



Cisco Unified Computing System

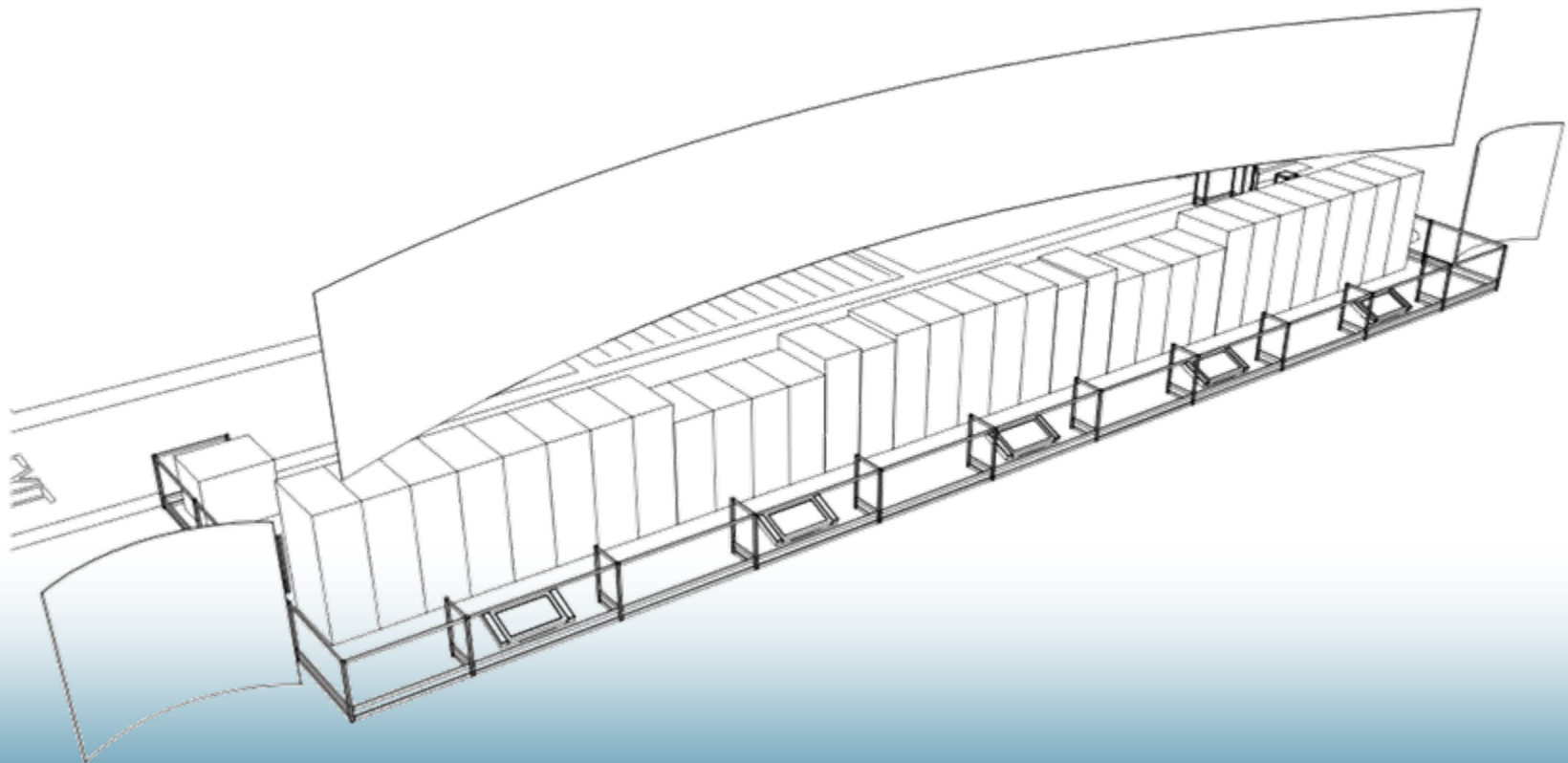
VMWorld 2009 Data
Center Infrastructure
Build



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Unified Computing & Virtualization Practice

VMworld 2009 is powered by a fully operational virtualized data center built upon the CISCO United Computing System and used for demonstrations and training

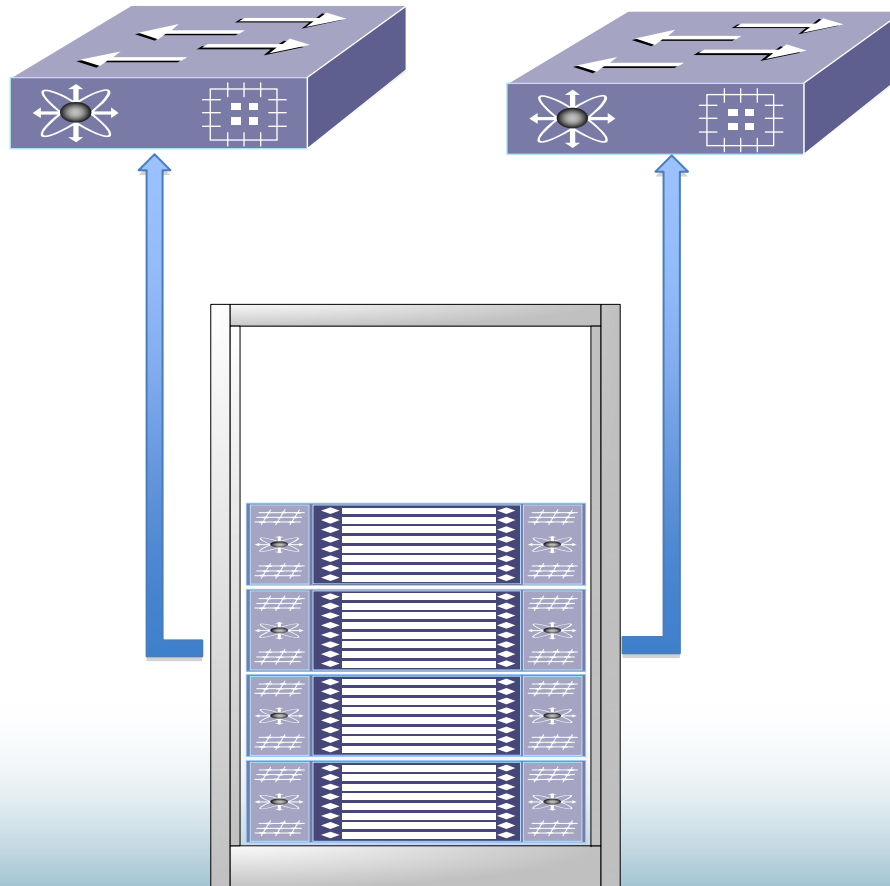


- VMware is showcasing a virtualized data center utilizing the Cisco Unified Computing System
- The virtualized data center is being used to operate 23 different conference lab sessions including 11 self-paced labs and demonstrations
- It is the most compact, densely populated group of Virtual Machines demonstrating the capabilities of the next generation data center built upon Cisco's Unified Computing System
- The entire data center was designed, tested, staged in Fremont, and then moved to Moscone and reconstructed for the conference....all in only 2 months

The CISCO Unified Computing System Platform

- 16 Racks
- 64 Chassis
- 512 Blade Servers (8 blades/chassis)
- 1024 Intel Xeon 5540 Quad Core Processors
- 4096 Cores/ 8192 Logical Cores w/HT
- 24,576 GB (24TB) of Total Memory
- 4GB DDR3 1066MZ Dual Rack Dimms (48GB/Blade)
- 1024 146GB SAS 10K RPM SFF Hot Plug HDD
- 512 CNAs
- 32 Nexus 6120 XP Fabric Interconnects (2/Rack)
- 512 Total Server Uplinks
- Approximately 40K VMs (80VMs/Blade/10VMs/Core)

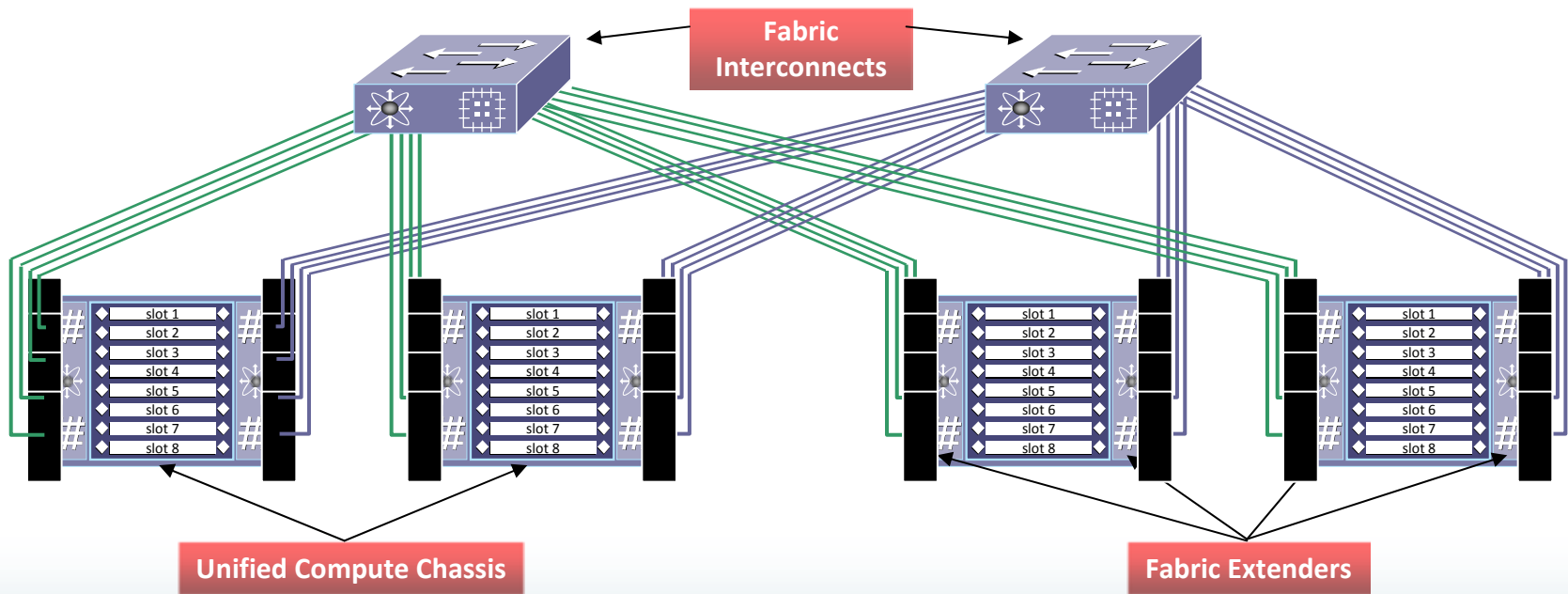
Individual Rack Detail



- Each Rack Contains
- 4 Chassis
 - 2 Fabric Interconnects (20 ports, 8 ports FC)
 - 4 server uplinks from the fabric extenders

- Each Chassis has –
- 8 Blade servers
 - 48GB of memory (12 X 4 GB DIMMS)
 - Converged network adapters
 - 2 redundant fabric interconnect modules
 - 3 Power supplies (N+1)
 - 8 Fans
 - 2 Xeon 5540 Quad Core processor/Blade

Unified Computing Rack Detail



The Building of a Data Center



Equipment Arrival

Initial shipment of
64 Chassis
32 Interconnects
512 Blade Servers



The Building of Data Center Begins

After receipt of several truck loads of CISCO equipment the building Of the DC begins



Racking

Four technicians racked and cabled 64 completely populated chassis in less then 15hrs



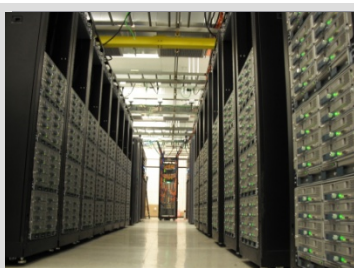
Cabling Complete

That's all there is!



Initial Testing and Configuration

CISCO UCS Specialists performed the Initial configuration and testing



Virtualization

Approximately 40K VMs
80 VMs/Blade
10VMs/Core



Shipment

The entire infrastructure was disassembled and shipped to Moscone



Moscone Setup

Re-construction which consisted of applying power and cabling everything Back together



For more information visit:
www.cisco.com/go/vmworld09



