Moving Your Enterprise to the IT-as-a-Service Model

Flint Brenton – SVP, Cisco, Cloud & Systems Management
Ben Patz – Presidio, Chief Operating Officer
Johan Milbrink – Presidio, Data Center Practice Manager
Agenda

- Delivering IT-as-a-Service
- Cisco Unified Data Center
- Presidio – Best Practices and Case Studies
- Getting Started
The Goal – Delivering IT-as-a-Service

Business Objectives

IT Service Offerings

On-Demand Services

Infrastructure to Deliver IT as a Service
The Journey to IT-as-a-Service

- Consolidate Assets
- Virtualize the Environment
- Standardize Operations
- Automate Service Delivery

Increased IT Operational Excellence (Agility, Efficiency and Simplicity)

Increased Cloud Readiness (Physical – Virtual – Private Cloud – Hybrid Cloud)
Cisco Unified Data Center
The Platform for Delivering IT-as-a-Service

- Highly Scalable, Secure Network Fabric
- Modular Stateless Computing Elements
- Automated Resource Management (Physical and Virtual)
Cisco Unified Fabric
Delivering Architectural Flexibility

Consolidated Infrastructure
Simplified Management
Reduced Cost

Investment Protection
Evolves With Business Geographic Span

Integrated Application Delivery
Seamless VM Networking
VM-aware Security

Consistent Networking Across Physical, Virtual and Cloud
Cisco Unified Fabric
Three years of Innovation and Market Leadership

GARTNER DATA CENTER 10-GIGABIT SWITCHES REVENUE*

- **73.8%**
- **254.6% Y/Y GROWTH**

- Cisco
- HP**
- IBM**
- Juniper
- Brocade
- Others

NX-OS CUSTOMER GROWTH****

- **23K+**
- **15K**
- **10K**
- **5K**

2008 — 2012

**OEM Switches not included
*** Multiple sources including Dell Oro.
**** Created by Cisco based on Cisco data.
Fabric Computing
Cisco Delivers Today and Innovates for the Future

Which vendor would you perceive to be the most competent to deliver on a fabric–based strategy in your enterprise?

- Cisco
- Dell
- Egenera
- IBM
- VMware
- HP
- Don't Know / Not Sure

Source: Gartner, 2011—You can read the full Gartner report here: http://www.gartner.com/technology/media-products/reprints/cisco/210438.html

© 2012 Cisco and/or its affiliates. All rights reserved.
Cisco Unified Computing System
Built from the Ground up for Physical, Virtual and Cloud

Efficient Scaling
Simplified management

Consistent alignment of policy, configuration and workload

Superior IT productivity
Orchestration ready

Convergence
Intelligence
Automation

Fabric-based x86 computing architecture optimized for virtualization and cloud
Cisco UCS Leadership and Momentum

TECHNICAL LEADERSHIP

• Unified Infrastructure: compute, networking, virtualization, storage access, management software
• Management Automation: UCS Manager and Service Profiles across blade and rack servers
• Ideal for enterprise applications: proven for both bare metal and virtualized enterprise deployments
• Design flexibility: scale across systems and across data centers
• Ideal Cloud Infrastructure: UCS is winning the cloud build-out (72% of top 50 cloud providers)

MARKET MOMENTUM

• UCS has $1.3 billion annualized revenue run rate (CQ4-2011)
• Over 11,000 unique UCS customers, and nearly half of all Fortune 500 customers have invested in UCS
• 2,000 UCS Channel Partners; 838 achieved Data Center Specialization Certification
• 44 ISVs and counting writing to Cisco UCS API
• 63 World Record Performance Benchmarks to date
2012 Gartner Magic Quadrant for Blade Servers

Figure 1: Magic Quadrant for Blade Servers

This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request from http://www.gartner.com/reprints/cisco-datacenter?id=1-19KYF6B&ct=120306&st=sb

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

Source: Gartner (March 2012)
Legacy Management
Slow, Complex, Brittle, Expensive

Cloud Management
Fast, Simple, Flexible, Cost-Effective

Legacy IT

IT-as-a-Service
- Measured Service
- Rapid Elasticity
- On-Demand Self Service
- Broad Network Access
- Resource Pooling

Compute
Network
Storage
Unified Management for Cloud

IT-as-a-Service Requires a New Management Approach

Self-Service Portal and Orchestration

Infrastructure Resource Mgmt

Policy-Based Compute

Policy-Based Network

On-Demand, Self-Service Provisioning of IT Resources

Policy-Based, Model-Driven Approach Reduces TCO

Easiest to Use and Deploy, Delivers Faster Time to Value

Optimized for Cisco Architectures, Complements Existing IT Systems and Management Tools

Automation

Intelligence

Flexibility

Compute

Network

Storage
Unified Management for Cloud
Automation and Orchestration Designed for IT-as-a-Service

Cisco Intelligent Automation for Cloud

Cisco Unified Computing System Manager
Cisco Network Services Manager

Unified Management Partner Ecosystem
Welcome to CITEIS VDC

Your Virtual Data Center

Cisco now offers the option to create your own Virtual Data Center. These services allow you to acquire the virtual resources you need for as long as you need them, with an abundance of supporting services, including additional network and storage capacity.

Sign up and manage a VDC

- Sign up for resources in your own virtual data center.
- Register yourself or your group for VDC services.
- Add units
- Add network capacity
- Add storage

Order new resources

- Get new vApps, VMs, and related services.

Manage your resources

- Extend leases, configure, delete, restore VMs...

CITEIS VDC Knowledge Center

Virtual Data Center Services

- Pre-paid resource pools
- Virtual resources reserved and guaranteed
- Tenants allocate and manage resources based on their specific needs.
- Minimum one quarter subscription commitment required

TIP: Scroll down this page to see a list of the virtual resources you already own. Click on one to see a list of services you can order for that resource.
Cisco Intelligent Automation for Cloud
Orchestration-Based Automation

Cisco Process Orchestrator Example:
Provision virtual data center (VDC)
Cisco Intelligent Automation for Cloud
Unified Management – Automated Self-Service Provisioning

FROM 8 WEEKS TO 15 MINUTES

Architect | Design | Where Can We Put It? | Procure | Install Automated Self-Service | Configure | Secure | Is It Ready?

Manual

Capacity On-Demand | Policy-Based Provisioning | Built-In Governance

© 2012 Cisco and/or its affiliates. All rights reserved.
Presidio Overview

- Professional & Managed Service Provider for Advanced IT Solutions
- Local presence: 50+ offices across the United States
- Global scale: 5,000+ clients in U.S., Europe & Asia
- 2,000+ employees – ~50% are highly certified consulting engineers
- Enabling Cloud/IT transformations across multiple industries
- Deep, strategic partnerships with leading innovators in the IT industry
- Privately held company - double-digit annual growth rates for 15+ years
- Passion for driving client results: Best in class satisfaction & Net Promoter Score
### Presidio and Cisco

**Cisco Cloud Builder**

- Cisco Master ATP Partner: Managed Services, Unified Communications, Security & TelePresence Video

2nd largest Partner in North America

- Unique collaborative relationship – co-developing innovative solutions

- Over 30 Cisco specific specializations and authorizations

- Over 2,200 Cisco technical certifications including 150+ CCIEs
What Our Customers Are Telling Us…

Growth

“I need help with moving my workloads to public cloud and to private cloud…”

“… need a solution that enables us to respond to customers within hours instead of days”

Answers

“I need help with moving my workloads to public cloud and to private cloud…”

“At the end of the day, I just want to simply, confidently say ‘yes’ to my business.”

Risk
Cloud/IT Transformation Is A Journey

We Help Our Customers Along
Best Practices / Recommendations For Cloud Computing Initiatives

• Build executive support, appoint “head of cloud”
• Focus on your service catalog and self-service portal
  – Assess your user, workloads, infrastructure, security environment
  – Standardize services, automate provisioning
• Adopt a phased approach
  – Crawl, walk, run (test, pilot, production)
  – Establish objectives and a roadmap for execution
  – Identify your initial target(s) (test/dev, apps, use case, etc.)
• Ensure selected cloud platform core is extensible
  – Enterprise-class, no forklifts, roadmap, multiple service and deployment models
Cloud Implementation Roadmap Example

- Virtualized Resources
- Compute Network Storage
- Automated Provisioning
- Basic Service Catalog, On-demand Self-service Storefront
- Integration w/ 3rd Party Systems, Roll out Additional Services
- Integration w/ Metering and Chargeback
- Advanced Use Cases: PaaS, Hybrid Cloud
Case Study – Company A

• Integrated Environmental Solutions Company
  – National, 45,000 employees

• Cloud Initiative Objectives:
  – Accelerate infrastructure provisioning
  – Reduce operational costs
  – Support innovation
  – Optimize and automate existing business processes

• Results
  – Reduced infrastructure provisioning times from 60 days to approximately 20 minutes
  – Reduced development costs by increasing efficiency and eliminating manual provisioning tasks
  – Enhanced security, infrastructure reliability, and service quality
Case Study – Company A’s Phased Approach

**Phase 1**
- 30 days
- ✔ Install Cisco Process Orchestrator
- ✔ Install Cisco Cloud Portal
- ✔ Install Cisco Automation Packs
- ✔ MS Active Directory Integration for pre-fills
- ✔ Cisco Cloud Portal basic branding with logos and corporate colors
- ✔ Basic dynamic IP Address Management - management of pre-allocated range
- ✔ Provisioning of Virtual Machines (VMs) from templates
- ✔ De-provisioning a VM

**Phase 2**
- 45 days
- ✔ Cisco Process Orchestrator to vCloud Director Integration
- ✔ Add vCPU, vRAM, and Storage
- ✔ Upload an OVF image
- ✔ Lease Management
- ✔ Threshold Management for CPU, Memory, and Storage
- ✔ Dynamic Error and Exception handling
- ✔ MS Active Directory Integration (Authentication)
- ✔ Power Cycle and Snapshot Operations
- ✔ Configure End User Portal as the main self-service interface

**Phase 3**
- TBD
- ✔ Additional capabilities, for example:
  - Virtual Datacenter (VDC)
  - Provisioning of VM’s through vApps from templates
  - Role differentiation in portal
  - 3rd party IP address management
- ✔ Extend capability to Platform as a Service (PaaS)
- ✔ Extend to hybrid cloud

Timeline:
- T0: June 2012
- T30: Demo Release 1
- T75: Production Release 1
- TBD: TBD
Case Study – Company B

• Large Financial Institution
  – Global, 3.5M members

• Cloud Initiative Objectives:
  – New greenfield infrastructure implementation (HW & SW)
  – Flexible, scalable, modular architecture
  – Unified fabric
  – Infrastructure as a Service (IaaS)

• Results
  – High performing and agile architecture through shared infrastructure (10G networking, virtual compute and storage)
  – On-demand provisioning with standardized options
  – Faster, simpler and more flexible and cost-effective IT
Companies A & B Have Started Their Journey

- **Capabilities**
- **Time**
- **Virtualized Resources**
- **Compute**
- **Network**
- **Storage**
- **Automated Provisioning**
- **Basic Service Catalog, On-demand Self-service Storefront**
- **Integration w/ 3rd Party Systems, Roll out Additional Services**
- **TBD**

Diagram showing the progression of capabilities for Companies A & B over time.
Cisco Intelligent Automation for Cloud
Starter Edition
Introducing Cisco Intelligent Automation for Cloud Starter Edition

- Easy-to-Use End-Self-Service and Administrator Web Portal
- Order VMs and Physical Servers with Automated Provisioning

A Starting Point for your Cloud Journey with Cisco UCS
Cisco Intelligent Automation for Cloud

Starter Edition – Features & Benefits

- Pre-Built Portal Content and Workflows to Accelerate Time to Cloud
- Deployment of Compute-as-a-Service on Cisco UCS to Improve Agility
- Self-Service Provisioning and Automation for both Virtual and Physical
- Control Over Resources and Consumption with Lifecycle Management
- Ability to Grow Deployment and Expand to New Use Cases with Upgrade Path
Thank you.