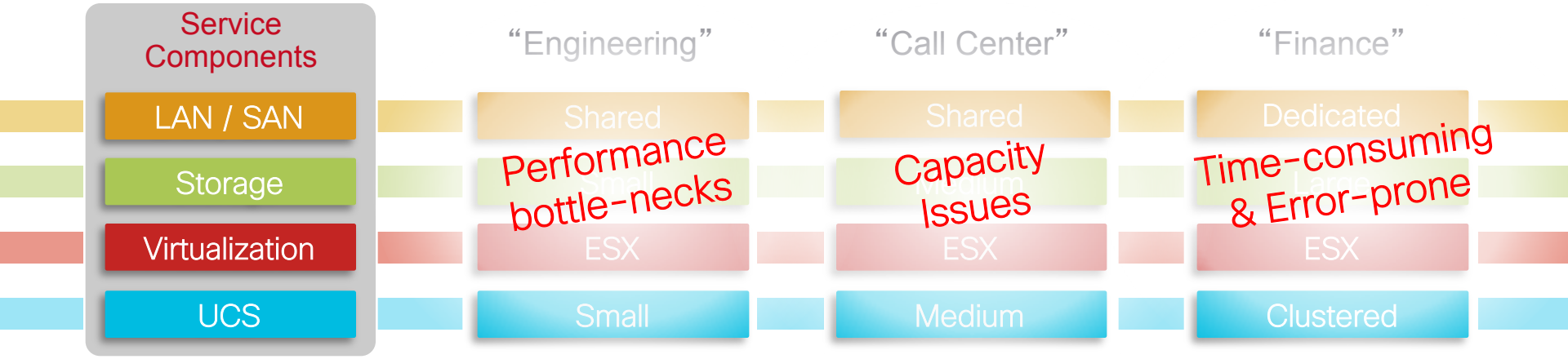

“How can I deliver services with cloud-like agility?”

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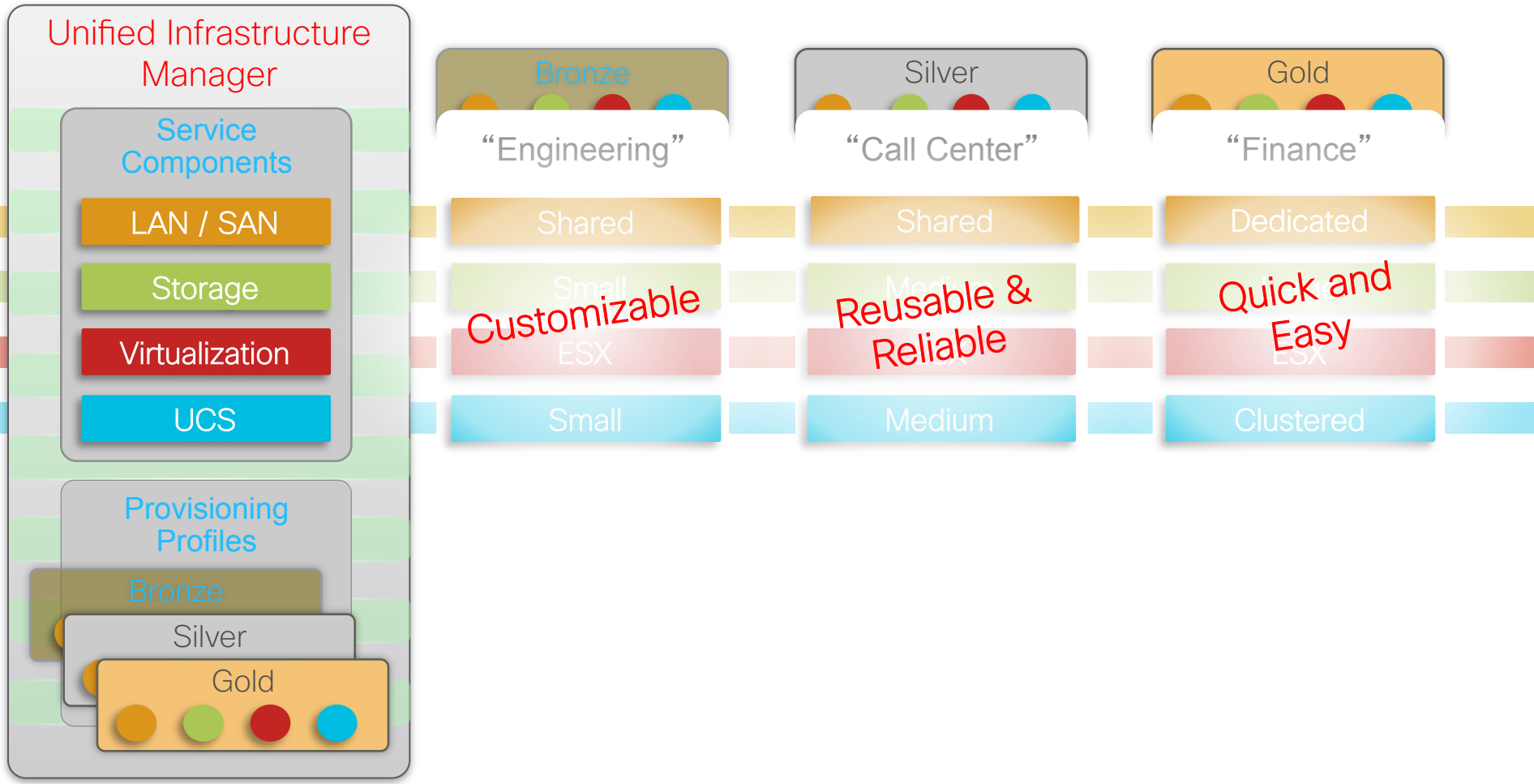

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- Windows 7 is here, we need to be prepared for it
- We spend too much time on desktop support calls
- Managing diverse end point devices is overwhelming & expensive
- We spent too much time recovering lost data from stolen laptops
- We are constantly patching and upgrading applications & OS images
- It is difficult to respond quickly to a mobile & international workforce

at the desktop… …in the Infrastructure?

- For every $1 spend on hardware, we spend $3 to manage it
- We want to deploy VDI in different workgroups
- We don't have several months for POCs, we need VDI now
- It is too difficult to manage the multiple vendors in a VDI solution
- We need better security for our desktops and our datacenter
- We do not know how to architect a VDI solution

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High-density infrastructure

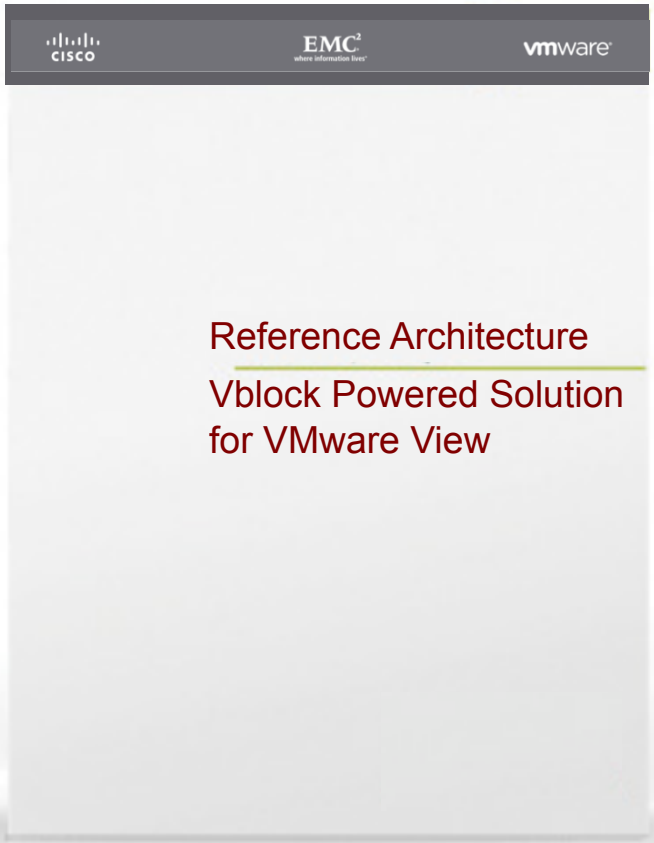
- Vblock 2 : 5000 – 10000 desktops, optimized for performance
- Vblock 1 : 2500 – 5000 desktops, optimized for cost

Validated with VMware View

- View 4.0, 4.5
- Win XP/Win 7 / Linux

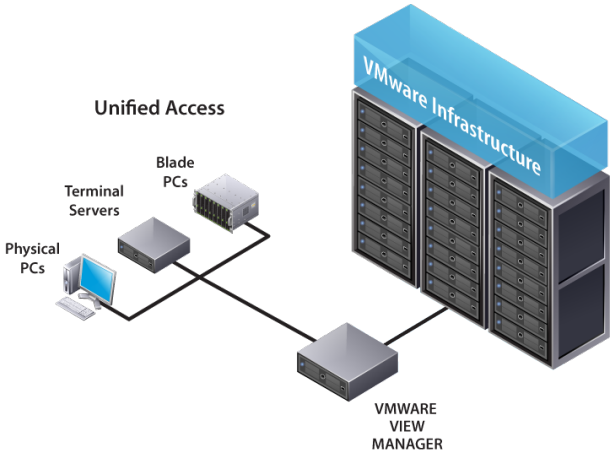
Build in Capacity

- Sufficient extra capacity (CPU, MEM, DISK, NET) to accommodate spikes in performance (e.g., boot storms).



VMware View

- Two VMware View Managers
  - including Cisco ACE Load Balancer
- VMware View composer for linked clone deployment
- Remote desktop protocol was used in client-to-connection server testing



VMware vCenter

- Two servers for virtual desktop management and integration

VMware View virtual desktop hosting

- Two UCS chassis
- 1,250 desktops hosted per chassis

Vblock 1

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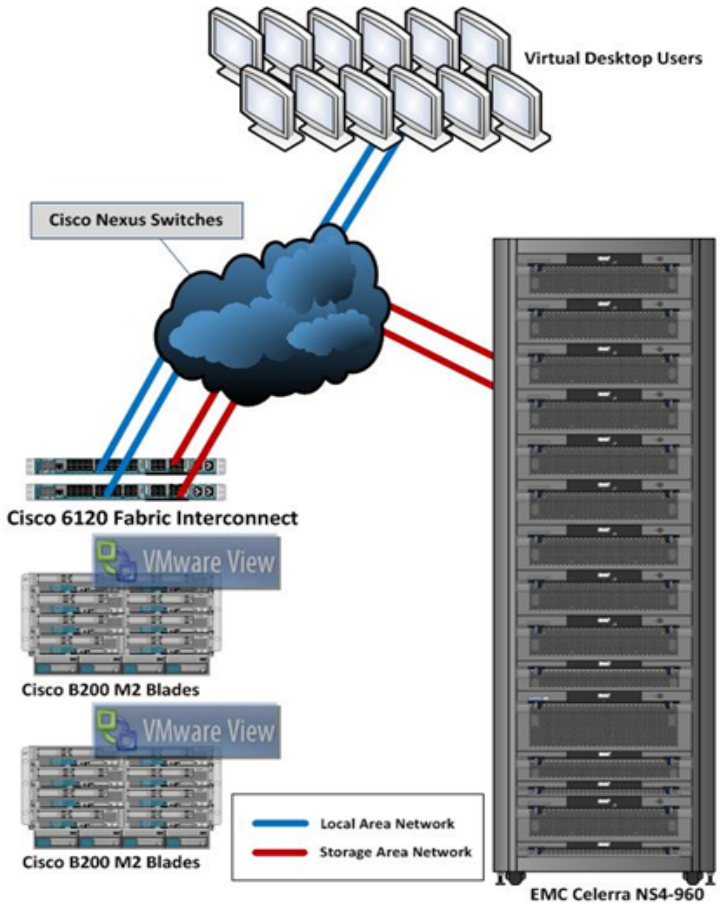

Vblock 1 System components

- **2 UCS chassis (16 blades)**
  - Cisco B200 M2 blades
  - 8 blades per chassis

- Cisco 6120 Fabric Interconnect Modules
- EMC Celerra Unified storage NS-960

2 chassis Vblock1 supports 2,500 workers
4 chassis Vblock1 supports 5000 workers

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End-to-end segmentation of user traffic & data

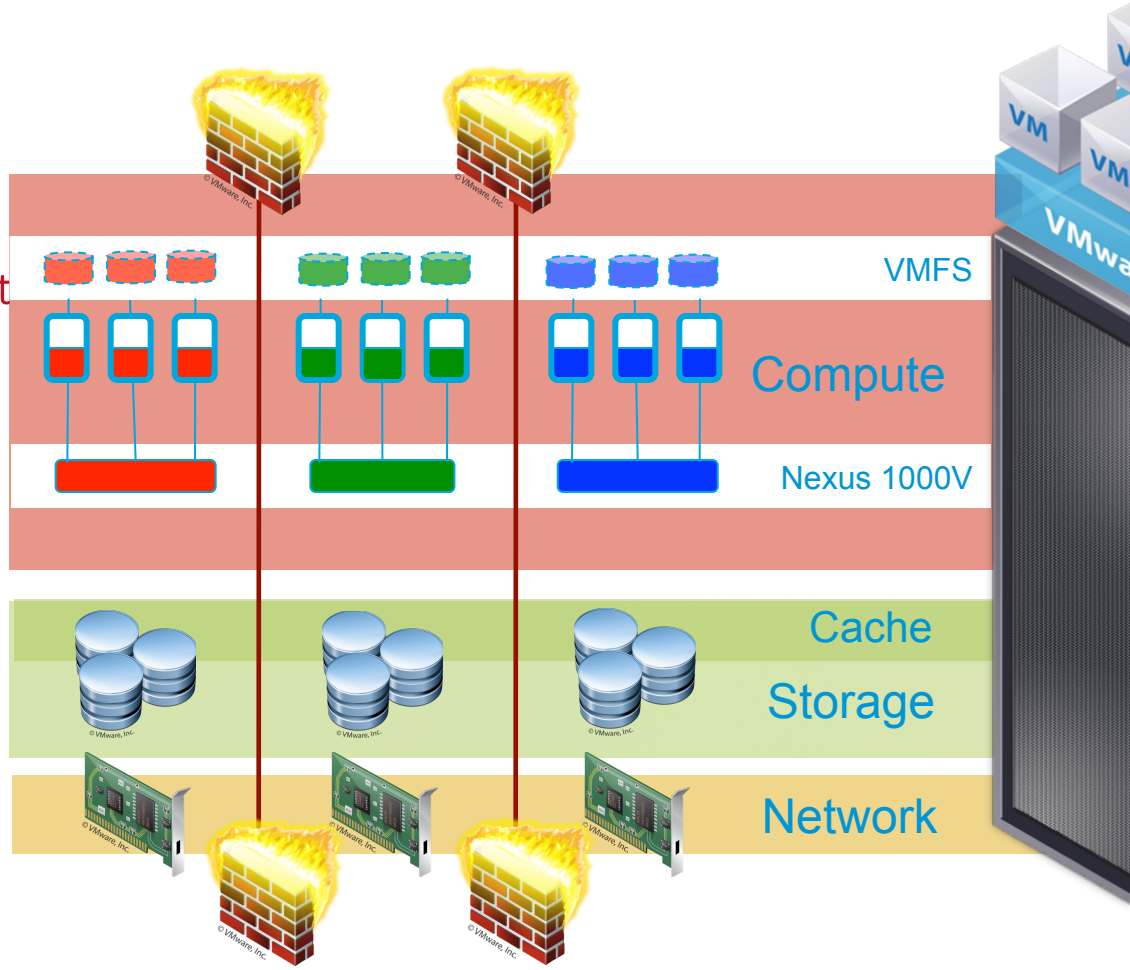
- per-tenant/per-VM security policies

Consistent per-VM policy enforcement & visibility

Granular segmentation options

- vSheild Zones, VLAN, Private VLANs, ACLs, etc
- LUN masking, Zoning & VSANs, etc.
- Integration with existing Cisco ASA & ACE

Segmented management traffic with Authn, Authz & Accounting



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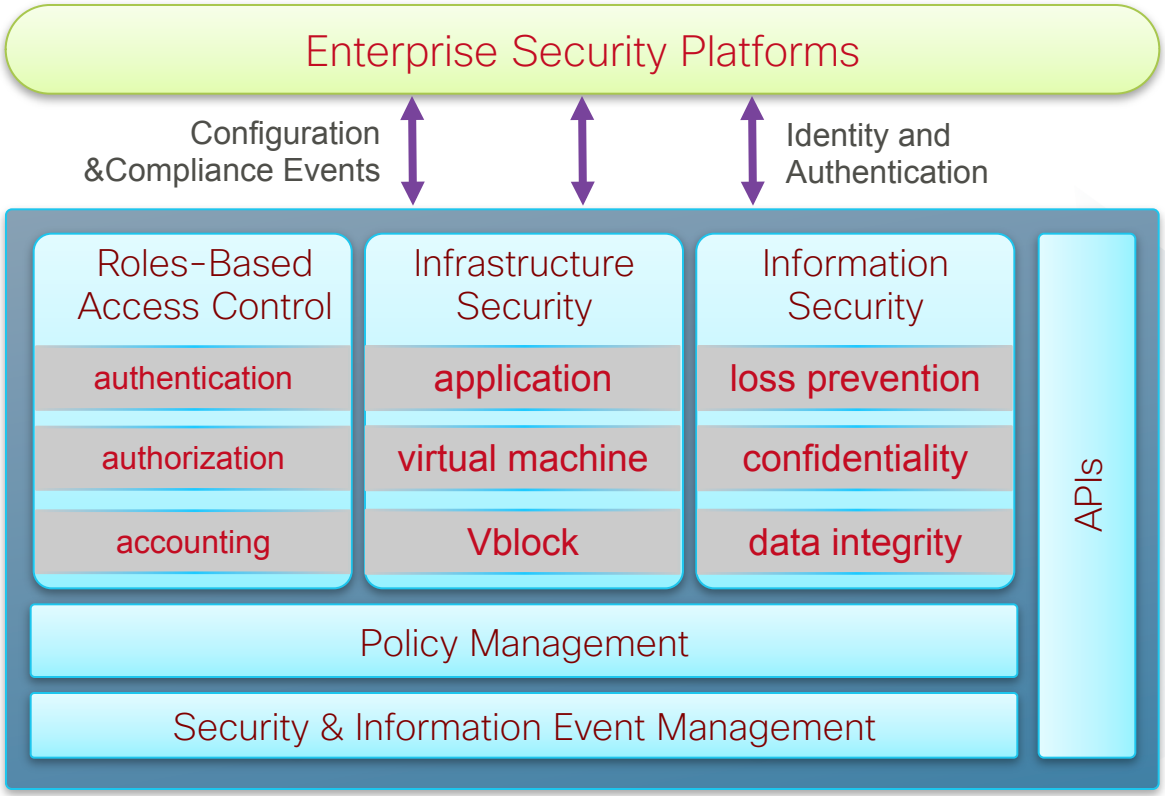

- Integrates with existing security tools and frameworks
- Ensures consistent security between physical and virtual infrastructure
- Deliver better-than-physical security

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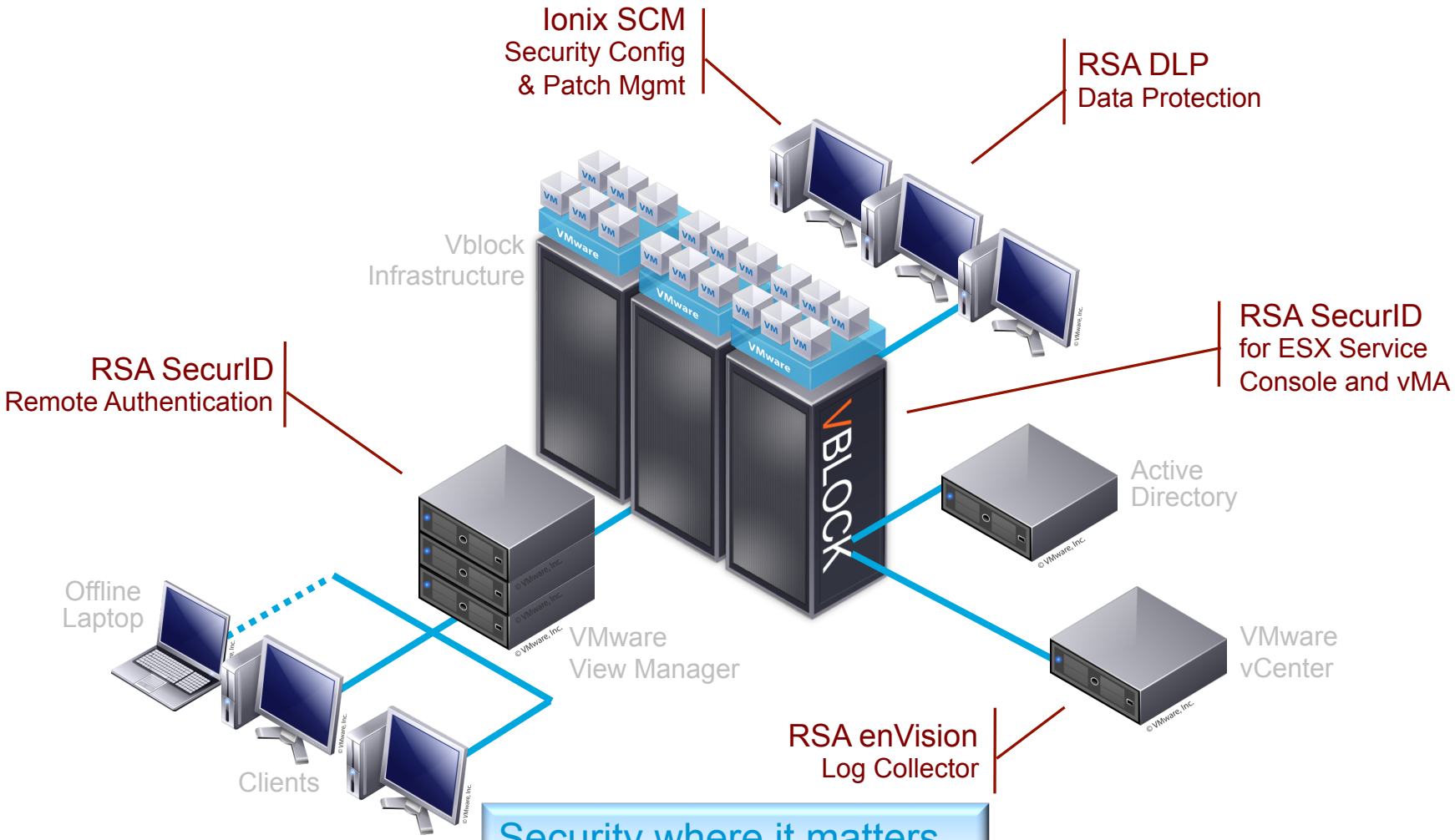

Security where it matters

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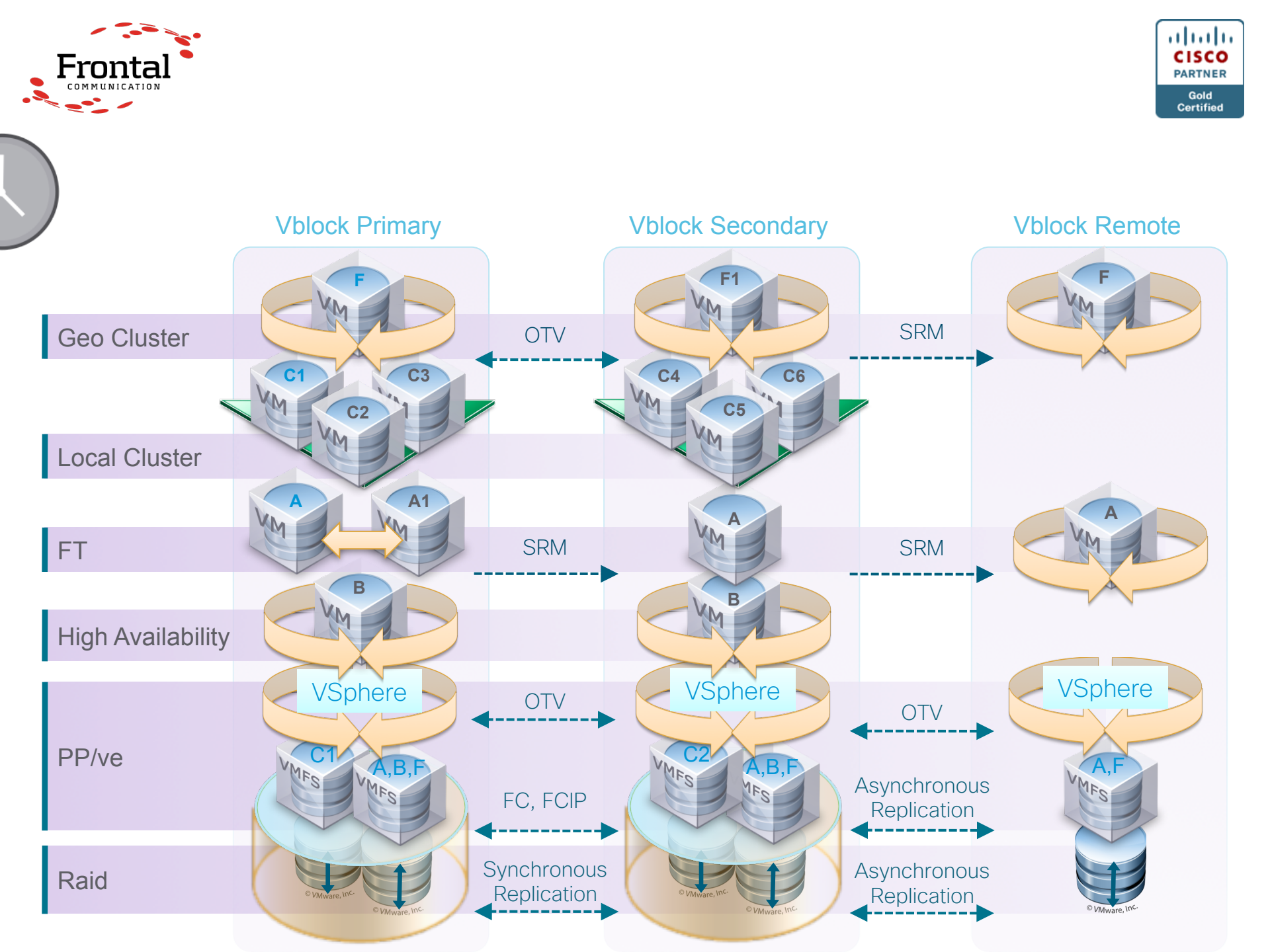
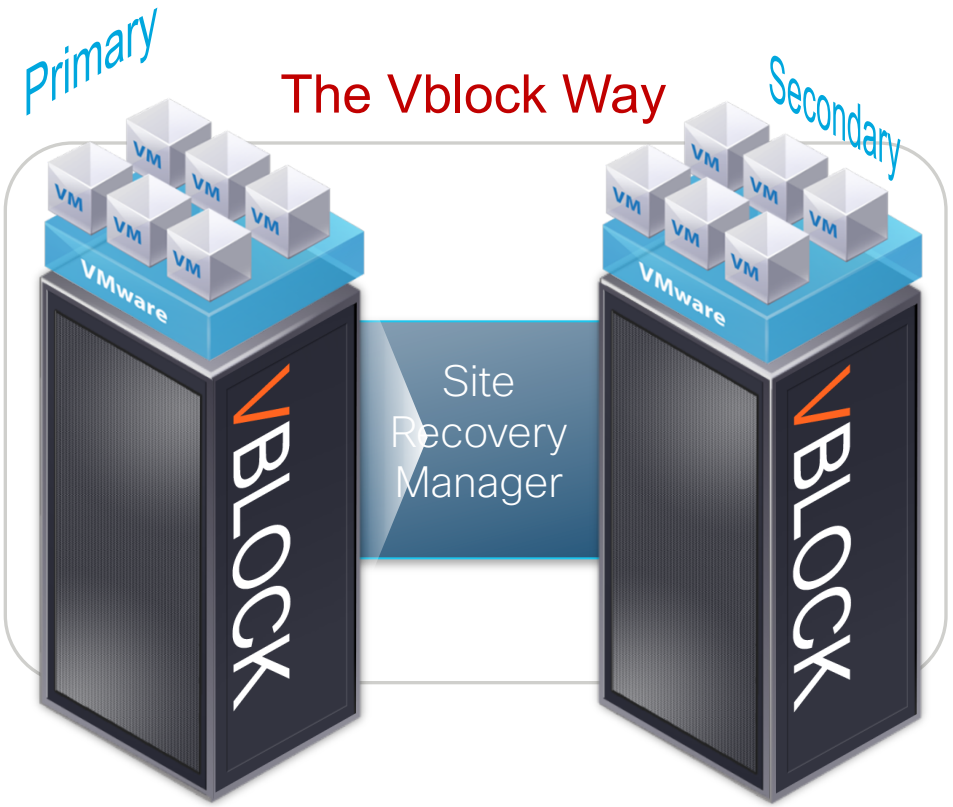

Vblock Primary
Vblock Secondary
Vblock Remote
Geo Cluster
Local Cluster
FT
High Availability
PP/ve
Raid
OTV
SRM
SRM
OTV
OTV
FC, FCIP
Synchronous Replication
Asynchronous Replication
Asynchronous Replication
F
F1
F
C1
C3
C2
C4
C6
C5
A
A1
A
A
B
B
VSphere
VSphere
VSphere
C1
A,B,F
C2
A,B,F
A,F
VMFS
© VMware, Inc.

- VMware Fault Tolerance → zero downtime / zero data loss
- VMware High Availability for unplanned server downtime
- SRM to recover quickly from planned/unplanned site downtime

The Old Way

1. Copy template to DR location
2. Replica of View Server available to rapidly clone
3. Pools configured to automatically grow when users start logging in
4. Replicate user data information

The Vblock Way



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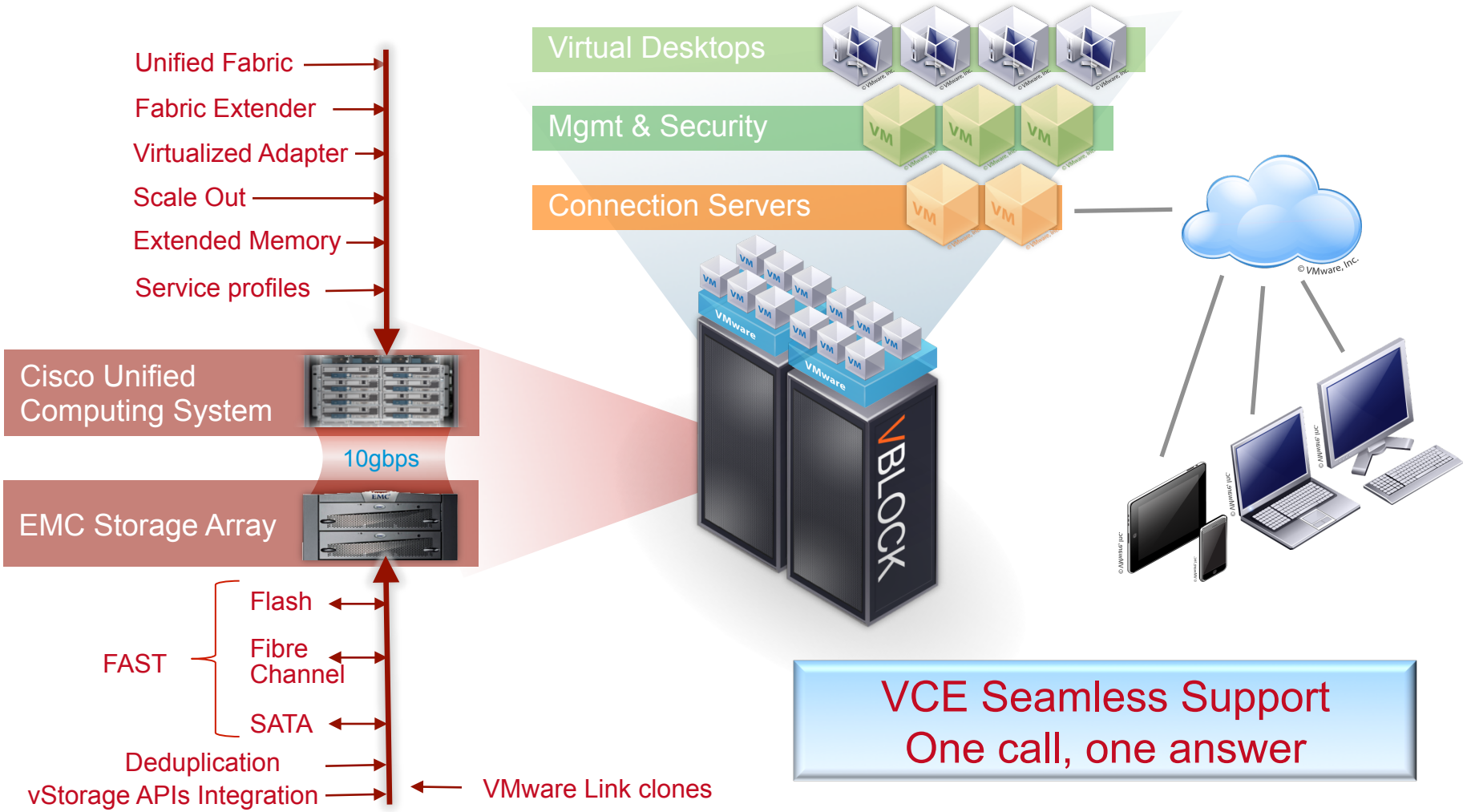

VCE Seamless Support
One call, one answer

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- Visit Frontal Communication stand at Cisco Expo and watch the demo
- Contact Frontal Communication for an optimum solution

Your Perfect VDI Solution

Integrated best of breed technology & support

Factory ready Vblock infrastructure

- Highly scalable options
- Fully optimized for VDI deployments
- Support for thousands of users on a single Vblock

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Cornel Popescu
Team Leader IT Systems Solutions

Cristian Ionescu
Team Leader Netcom Solutions

FRONTAL COMMUNICATION
36 I G Duca Street, B1 building
021 305 4200
mailbox@frontalcommunication.ro
www.frontalcommunication.ro

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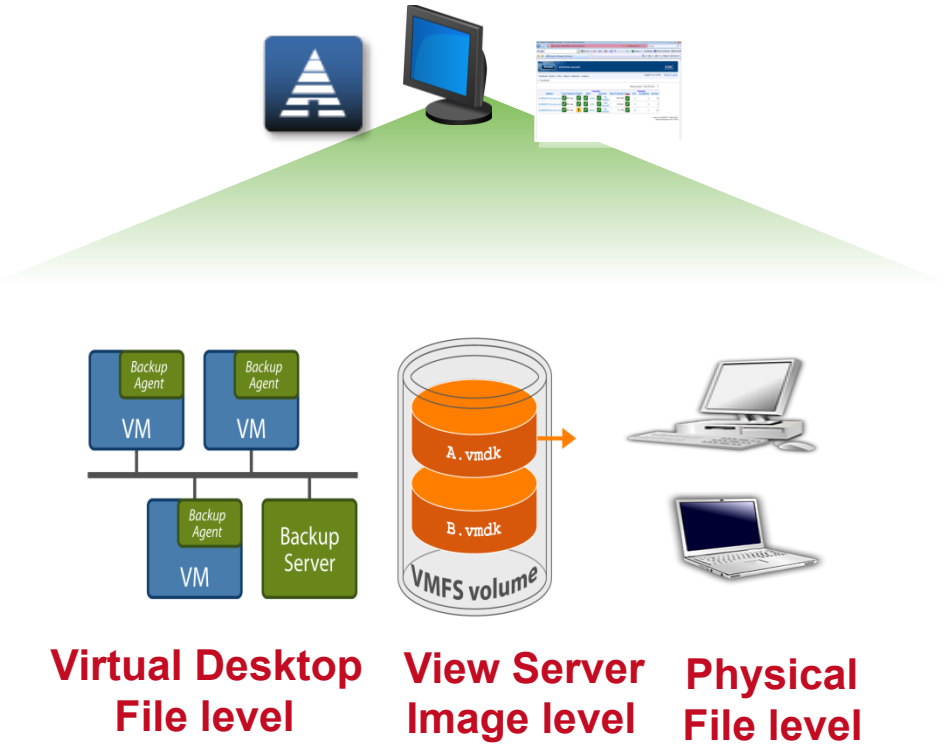
- Unified backup approach for both physical and virtual environments
- Universal support for file and image level backup
- Transparent backups for end users
  - Move up to 99% less data
- Self service end user restores
  - Windows and MAC



Avamar delivers up to 90% faster VMware backups and 50% or greater server consolidation

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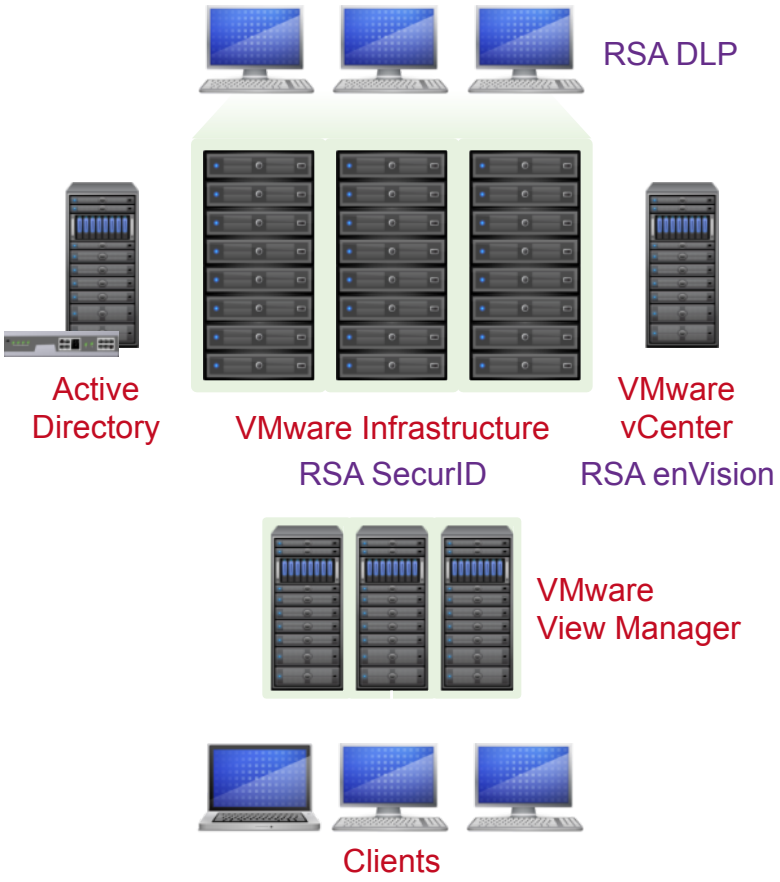
Secure access, protect sensitive data and simplify compliance



- Identify and protect sensitive information reducing data breaches
- Secure access to end user and administrative functions
- Monitor and analyze real time security events across the data center to meet security and compliance challenges
- Leverage automation to ensure patch management and environment configuration supports security policies

RSA

Data Loss Prevention Suite
SecurID
enVision

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