



Tools for Building and Managing Your Cloud Service Delivery Platform

Peter Tuton

IBM Service Management and Cloud Technical Specialist

Pulse2012

Meet the Experts. Optimise your infrastructure.

May 31 – June 1

Sheraton on the Park Hotel, Sydney

Agenda

- Cloud Computing Reference Architecture – brief overview
- Tools that support the fundamental building blocks
- Evolution of current offerings

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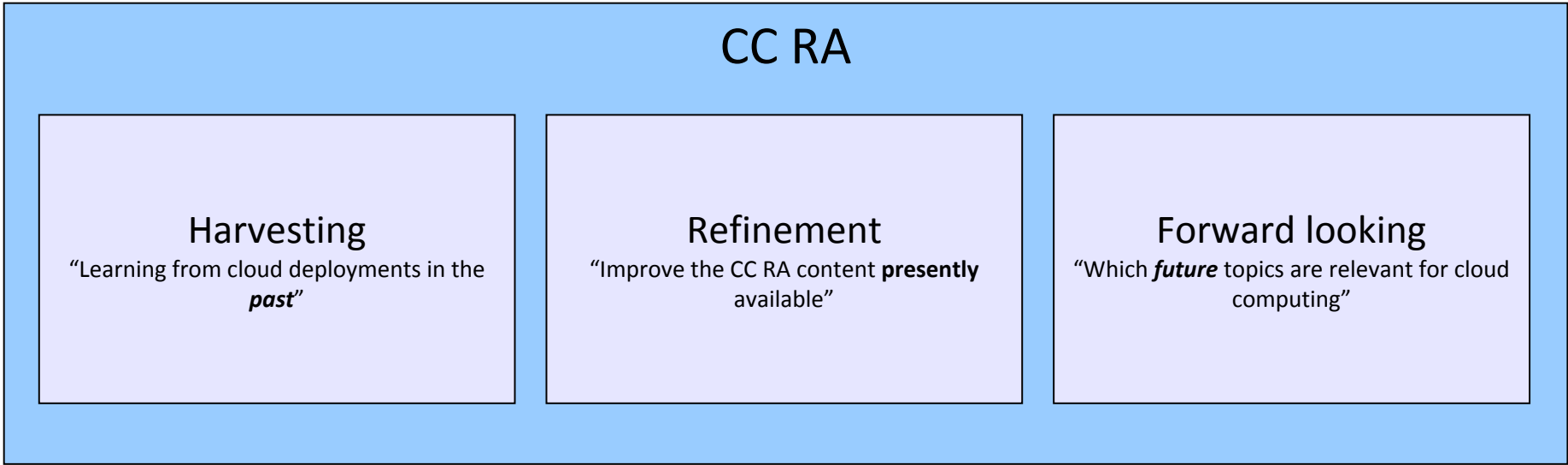
Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

Prices are suggested U.S. list prices and are subject to change without notice. Starting price may not include a hard drive, operating system or other features. Contact your IBM representative or Business Partner for the most current pricing in your geography.

Photographs shown may be engineering prototypes. Changes may be incorporated in production models.



The CCRA aggregates past and present experience and future requirements



IBM uses architectural principles as guidance

1. “Efficiency Principle”: Design for Cloud-Scale Efficiencies

→ Overarching objective of Driving down costs (¢/ServiceInstanceHour) and time-to-response by orders of magnitude

2. “Lightweight Principle”: Support Lean Service Management

→ Radical exploitation of high degree of standardization in cloud environments to reduce management costs, based on an Eliminate-Standardize-Optimize approach

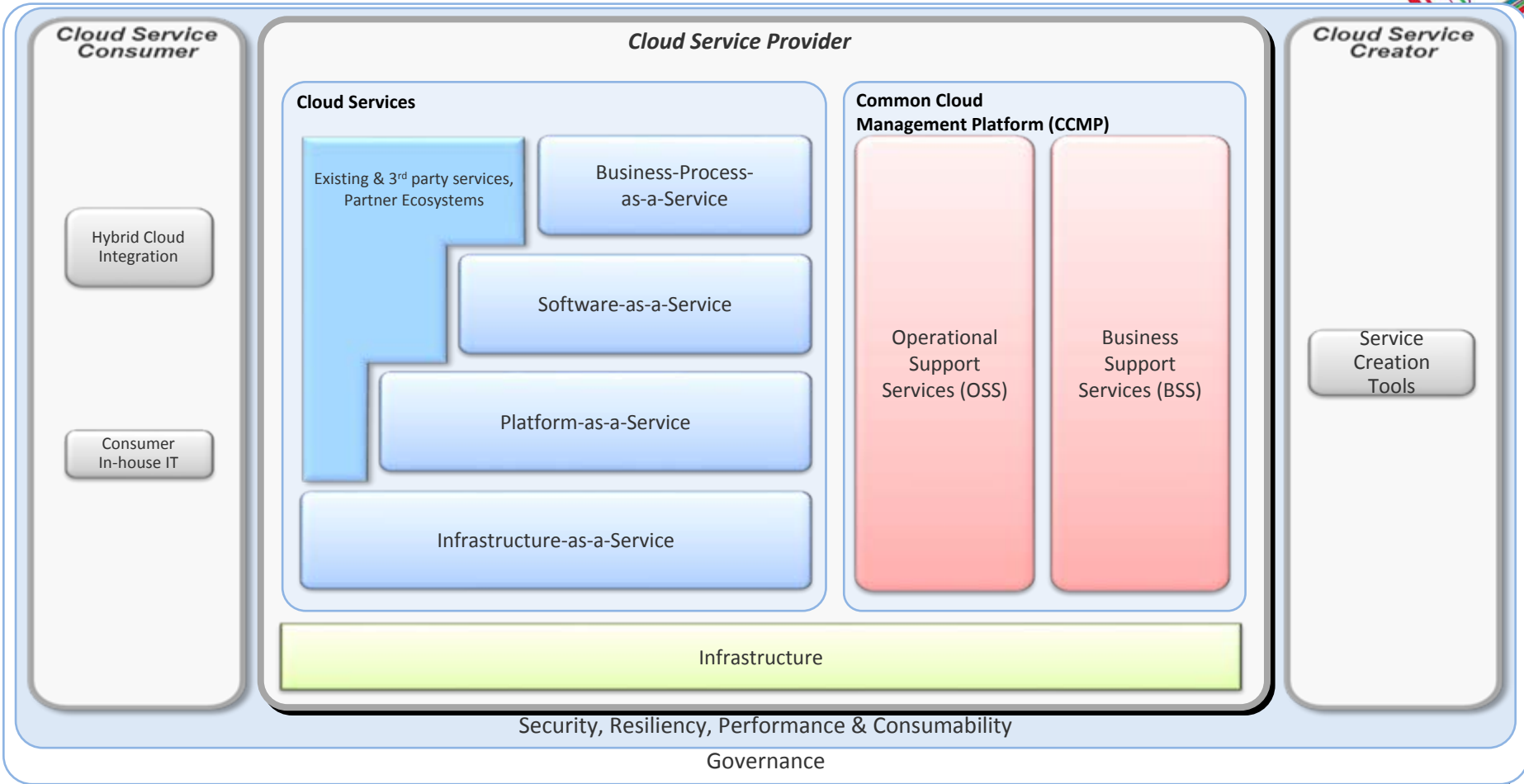
3. “Economies-of-scale Principle”: Identify and Leverage Commonalities

→ Maximum sharing of mgmt components, infrastructure & infrastructure / platform cloud services across cloud services to reduce CapEx & OpEx and time-to-market

4. “Genericity Principle”: Define and Manage Cloud Services generically along their Lifecycle

→ Support I/P/S/BPaaS cloud services in a generic fashion, with a single management platform





Cloud Service Consumer

Hybrid Cloud Integration

Consumer In-house IT

Cloud Service Provider

Cloud Services

Existing & 3rd party services, Partner Ecosystems

BPaaS

SaaS

PaaS

IaaS

Common Cloud Management Platform



Service Manager



Business Manager

OSS – Operational Support Services

Service Delivery Catalog

Service Automation Management

Service Request Management

Change & Configuration Management

Image Lifecycle Management

Provisioning

Incident & Problem Management

IT Service Level Management

Monitoring & Event Management

IT Asset & License Management

Capacity & Performance Management

Platform & Virtualisation Management

BSS – Business Support Services

Customer Account Management

Service Offering Catalog

Service Offering Management

Contracts & Agreement Management

Service Request Management

Order Management

Subscription Management

Pricing

Entitlement Management

Metering

Rating

Billing

Clearing & Settlement

Accounts Payable

Accounts Receivable

Service Consumer Portal & API

Service Development Portal & API

Service Provider Portal & API



Deployment Architect



Transition Manager



Operations Manager



Security & Risk Manager



Customer Care

Infrastructure

Security, Resiliency, Performance & Consumability

Governance

Cloud Service Creator

Service Creation Tools

Using the CCRA will save you time and money as well as reduce your implementation risk

In short, the IBM CC RA can make your cloud experience successful by:

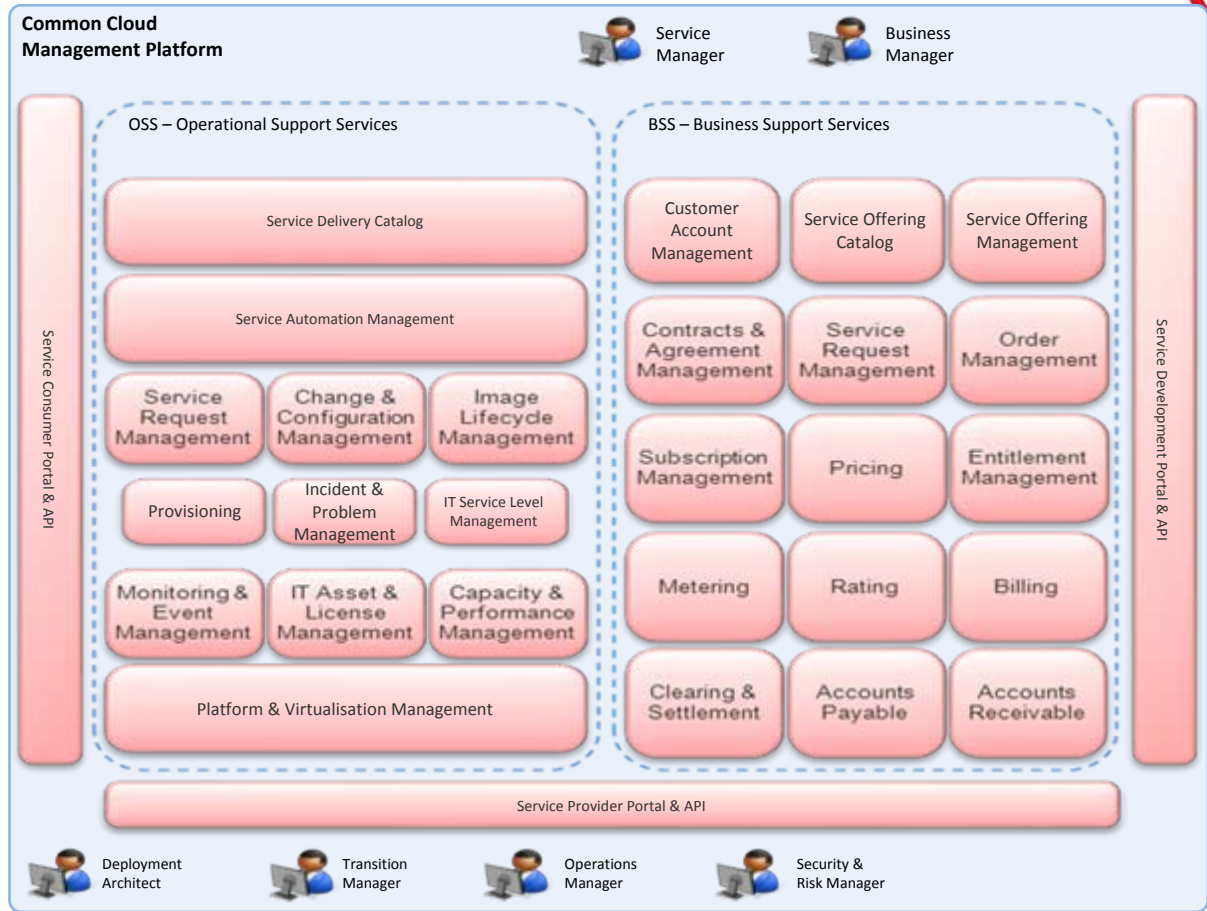
- ★ Improving time-to-value and reducing errors during the implementation
- ★ Providing fast, on-demand access to the functionality your customers are requesting
- ★ Facilitating functional gap analysis
- ★ Enabling cross-charging for IT services
- ★ Creating a highly efficient service delivery and service support infrastructure
- ★ Ensuring repeatability and integration across private, public, and hybrid cloud environments
- ★ Benefiting from open standards



CCMP defines all management functions commonly needed for the automated delivery & management of any cloud service

OSS: Responsible for managing the runtime components of cloud services

BSS: Responsible for all business / finance related aspects of cloud services



Our tools are designed to be mapped to the CCRA

- Build a foundation with
 - IBM SmartCloud Provisioning, including Virtual Image Library and Image Construction and Composition Tool
 - IBM SmartCloud Monitoring
- Leverage advanced technology with
 - IBM Service Delivery Manager
- Complete the OSS functions with
 - IBM SmartCloud Control Desk

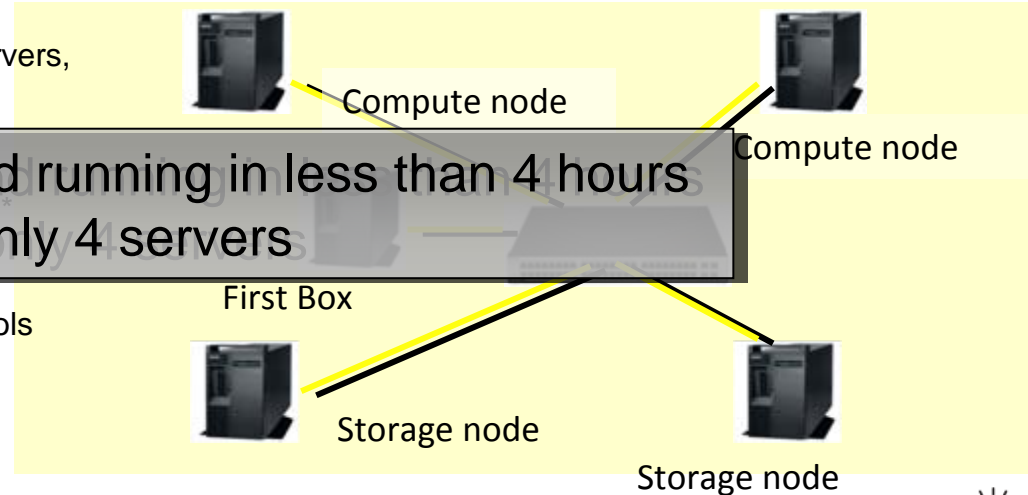


Lay the foundation with IBM SmartCloud Provisioning

IBM SmartCloud Provisioning

- Quickly stand up a cloud
 - Start small and scale based on need
 - No additional pre-reqs such as databases, app servers, messaging middleware
 - Freedom of choice for hypervisors
 - Avoid expensive hardware
 - VMWare ESX, KVM, Xen, Hyper-V, PowerVM
- Highly cost effective solution
 - Requires no additional hypervisor management tools
 - Requires no HA hardware or software
- Rich set of interfaces into the cloud
 - Web interface, scripting and web services
 - All function can be driven by a user or by scripts for complete automation

• Out-of-the-box and running in less than 4 hours
• Get started with only 4 servers





Hyper Nodes

Storage Nodes

List

Running Hyper Nodes

Actions ▼

	Node Id ▲	IP Address	Type	Enabled	Is Manager	Used Storage (%)	Free Memory (MB)	CPU Load	Deployed VMs
<input checked="" type="radio"/>	kvm_rack1.v00145ef50036	10.5.130.179	kvm	Yes	No	3	19933	0.21	3
<input type="radio"/>	kvm_rack1.v001a645a08f4	10.5.130.36	kvm	Yes	Yes	2	5168	0.09	2

1 - 2 of 2 items

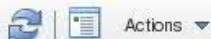
5 | **10** | 25 | 50 | 100 | All



Hyper Nodes
Storage Nodes

List

Running Storage Nodes



	Node Id	IP Address	Is Manager	Available Image Storage (MB)	Used Image Storage (MB)	Used Image Storage (%)
<input checked="" type="radio"/>	storage.storage-1	10.5.130.197	Yes	11401810	48162	0
<input type="radio"/>	storage.storage-2	10.5.130.194	No	11417635	46080	0
<input type="radio"/>	storage.storage-3	10.5.130.181	No	11472508	0	0

1 - 3 of 3 items

5 | 10 | 25 | 50 | 100 | All

Virtual Images



Plants



Search...



Description:

Plants By WebSphere

Plants

Describe the virtual instance you want to deploy.

Virtual image : Plants

Configure Software

Schedule deployment

Start now

Start later...

5/28/2012

3:51 PM

Run indefinitely

Run until...

5/28/2012

3:51 PM

OK

Cancel

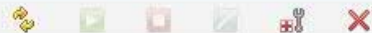
HSLT

Virtual System Instances

Search... ↑↓

Plants ▶

Plants



Created on:	May 23, 2012 7:06:22 PM
Provenance:	Virtual image
Provenance Name:	None provided
Using Environment profile:	None provided
Current status:	▶ The virtual system has been deployed and is ready to use
Updated on:	May 24, 2012 12:07:02 PM
Access granted to:	Administrator [owner] <input type="text" value="Add more..."/>
Snapshot	Snapshots are not currently supported by HSLT
+ History	The virtual system has been deployed and is ready to use
+ Virtual machines	5 total - 5 started
+ Comments	There are no comments yet

Virtual Images

Deployed VMs

List

Deployed Virtual Machines



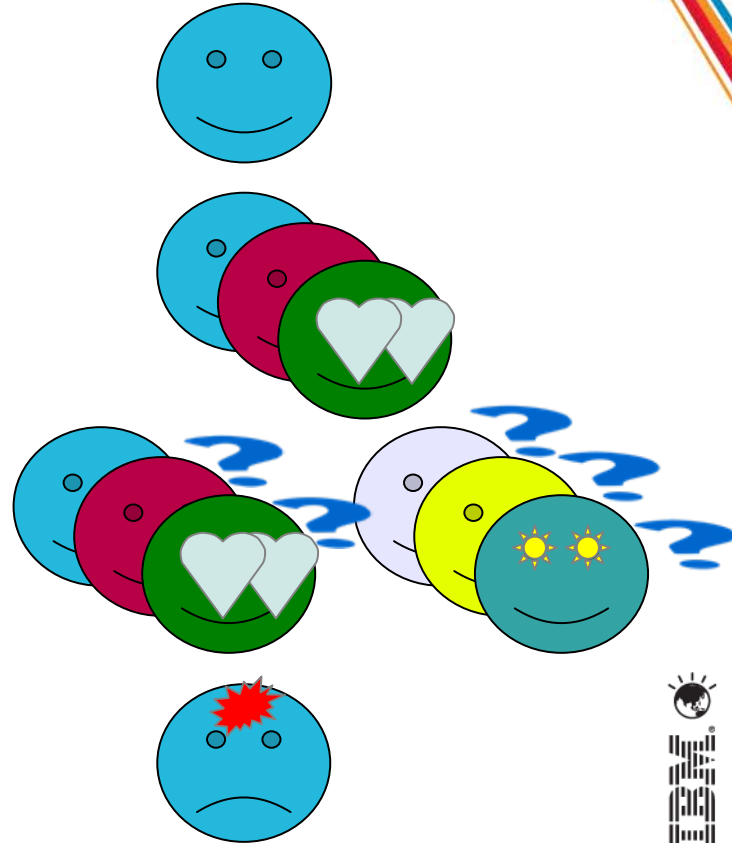
	Deployed VM	Tag	Virtual Image	Size (GB)	Private IP
	kvm_rack1.v00145ef50036.21520.u36780		Plants	Small	10.5.130.48
	kvm_rack1.v00145ef50036.32937.u36780		Plants	Small	10.5.130.52
	kvm_rack1.v00145ef50036.62769.u36780		Plants	Small	10.5.130.50
	kvm_rack1.v001a645a08f4.18405.u36780		Plants	Small	10.5.130.53
	kvm_rack1.v001a645a08f4.21207.u36780		Plants	Small	10.5.130.51

1 - 5 of 5 items

5 | 10 | 25 | 50 | 100 | All

SCP puts you back in control of your images

1. In the beginning, there was the **perfect image**...
2. Then users starting **making changes** and “snapshots”... and what they put in the images is unknown...
3. Then the images are copied to **multiple locations**... and some change again...
4. Then you need to apply a **critical security patch**... How...? Where...?



Welcome

Images

Images

Plants X



Actions

Summary

Versions

Hardware

Installed Software

High scale low touch Compatibility Details



Actions

Filter



	Product	Architecture	Vendor	Version
<input type="radio"/>	IBM HTTP Server		IBM	7.0
<input type="radio"/>	IBM SDK 5.0 for Linux IA32, Java Technology		IBM	5.0
<input type="radio"/>	IBM Tivoli Monitoring for Databases - DB2 Agent		IBM	6.2
<input type="radio"/>	IBM WebSphere Application Server Network Deployment		IBM	7.0
<input type="radio"/>	IBM WebSphere ILOG Decision Validation Services		IBM	7.0
<input type="radio"/>	IBM WebSphere Voice Response for AIX		IBM	6.1
<input type="radio"/>	Java Support		Sun	5.2
<input type="radio"/>	LINUX4AE	noarch	IBM Corporation	1.1
<input type="radio"/>	MAKEDEV	i386	Red Hat, Inc.	3.23
<input type="radio"/>	NetworkManager	i386	Red Hat, Inc.	0.7.0
<input type="radio"/>	NetworkManager-glib	i386	Red Hat, Inc.	0.7.0
<input type="radio"/>	NetworkManager-gnome	i386	Red Hat, Inc.	0.7.0
<input type="radio"/>	OMEGAMON WMQ Configuration Agent		IBM	370.0
<input type="radio"/>	ORBit2	i386	Red Hat, Inc.	2.14.3
<input type="radio"/>	OpenIPMI	i386	Red Hat, Inc.	2.0.16

1 - 100 of 805 items

5 | 10 | 25 | 50 | 100 | All

1 2 3 4 5 6 7 8 9

Welcome

Images

Images



All Resources

Reference Repository

Operational Repositories

webservice

IBM_SmartCloud_Provisioning

VM_Services

Operational Repository: VM_Services

Summary

Virtual Images

Deployed VMs



Filter

	Name	Last Modified	State	Indexing State
	I-24796-24943-u36780	5/23/12 7:28 PM	Running	Not Indexed
	I-25496-04642-u36780	5/23/12 7:28 PM	Running	Not Indexed
	I-34116-10196-u36780	5/23/12 7:28 PM	Running	Not Indexed
	I-54583-64001-u36780	5/23/12 7:28 PM	Running	Not Indexed
	I-81149-74216-u36780	5/23/12 7:28 PM	Running	Not Indexed

IBM realises value with SCP throughout the development lifecycle

Business challenge

Hardware constraints

- Significant number of machines
- Low HW utilisation rates
- Forced to use outdated HW

Time constraints

- Required time to setup a complex topologies
- Significant time spent on setup rather than testing

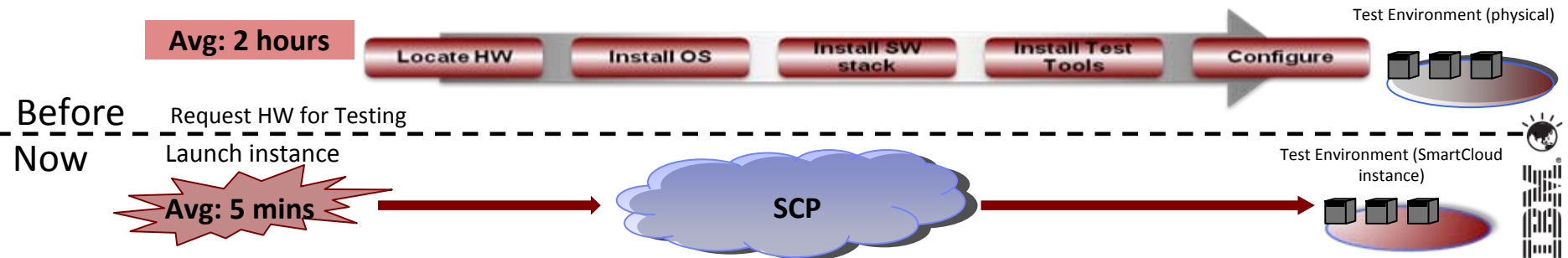
Skills requirements

- Training engineers to setup complex software stack

Solution

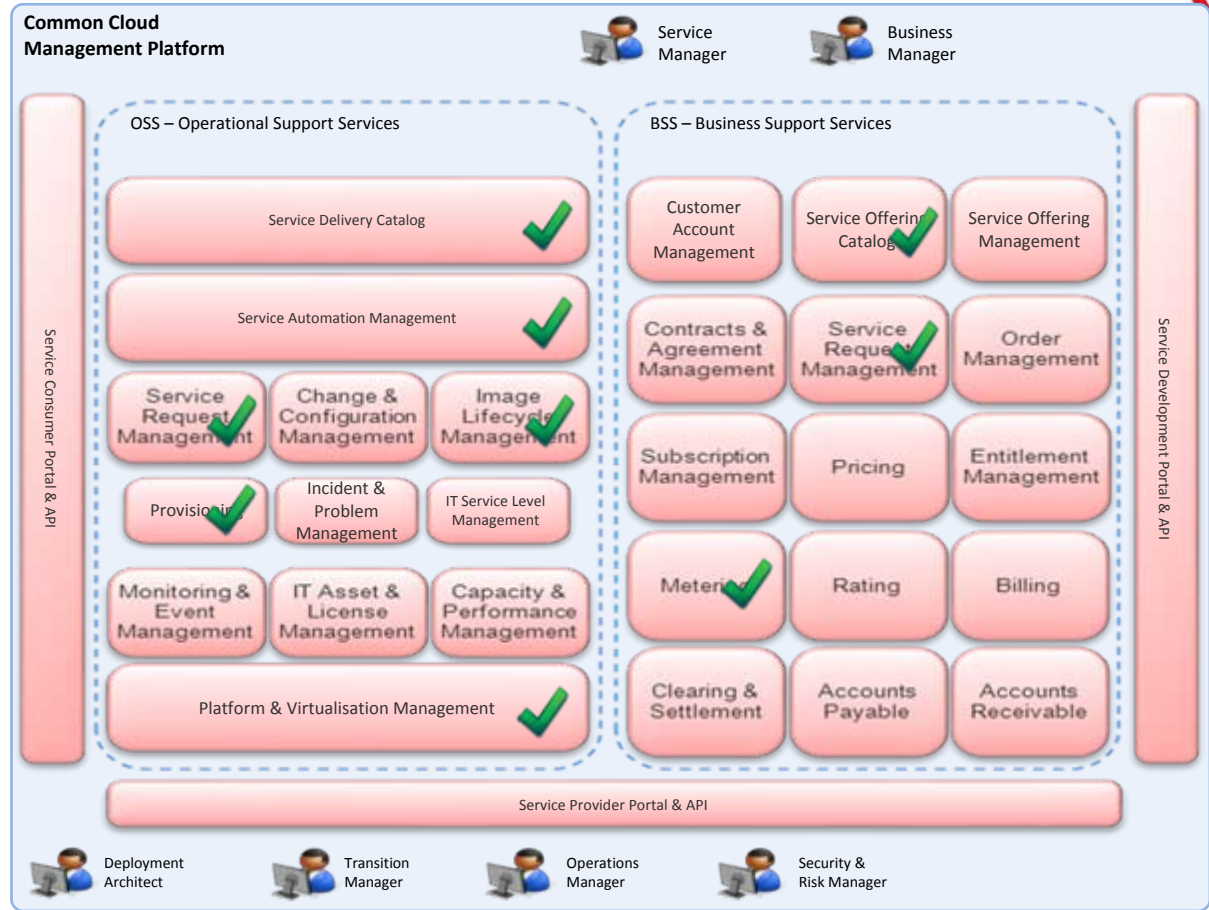
Leverage SmartCloud Provisioning to rapidly stand up development and test environments

- Currently using SmartCloud in 28 development and test projects in Tivoli
- Reduced setup time from 2 hours to 5 minutes
- Returned 356 old physical machines to surplus
- Enables more time to be spent validating software instead of setting up environments



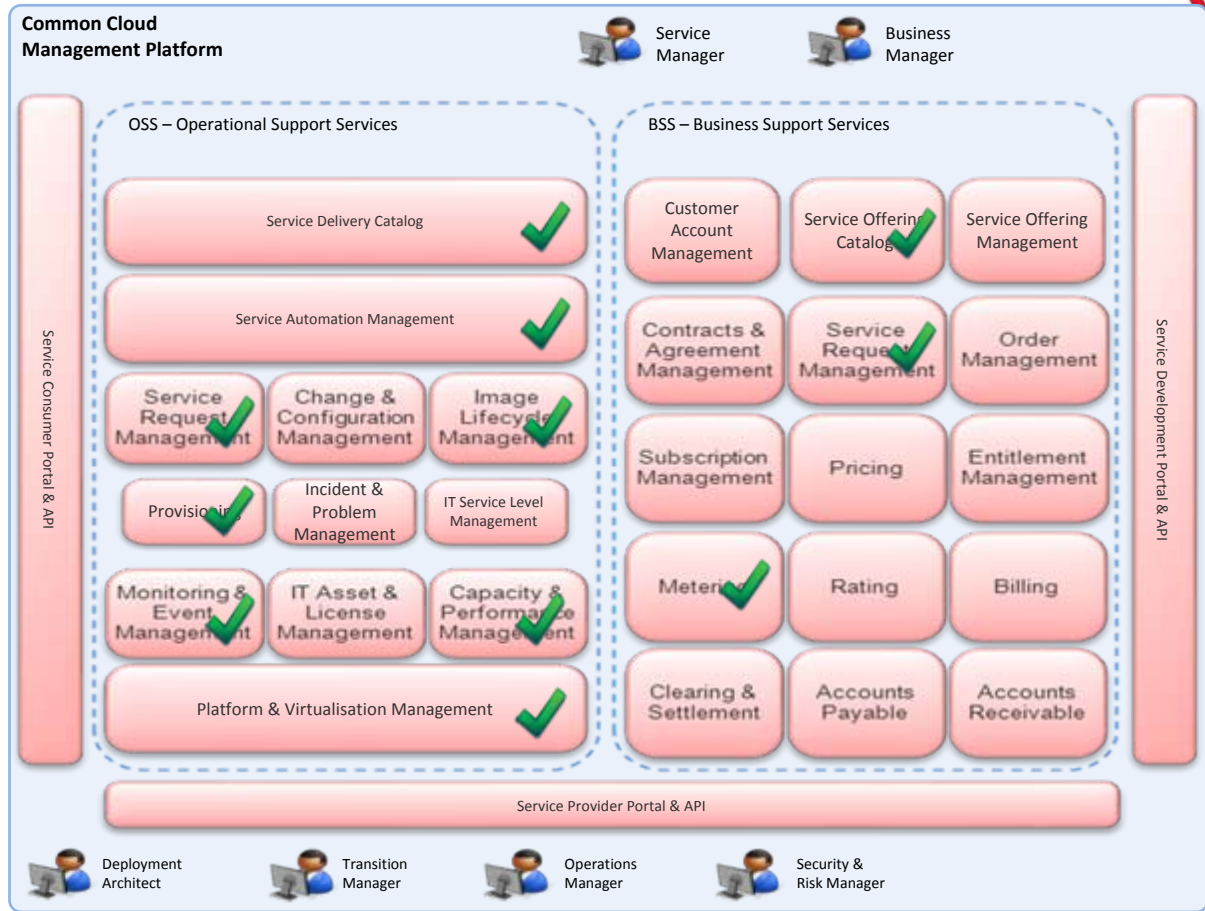
The foundation is now built!

- ✳ Hypervisor agnostic
- ✳ Reduced hypervisor licensing
- ✳ Hardware agnostic
- ✳ Image lifecycle mgmt
- ✳ Open source based
- ✳ Small footprint



Now add value with IBM SmartCloud Monitoring

- ➔ Ease migration to private clouds
- ➔ Monitor heterogeneous environment
- ➔ Gain unprecedented visibility and control
- ➔ Understand overall health of cloud infrastructure and workloads
- ➔ Click-in-context/drill-down capabilities
- ➔ Take advantage of built-in analytics
- ➔ Employ analytics for smarter capacity planning
- ➔ Make informed decisions with what-if analysis tools
- ➔ Intelligent workload placement with policy-driven analytics



File Edit View Help



Navigator

View: Physical

- Events
- Monitored Servers
- Networks
- Datastores
- VMware VI
 - VM:DEFAULT-tec-blade-10.mel.ESX
 - VM:DEFAULT-tec-blade-11.mel.ESX
 - VM:DEFAULT-tec-blade-7.mel.ESX
 - VM:DEFAULT-tec-websphere.mel.ESX
 - VM:DEFAULT-tivblade-13b.mel.ESX
 - VM:DEFAULT-tivblade-8b.mel.ESX
- CPU
- Disk
- ESX Server
- Memory
- Network
- Resource Pools
- Virtual Machines

Physical

Virtual Machines Status

VM Name	Overall Status	Power Status	Guest State	Tools Status	Up Time	Heartbeats	VM Percent Ready	GuestOS Name
andrewyu: tem.mel.swg.ibm (10.1...	green	poweredOn	running	toolsOk	3430989	299	0.220	Microsoft Windows Server 2008 R2
jbutcher - MS SQL W2K8 64-bit	green	poweredOn	running	toolsOk	364080	299	0.285	Microsoft Windows Server 2008 R2
jbutcher - Admin, Reporting and M...	green	poweredOn	running	toolsOk	348270	300	0.338	Microsoft Windows Server 2008 R2
jbutcher - AD DC IIS W2K8 64-bit	green	poweredOn	running	toolsOk	102680	300	0.275	Microsoft Windows Server 2008 R2
katrinaread: BA Contact Energy NZ ...	green	poweredOn	running	toolsOld	93084	300	0.417	Microsoft Windows 7 (64-bit)
Test 222 - Manny Santana	red	poweredOn	notRunning	toolsNotInstalled	84766	0	0.030	Unavailable
vmw010001103141	green	poweredOn	running	toolsOk	14880	300	0.046	Microsoft Windows XP Professional
vmw010001103142	green	poweredOn	running	toolsOk	5848	299	0.063	Suse Linux Enterprise 10 (64-bit)
vmw010001103144	green	poweredOn	running	toolsOk	5844	299	0.049	Suse Linux Enterprise 10 (64-bit)
Test 444 - Manny Santana	green	poweredOn	notRunning	toolsNotInstalled	4461	0	0.024	Unavailable
jbutcher - RHEL 6 64-bit	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Unavailable
jbutcher - Base W2K8 R2 64-bit	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Microsoft Windows Server 2008 R2
LEmyer-CaseManager-HQDemo2 ...	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Unavailable
LEmyer-CaseManager-HQDemo1	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Unavailable
template: WinXP Pro SP3 for ISDM	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Microsoft Windows XP Professional
template: SUSE 10 SP2 64bit	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Suse Linux Enterprise 10 (64-bit)
BrentonCzorny.Lombardi1.mel.sw...	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Unavailable
DanielRushbrook: ba 10.1.1.v2 (10...	green	poweredOff	notRunning	toolsNotRunning	Unavailable	Unavailable	Unavailable	Unavailable

Virtual Machines Configuration

Datacenter	VM Name	VM Server Name	IP Address	Hostname	Num CPUs	CPU Utilization	Resource Pool	Memory Size	Memory Limit	CPU Shares	Memory Shares	Fault Tolerance
CloudDC	katrinaread: BA Contact Energy NZ (10.1.100.125)	tivblade-8b.mel...	10.1.100.125	cognosdemo democentral.ibm.com	4	1	BA	16384	Unavailable	2000	40960	HA
CloudDC	jbutcher - RHEL 6 64-bit	tivblade-8b.mel...	Unavailable	Unavailable	2	Unavailable	Tivoli	4096	Unavailable	2000	40960	HA
CloudDC	jbutcher - MS SQL W2K8 64-bit	tivblade-8b.mel...	10.1.100.250	JBMSSQL.mel.swg.ibm	4	1	Tivoli	8192	Unavailable	4000	81920	HA
CloudDC	jbutcher - Base W2K8 R2 64-bit	tivblade-8b.mel...	168.254.160.85	W2K8R264-bit	4	Unavailable	Tivoli	8192	Unavailable	4000	81920	HA

Hub Time: Tue, 10/11/2011 03:46 PM

Server Available

Virtual Machines - isdm.mel.swg.ibm - SYSADMIN

The tools are evolving...

- To provide out-of-the-box integration
 - with other IBM products (Network, Storage, Endpoint)
 - with OpenStack
 - **to achieve Integrated Service Management**
- To add value through advanced service automation with
 - IBM SmartCloud Orchestrator*
 - SCP: Pattern deployment
 - SCP: Hybrid cloud technology
- Built to current and emerging standards
- IBM Service Management Library offerings
 - <http://www-304.ibm.com/software/brandcatalog/ismlibrary/search#rc=CloudSoftwareBundle:Cloud%20Software%20Bundle#page=1:1>

Virtual System Patterns

Search...	↑↓
Test Application Environment	
Test Standalone WAS	



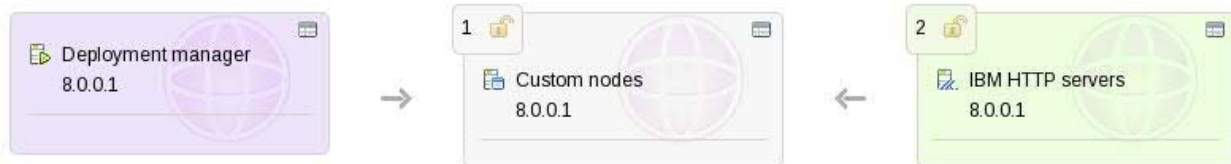
Test Application Environment



Description:	None provided
Created on:	May 24, 2012 3:22:05 PM
Current status:	Draft
Updated on:	May 24, 2012 3:22:58 PM
In the cloud now:	(none)
Access granted to:	Administrator [owner]
	<input type="text" value="Add more..."/>

Topology for this pattern:

Deploys to HSLT hypervisors.



- Integrated Service Management Library
- Find solutions
- By name
 - By company
 - By product
 - By type
 - By industry
- Solution areas
- Asset management
 - Business Service Management
 - Cloud service delivery
 - Data Center Automation
 - Energy management
 - Mobile / End Point Management
 - Network and service assurance
 - Security and compliance
 - Service and Infrastructure Analytics
 - Service Availability and Performance
 - Smarter Physical Infrastructure
 - Storage management
 - Systems management
- Marketplace
- Business Partner Integrations
- About IBM Library

Find Solutions

Search terms: **Cloud**

Cloud Software Bundle [X] 17 results

Show details

Sort by: **Last Modified**

Results per page 10 | 25 | 50

IBM ICCT Bundle to deploy IBM WebSphere MessageBroker 8.0.0.0 Server

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT Bundle to deploy Oracle 11G R2 in SLES11 OS

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT Bundle to deploy IBM Tivoli Monitoring Agent for MQ

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM IBM Deployment Planning and Automation for the Cloud

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Demo](#) [Contact Provider](#)

IBM ICCT Bundle to deploy IBM HTTP Server 7.0

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT Bundle to deploy Apache Web Server 2.4.1

Reviews: ★★★★★ Provider: IBM

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- Industry +
- Price +
- Service Management +
- Solution area +

- Related resources
- Integrated Service Management
 - Software Demos

- Software Demos
- Service Management Communities
- IBM Connect
- Technical Resources
- Tivoli Newsstand

IBM ICCT Bundle to deploy IBM Tivoli Directory Server v6.3

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT Bundle to deploy IBM Tivoli Monitoring Agent for Linux OS v6.X

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT bundle to deploy IBM WAS Update Installer v70021

Reviews: ★★★★★ Provider: IBM

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IBM ICCT Bundle to deploy IBM DB2 Server 9.7

Reviews: ★★★★★ Provider: IBM

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IBM ICCT Bundle to deploy IBM Tivoli Monitoring Agent for WAS

Reviews: ★★★★★ Provider: IBM

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IBM ICCT Bundle for IBM WebSphere MQ 7.0.1.4 Server

Reviews: ★★★★★ Provider: IBM

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IBM ICCT Bundle to deploy IBM WebSphere Application Server Network Deployment 8.0

Reviews: ★★★★★ Provider: IBM

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IBM ICCT Bundle to deploy IBM WebSphere Application Server Community Edition 3.0

Reviews: ★★★★★ Provider: IBM

[Info](#) [Download](#) [Contact Provider](#)

IBM ICCT Bundle to deploy IBM WebSphere MQ 7.0.1 Server

Reviews: ★★★★★ Provider: IBM

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IBM has the tools to build and manage your Cloud-enabled data centre / Private Cloud

- ✓ Leverage IBM's experience with the CCRA
- ✓ Identify gaps and procure the tools that support the fundamental building blocks
- ✓ Invest in tools that evolve with the industry, and your business

Questions?





Tools for Building and Managing Your Cloud Service Delivery Platform

Peter Tuton

IBM Service Management and Cloud Technical Specialist

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Meet the Experts. Optimise your infrastructure.

May 31 – June 1

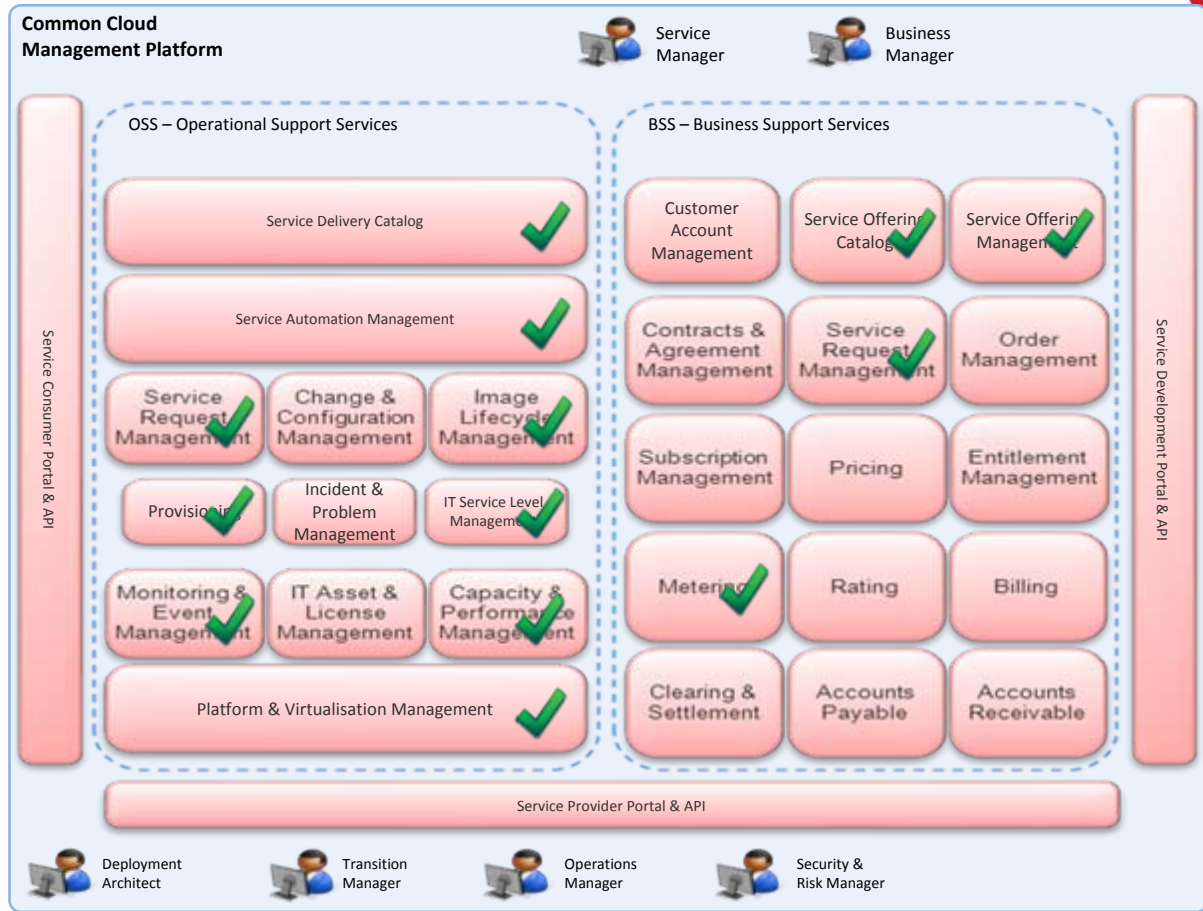
Sheraton on the Park Hotel, Sydney

Backup



Advanced technology with IBM Service Delivery Manager

- ➔ A self-service portal interface for in-advance computing reservations of virtualised environments, including storage and networking resources
- ➔ Automated provisioning and de-provisioning of resources
- ➔ Real-time monitoring of physical and virtual cloud resources
- ➔ Integrated usage and accounting chargeback capabilities that can help system administrators to help, track, and optimise system usage
- ➔ Built-in high availability of the cloud management platform
- ➔ Prepackaged automation templates and workflows for most common resource types
- ➔ Can leverage existing hardware for the cloud infrastructure



Service catalogue...



Home - Request a New Service - Virtual Server Management

Backup and Restore Server Image Manage Image Library

Manage Users and Teams

Modify Server

Cancel Public Cloud Project
Use this task to cancel a project that manages de-provisioned and would no longer will be an

Create Project from Saved Image
Provision one virtual server from a saved image

Create Project with Hybrid Servers
Provision Servers from any of the available cl

Create Project with KVM Servers
Provision one or more KVM virtual servers con

Create Project with POWER LPAR Servers v
Provision one or more POWER LPARs via IBM

Create Project with Xen Servers
Provision one or more Xen virtual servers cont

Create Project with zVM Linux Servers
Provision one or more zVM Linux virtual servers containing a software image.

Type the request name Search

My Requests

Completed (2)

JKS #1 Requested

JKS #3 Requested

JKS #2 Requested

DIFFERENT Requested

with VMware Servers DIFFERENT Requested

Manage Requests

Completed (0)

Decommissioned

Decommissioned

Decommissioned

Decommissioned

Decommissioned

Manage Projects | Manage Servers

Create Project with VMware Servers

- Project Details
- Requested Image

Server Details (optional)

Additional Disks (optional)

Additional Software (optional)

Network Configuration (optional)

Other Settings (optional)

Summary

Summary

Project Name	pt_Pulse	N/A
Project Description	Pulse Demonstration	
Project Type		
Start Date	5/25/12 2:57 PM	
End Date	6/8/12 2:57 PM	
Team Access	AUTOMATI	
Total Server(s)	1	
Active Server(s)	N/A	
Monitoring Agent Installed	true	

Servers CPU Memory Disk

Create Project with VMware Servers
Provision one or more VMware virtual machines containing a software image.

There are sufficient resources.

Back Next Finish Cancel

Home - Request a New Service - Virtual Server Management

- Backup and Restore Server Image
- Manage Users and Teams
- Modify Server
- Cancel Public Cloud Project
 - Use this task to cancel a project that manages servers in a public cloud. All of its virtual servers will be de-provisioned and would no longer will be available.
- Create Project from Saved Image
 - Provision one virtual server from a saved image in a new project.
- Create Project with Hybrid Servers
 - Provision Servers from any of the available clouds (Public or Private) based on Enterprise Policies
- Create Project with KVM Servers
 - Provision one or more KVM virtual servers containing a software image.
- Create Project with POWER LPAR Servers via IBM Systems Director VMControl
 - Provision one or more POWER LPARs via IBM Systems Director VMControl containing a software image.
- Create Project with Xen Servers
 - Provision one or more Xen virtual servers containing a software image.
- Create Project with zVM Linux Servers
 - Provision one or more zVM Linux virtual servers containing a software image.
- Manage Image Library
- Modify Project
- Cancel Project
 - Use this task to cancel a project. All of its virtual servers will be de-provisioned and would no longer will be available. Any saved images will also be deleted.
- Cancel Workload Deployer Project
 - The virtual system created upon Workload Deployer is deleted.
- Create Project with Amazon EC2 Servers
 - Provision one or more virtual servers from Amazon EC2.
- Create Project with IBM SmartCloud Server
 - Provision one or more virtual servers from IBM SmartCloud Server.
- Create Project with POWER LPAR Servers
 - Provision one or more POWER LPARs containing a software image.
- Create Project with VMware Servers
 - Provision one or more VMware virtual machines containing a software image.
- Create Project with a Workload Deployer Pattern
 - Provisions a Workload Deployer Pattern to a set of virtual servers in a Workload Deployer cloud group.
- Custom Create Project with VMware Servers
 - Provision one or more different VMware virtual machines containing a software image.

My Requests

0 10

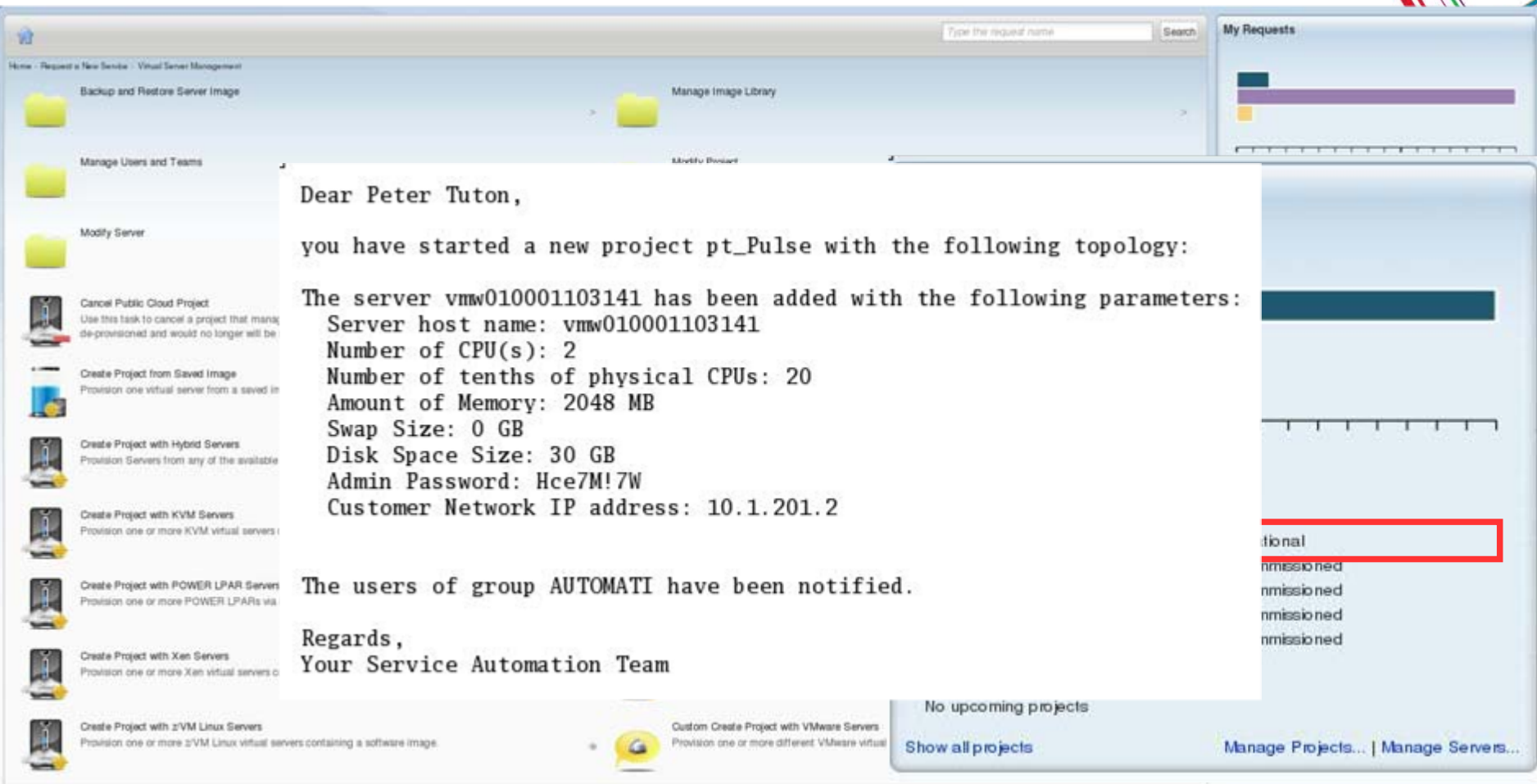
In Progress (1) Resolved (17) Canceled (2)

Recent Activity

Create Project with VMware Servers pt_Pube	In Progress
Cancel Project JAS #6	Resolved
Cancel Project JAS #3	Resolved
Cancel Project JAS #2	Resolved
Cancel Project DIFFERENT	Resolved

[Show all requests](#) [Manage Requests...](#)

Upcoming Projects
No upcoming projects
[Show all projects](#) [Manage Projects...](#) [Manage Servers...](#)



Dear Peter Tuton,

you have started a new project `pt_Pulse` with the following topology:

The server `vmw010001103141` has been added with the following parameters:

Server host name: `vmw010001103141`
Number of CPU(s): 2
Number of tenths of physical CPUs: 20
Amount of Memory: 2048 MB
Swap Size: 0 GB
Disk Space Size: 30 GB
Admin Password: `Hce7M!7W`
Customer Network IP address: `10.1.201.2`

The users of group `AUTOMATI` have been notified.

Regards,
Your Service Automation Team

Hybrid cloud management from your own datacenter...



Home - Request a New Service - Virtual Server Management

Manage Image Library

Create Project with Amazon EC2 Servers

Provision one or more virtual servers from the Amazon EC2 containing a specified image

General

*Project Name: *Team to Grant Access: AUTOMATI

Project Description

*Start Date: 5/25/2012 *Start Time: 3:49 PM *End Date: Indefinite

Requested Image

Resource Group Used to Reserve Resources: Amazon EC2 Resource Pool Monitoring Agent to be installed

*Image to be Deployed:

Select	Name	CPU's	Memory	Storage
<input checked="" type="radio"/>	Amazon Linux 32bit	2	0.599 GB	0 GB

*Instance Type: *Number of Servers to be Provisioned:

OK Cancel

My Requests

In Progress (1) Resolved (17) Cancelled (2)

Recent Activity

- Create Project with VMware Servers pt_Pulse In Progress
- Cancel Project JAS #6 Resolved
- Cancel Project JAS #3 Resolved
- Cancel Project JAS #2 Resolved
- Cancel Project DIFFERENT Resolved

Show all requests Manage Requests

specified image

g a specified image

No opening projects

Show all projects Manage Projects | Manage Servers

Monitoring...

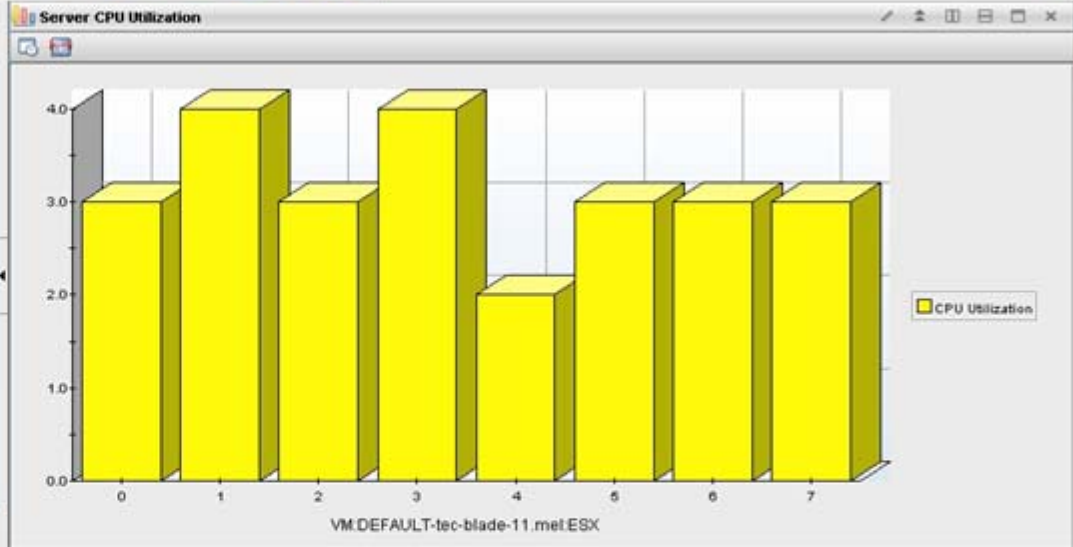


File Edit View Help

Navigator View: Physical

- Enterprise
 - Linux Systems
 - isdm
 - isdm-itm
 - Warehouse Proxy
 - Summarization and Pruning Agent
 - Linux OS
 - Performance Analyzer Warehouse Agent
 - VMware VI Agent - ManageFrom.isdm-itm.VM
 - Clusters
 - Events
 - Monitored Servers
 - Networks
 - Datastores
 - VMware VI
 - VM.DEFAULT-tec-blade-10.mel.ESX
 - VM.DEFAULT-tec-blade-11.mel.ESX
 - VM.DEFAULT-tec-blade-7.mel.ESX
 - VM.DEFAULT-tec-websphere.mel.ESX

Physical



Server Network

NIC Name	Usage	Transmitted	Received	Pkts Received	Pkts Transmitted
vmnic0	0	0	0	700	86
vmnic1	2	1	1	2197	1738

Hub Time: Tue, 10/11/2011 03:43 PM

Server Available

VMware VI Server - isdm.mel.swg.ibm - SYSADMIN

Metering...



Parameter Selection

Invoice by Account Level

Account

Account Invoice Number 1

Account 1

Starting Account

Date Range

Date Range (below)

Ending Account

Start Date

1 January 2011

End Date

10 October 2011

Date Range:

The Big Time Company

Select desired date

Corporate Headquarters

3013 Douglas Blvd.

Roseville, CA 95661

United States of America

TIVOLI - Tivoli Customer

Invoice

Invoice

	Units	Rate	Charge
CPU Hour	<u>288.67</u>	0.70000000	202.05
Memory GB Hour	<u>44,338.98</u>	0.00300000	133.02
Server Hour	<u>28.87</u>	42.00000000	1,212.39
Storage GB Hour	<u>360.23</u>	0.00300000	1.09
Virtual Server Service - VMware			1,548.55

Total For: TIVOLI - Tivoli Customer

1,548.55

Finally, control processes with IBM SmartCloud Control Desk

- ➡ A comprehensive IT Asset and Service Management solution
- ➡ Helps reduce cost and minimise service disruptions
- ➡ Automated service request handling
- ➡ Efficient change management
- ➡ Optimised asset life-cycle management across IT and enterprise domains

