Cisco Unified Computing System (UCS) Unified Management

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Legacy Systems Cannot Respond to Changing Business Workloads
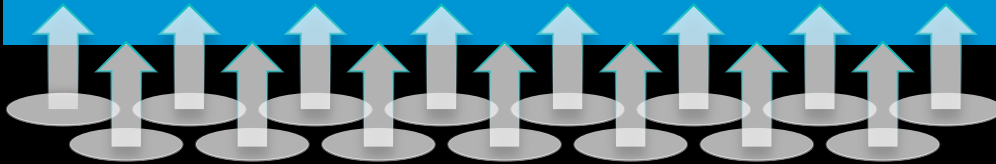
Virtual
Automated and Dynamic

Physical
Manual and Static

Virtual Resource Pools

Virtualization and Automation Tools

Physical/Virtual Frontier

Hundreds of Management Points

Fixed Infrastructure

Accidental Architecture

- Technology silos
- Difficult integration
- Labor-intensive
- Costly to integrate, maintain, upgrade, scale, secure

Why is the UCS System Different?
Fewer Physical Components – Fully Integrated

UCS Manager
Service Profiles
Automation Friendly

UCS Fabric Interconnect
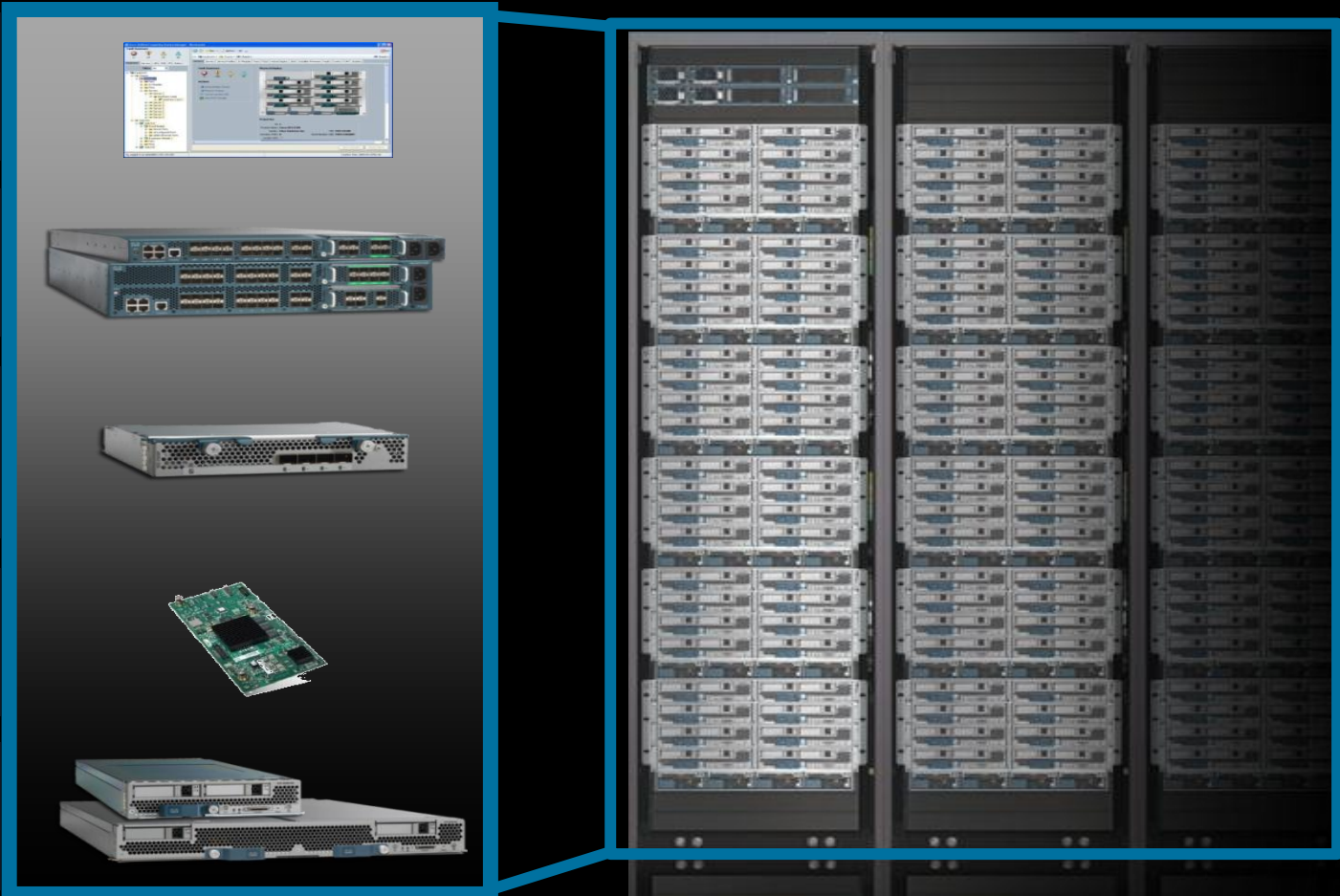10GE Unified Fabric switch

UCS Fabric Extender
Remote line card
Two per chassis

UCS Virtual Interface Adapter
Creating NICs & HBAs in SW

UCS Blade and Rack Servers
x86 industry standard
Patented extended memory

Cisco UCS Innovations

| **Unified Fabric and Fabric Extenders**	• Simplify I/O infrastructure and management • Reduce support infrastructure up to 50%: NICs, HBAs, chassis interconnects, and cabling
Embedded and Unified Management	• Single, highly available point of management • Reduce number of management tools, consoles, and modules with full interoperability using the XML API
Stateless Computing and Service Profiles	• Faster provisioning and reduced spares inventory
Virtual Adapters	• I/O consolidation and increased CPU performance • Network policy control and transparency to the virtual machine level
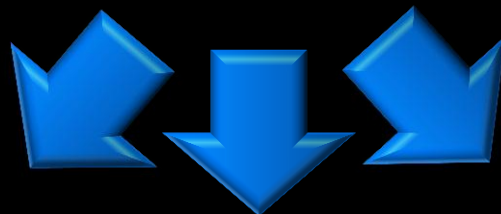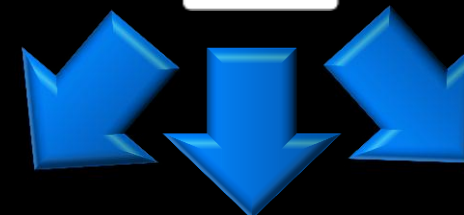
UCS Service Profiles
Automated configuration of bare metal server and its network connectivity

HW Traditionally Managed as Individual Components

| UCS Servers |
| UCS Adapters |
| UCS 2200 Series Fabric Extender |
| UCS 6200 Series Fabric Interconnect |

UCS Service Profile
Unified Device Management

BIOS Version, BIOS Settings, RAID controller settings, UUID, Server Selection (Explicit or Pool)

NIC Firmware version, MAC Addresses, VLANs, QoS Settings, HBA Firmware version, WWNs

Fabric Extender is implicitly configured based on Server Slot and physical connectivity to Fabric Interconnect
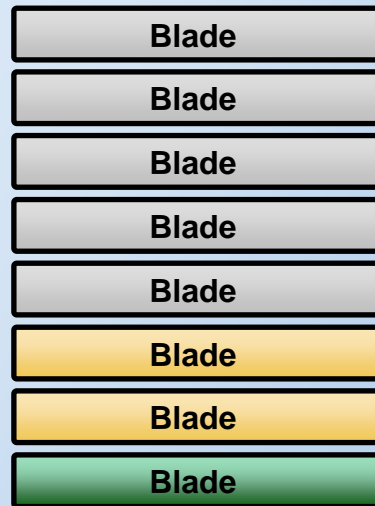
Uplink port configuration, LAN Pinning, SAN Pinning, VLANs, VSANs, DCB Settings
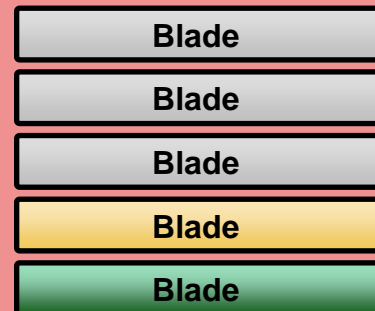
Dynamic Data Center with Service Profiles

Workload	Server Capacity Needed				Server HW HA	Total Servers
	Oct	Nov	Dec	Jan		
Web Servers	5	7	6	5	1 hot spare	8
Oracle RAC	3	3	3	4	1 hot spare	5
XenServer	3	3	4	4	1 hot spare	5

Web Servers

Blade
Blade
Blade
Blade
Blade
Blade
Blade
Blade

Oracle RAC

Blade
Blade
Blade
Blade
Blade

XenServer

Blade
Blade
Blade
Blade
Blade
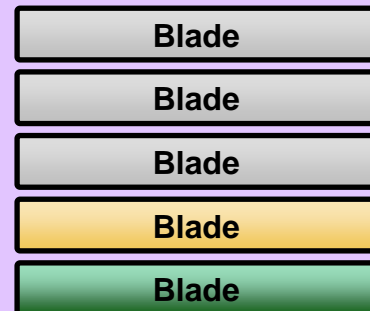
Today's Deployment:

Provisioned for peak capacity

Spare node per workload

**Total Server Deployment
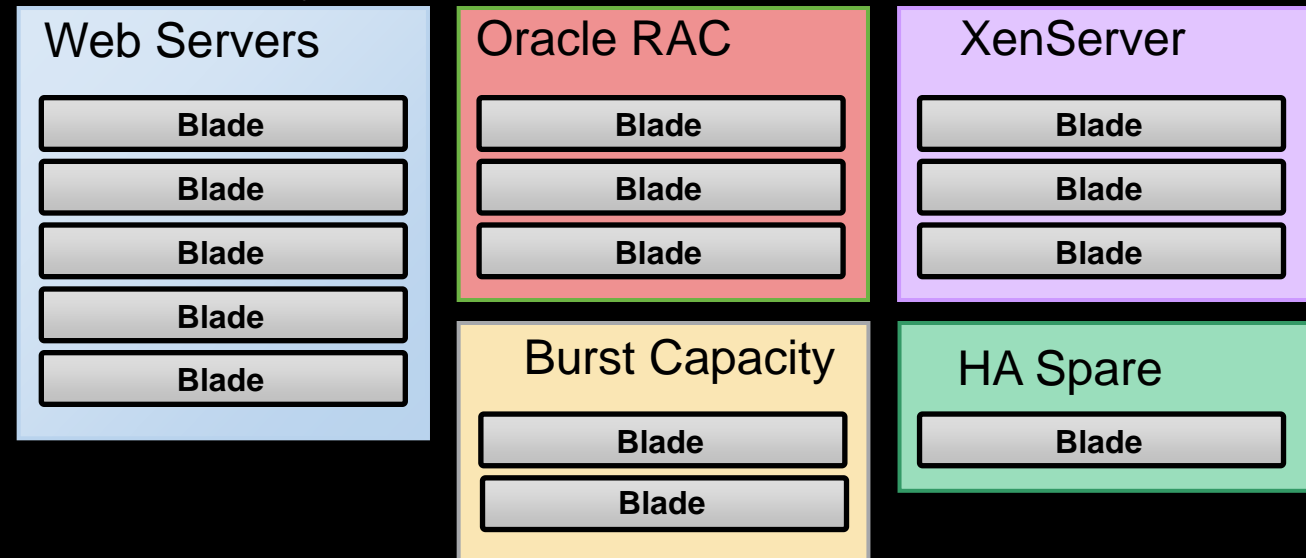18 Servers**

Key Features: Stateless Computing

Old Deployment:

Web Servers	Oracle RAC	XenServer
Blade	Blade	Blade
Blade	Blade	Blade
Blade	Blade	Blade
Blade	Blade	Blade
Blade	Blade	Blade
Blade		
Blade		
Blade		
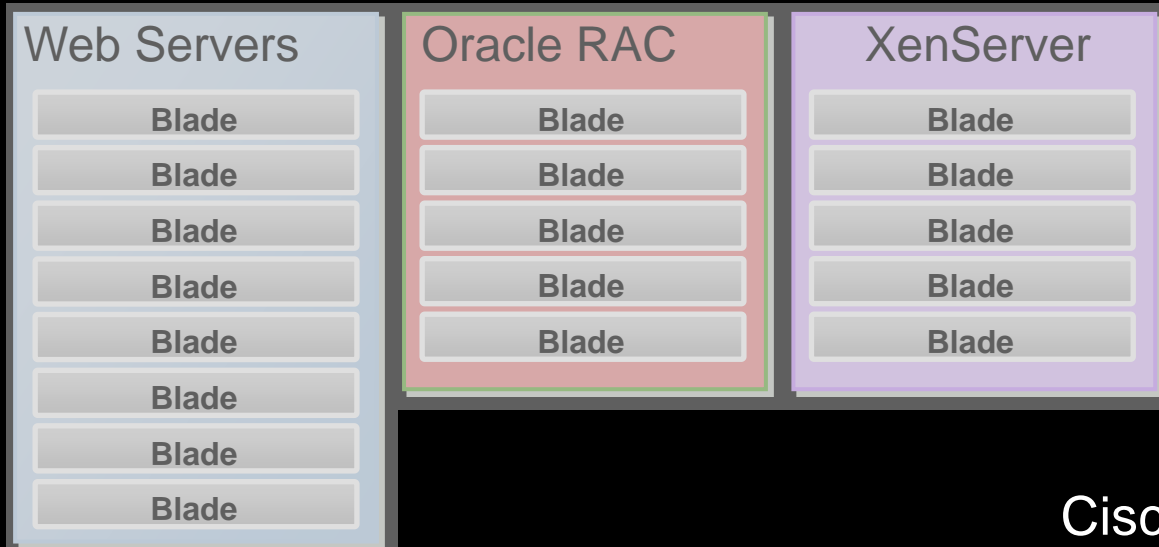
Cisco's Deployment:
- Resources provisioned based on business need
- Still HA with fewer spares

Cisco Deployment:

Web Servers	Oracle RAC	XenServer
Blade	Blade	Blade
Blade	Blade	Blade
Blade	Blade	Blade
Blade		
Blade		

Burst Capacity
- Blade
- Blade

HA Spare
- Blade

**Total Server Deployment
14 Servers
Reduction of 4 Servers
22% CapEx Savings**

Cisco Confidential 9

UCS Central
Unified Management for a Multi UCS Environment

Data Center 1

Data Center 2

Data Center 3

UNIFIED MANAGEMENT

Efficiency of management over large scale, multi
UCS domains

Leverages UCS Manager technology

Delivers global policies, service profiles, ID
pools and templates

Cisco UCS Momentum

- As of Q2FY13, Cisco UCS achieved an annualized run rate of **2 Billion dollars**

- **20,000+** unique UCS customers (February 2013)
  - **> 50% of Fortune 500** companies

- **3,000+ channel partners** actively selling UCS WW
  - **1,500+ UCS specialized** channel partners
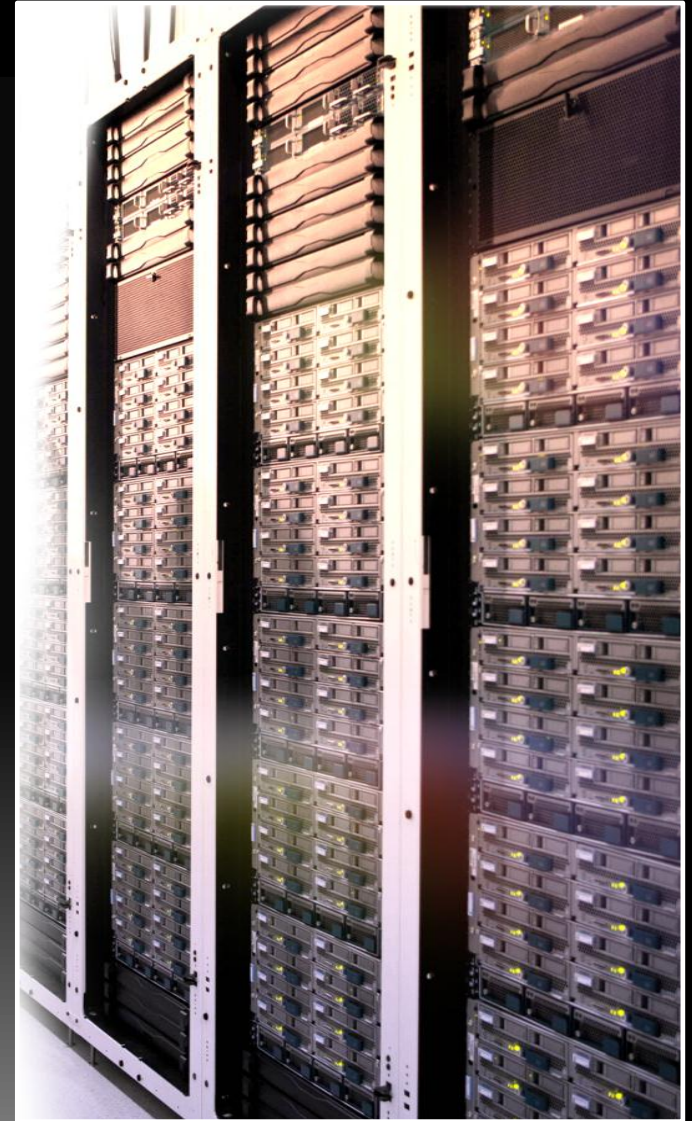
See the Demos and **Enter to Win!**

Cisco at Citrix Synergy Passport Program

Questions?

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- **Demo #1:** Accelerate Citrix XenDesktop with Cisco UCS and Cisco UCS Storage Accelerator
- **Demo #2:** Simplify Citrix XenApp with Cisco UCS and Cisco VM-FEX
- **Demo #3:** Cisco UCS and CloudPlatform
- **Demo #4:** Cisco UCS Manager
- **Demo #5:** Cisco Office in a Box for Branch and Remote Office Deployments
- **Demo #6:** Collaboration-Ready Virtual Workspace on Any Device
- **Demo #7:** Cisco Desktop Virtualization Automation
- **Demo #8:** GPU Enabled Rich Media on Cisco UCS
- **Demo #9:** Secure, Scalable, Optimized Virtual Experience
- Theatre Presentation

Thank You