iliilii cisco

Cisco Intelligent Automation for Cloud

EBC Deck

Rising Interest in Private Cloud Computing



Gartner: Private Cloud Computing Plans From Conference Polls, April 2010

Business Drivers for Private Cloud

Long Provisioning Times for New Services	 Lack of agility High cost of IT staff Business-it dissonance 	
High Capital Costs Due to Provisioning for Peak Loads	 Low capacity utilization High operating costs Overcrowding of datacenter 	Lack of IT-Business
Pressure to Move Towards Proactive SLA Management	 Labor-intensive, manual processes for service management 	Alignment
Lack of Centralized Control and Governance	 High error rates due to disconnected processes Infrastructure sprawl 	

Delivering Cloud Services Needs Automation



Elements of Private Cloud Computing

Lifecycle Management

- Self-Service Interface: Provides ability for users to order and track metered services
- Service Delivery Automation: Automates provisioning and meters usage of services
- Resource Management:
 Resources are provisioned and
 managed as per service needs
- Operational Process
 Automation:

Automates operational processes such as user management, capacity management, service level management, service desk integration, alerting...



Elements of Private Cloud Computing

Self-Service Interface

Provides ability for users to order and track metered services

Service Delivery Automation

Automates provisioning and meters usage of services

Operational Process Automation

Automates operational processes such as user management, capacity management, performance management, alerting, etc. to support services

Resource Management

Pooled resources are provisioned and managed as per service needs

Lifecycle Management

Finding the Right Solution for Your Stage



Cloud Maturity Model (James Urquhart)

© 2010 Cisco and/or its affiliates. All rights reserved.

Cisco Intelligent Automation Cloud Offers

Utility Non-Technical User Orders a "SQL Server" and Everything Is Provisioned

Compute Automation

Technical User Manages IT Processes Across Compute Tools

Cisco Intelligent Automation for **Cloud**

Cisco Intelligent Automation for **Compute**

Supports heterogeneous infrastructure (server, network, storage)—both virtual and physical

Set of sample automation packs

Full Infrastructure as a Service (IaaS) stack	Global orchestration across compute resources: server/ virtual server, OS and application software,
Order to global orchestration to infrastructure provisioning	Services engagement for integration for CMDB, ticketing, monitoring, etc.
Orchestration of compute, network and storage provisioning and deployment, OS and software provisioning	
Services engagement for setting up automation workflows, and integration for metering, chargeback, CMDB, ticketing, monitoring, etc.	

Cisco Intelligent Automation for Cloud



Cisco Intelligent Automation for Compute



Solution Highlights

Intelligent Automation for Cloud

Service catalog and ordering portal provides 1-stop shopping for infrastructure as a service

Single point orchestration of provisioning across all required components compute, virtualization, network and storage

Software provisioning including OS and application provisioning Open Architecture provides for integration with existing CMDB and ITIL investments and tools

Intelligent Automation for Compute

Automation of ongoing operations

lain Menu	MAC-Independent Provisioning		MAC-Specific F	rovisioning	MAC-Specific Imaging		leip l	ogou
			MAC-Specific F	Provisioning Roles				
Add MAC-Sp	ecific Role							
Nickname		Host Name	IP Address	MAC Address	Role Template	Provisioning	Edit/Dele	te/Co
UCSDev4		UCSDev4	192.168.0.204	00:11:09:2e:b4:05	Red Hat Enterprise Linux 5.5 x86_64	Next Boot		
UCSQA2		UCSQA2	192.168.0.212	00: <mark>11:09:62:9c:4</mark> 9	Windows Server 2008 R2 Standard	Live Ubuntu		
UCSQA5		UCSQA5	192.168.0.215	00:11:09:62:b7:15	Ubuntu 10.04 LTS x86_64 Server	Ignore		
UCSQA6		UCSQA6	192.168.0.216	00:15:c5:5e:ba:b6	ESX 4.1.0	Next Boot		
Add MAC-Sp		Role (operating		applications, netwo	rk and other parameters)			
to be installe Click on 🗋 t	Add MAC-Specific Role" button to create a d onto a physical system or virtual machine utton to see profile details and to edit the F Role, click on X button.	e based on its M	IAC address.					

Use Case: Application Dev/Test Complex, Time-Consuming, Expensive Provisioning Process



Service Delivery with Cisco Intelligent Automation for Cloud



Provisioning Time Benefits



© 2010 Cisco and/or its affiliates. All rights reserved.

Improve Availability Through Automation

More than 80% of all mission-critical IT service outages are due to people and process errors and failures, with a significant number of those due to a lack of coordination among change, release and configuration management.



Sample operations automated through workflows

- Deployment of Service Profiles
- Change management
- Installation of ESX
- Add infrastructure
- De-provision infrastructure
- Change a resource on a server
- Capacity Check and automate capacity availability
- Evacuate a blade for maintenance
- Routine maintenance

Our Solution at Work...

Tracking for Pay-Per-Use Review Offerings, **Define and Publish** 1.10.20.00101 **Get Quotes Standard Options** and the Chargeback Architecture & IT or Showback -----Self-Service Approvals & Controls Report Orchestrate Consumption Delivery Application Server New Windows Development Server (Sta . F Server Database Server Provisioning TEO SCOM 2007 Adapte Nal executor the Nale Inclusion Observation. The process is based on the SAP active Repeating Canoeled lipitates' located 🛱 Eng P New Windows D Request Review - New Windows D Network Storage New Wind Server O New Wind Server Se Lifecycle Process Coordination and Security Management Ops **Delivery Automation** DR

Service Capabilities



© 2010 Cisco and/or its affiliates. All rights reserved.

Cisco Public 18