

# Smarter Data Center 2012



**Laura Meroni**

IBM Cloud Managed Services

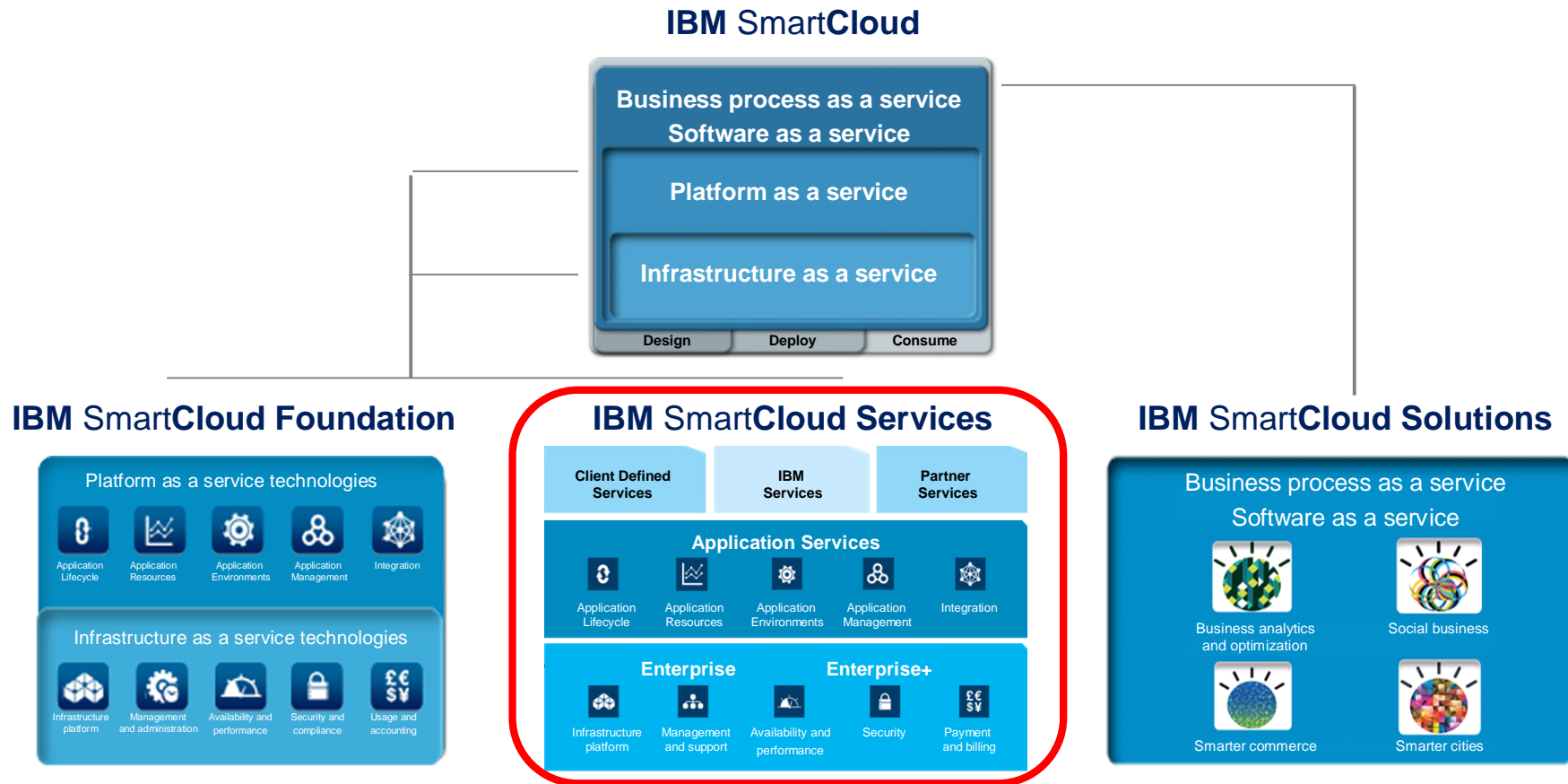
Le soluzioni di cloud pubblico IBM SmartCloud Enterprise e IBM SmartCloud Enterprise+



Più facile da gestire,  
più economico, più flessibile:  
alla scoperta di uno  
Smarter Data Center



# IBM SmartCloud represents the IBM vision for cloud computing



**Proven Strategy Consulting, Migration, & Management Expertise**

**Common Open Standards Technology and Industry Ecosystem**



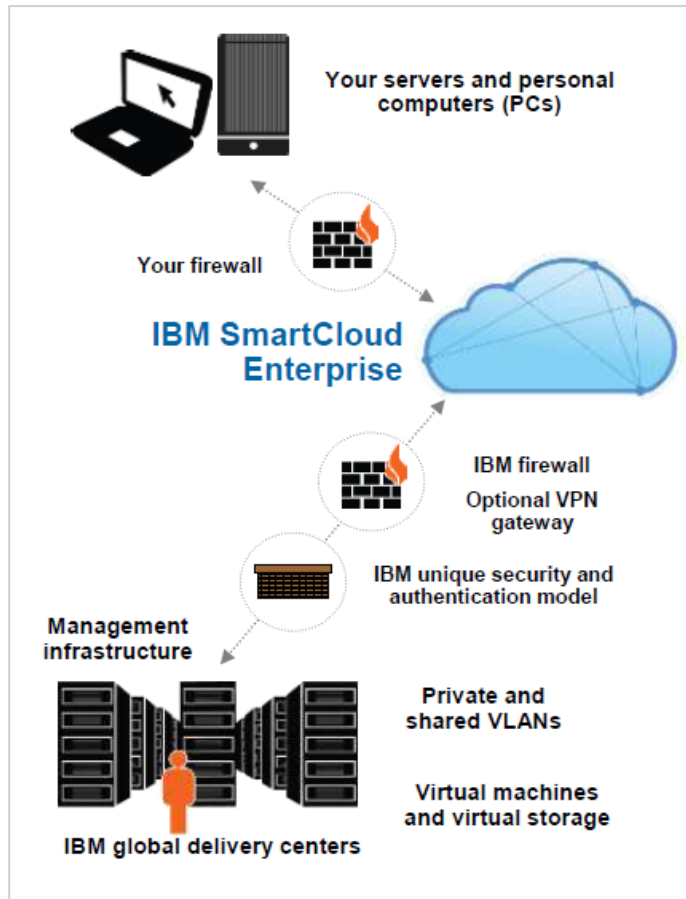
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**La sfida dei data center: una partita tra qualità dei servizi ed efficienza.**

# IBM SmartCloud Enterprise features and functions – at a glance

Italy landing page <http://ibm.com/services/it/cloud>



More at:

<http://www.ibm.com/cloud/solutions/enterprise>

Cloud Portal: <http://www.ibm.com/cloud/enterprise>

## Features and functions:

- Nine virtual (Intel) server configurations (32/64 bit cfg) available
- Operating systems:
  - Linux; Red Hat, Novell SUSE or bring your own (e.g. Ubuntu)
  - Windows Server 2003 and 2008
- Choice of a pre-configured IBM or IBM Partner middleware/software images
- Persistent storage based on fixed blocks dynamically attached/detached up to 10TB each
- Object storage providing highly accessible and secure Internet file system with nearly unlimited capacity
- Virtual servers accessible directly from the Internet or isolated in expanded VPN environments
- Premium support services as a supplement to forums, with optional add-on operating system support (Italian language)
- Local support services (Onsite and Remote) – Italy
- Six sites: US(2), Canada, Germany, Japan and Singapore with massive capacity

## Payment options:

- Pay-as-you-go
  - Per hour usage charges for virtual servers, storage, software images, storage, VPN environments and static IP addresses
  - Full billing details downloadable from the cloud portal
- Reserved capacity package options



Nine server and eight attachable persistent storage options enable you to configure systems to match a wide variety of workloads

Virtual machine (VM) Options	32-bit configurations				64-bit configurations				
	Copper	Bronze	Silver	Gold	Copper	Bronze	Silver	Gold	Platinum
Virtual CPUs with 1.25 Gigahertz	1	1	2	4	2	2	4	8	16
Virtual memory (GB)	2	2	4	4	4	4	8	16	16
Instance storage (GB)	60	175	350	350	60	850	1024	1024	2048



- Intel architecture servers can be provisioned with Linux (Red Hat, Novell SUSE or customer provided) or Microsoft Windows Server (2003 or 2008) and your choice of middleware.
- Prices start from **0,078 €per hour\*** for a virtual machine, including operating system. Reserved capacity options provide pools of resources at discounted rates.
- Dynamically attach and detach up to three extra blocks of persistent (RAID protected) storage to an instance, preformatted (ext3) or raw in eight sizes from 60 GB to 10 TB.





You can have your development and test environment running in minutes in either IBM Cloud datacenter

IBM  
Close [x]

### Add instance

Step 1 of 4: select image View: Public

Select Data Center :\*

- EHN
- RTP
- EHN
- us-co-dc1
- ca-on-dc1
- ap-jp-dc1
- ap-sg-dc1

Aviarc-3.3.1 Trial Edition V0.6.4 - PAYG (EHN)  
Aviarc 3.3.1, SLES 11 SP1 - for EHN datacenter (Red Hat Enterprise Linux/5.4)

CohesiveFT VPN-Cubed Datacenter Connect Trial Edition V0.6.4 - PAYG (EHN)  
http://cohesiveft.com/vpncubed - for EHN datacenter (Red Hat Enterprise Linux/5.4)

CohesiveFT VPN-Cubed Datacenter Connect Trial Edition V2.0.0 - PAYG (EHN)  
CohesiveFT VPN-Cubed 2.0.0 DatacenterConnect Trial- for EHN datacenter (Red Hat Enterprise Linux/5.4)

CohesiveFT VPN-Cubed Datacenter Connect V0.6.4 - BYOL (EHN)  
http://cohesiveft.com/vpncubed (Red Hat Enterprise Linux/5.4)

CohesiveFT VPN-Cubed Datacenter Connect V2.0.0 - BYOL (EHN)  
CohesiveFT VPN-Cubed 2.0.0 UL - for EHN datacenter (Red Hat Enterprise Linux/5.4)

DB2 Express-C 9.7.1 - PAYG (EHN)  
DB2 Express-C on SLES 32-bit. Design, prototype, develop, and test database applications under the Pay As You Go licensing model. Build 12.1.rtp. - for... (SUSE Linux Enterprise Linux/5.4)

Next Cancel

IBM  
Close [x]

### Add instance

Step 2 of 4: configure image

You selected: SUSE Linux Enterprise Server 11 SP1 for x86 (EHN)  
Suse Linux 32 bit - for EHN datacenter

Complete the fields below to configure your instance selection. Required fields are indicated with an asterisk (\*).

Request name:\* TestLinux

Quantity:\* 1

Server configuration:\* Copper 32 bit

Minimal local disk:  Yes

Expires on: May 15, 2013

Key:\* KeyAdmin + Add Key

VLAN: Public Internet

Select IP: system generated How do I add an IP?

Virtual IP: none + Add IP

Persistent disk: [How do I add Storage?](#)

Image ID: 20010002

Price: \$0.095 / UHR

Previous Next Cancel



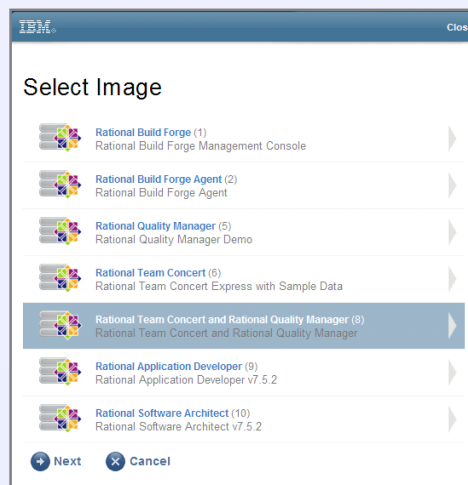
La sfida dei data center: una partita tra qualità dei servizi ed efficienza.

# Environment running in minutes on the IBM Cloud

- The easy-to-use self-service portal guides you through the setup of what you need and triggers the automated provisioning of your servers

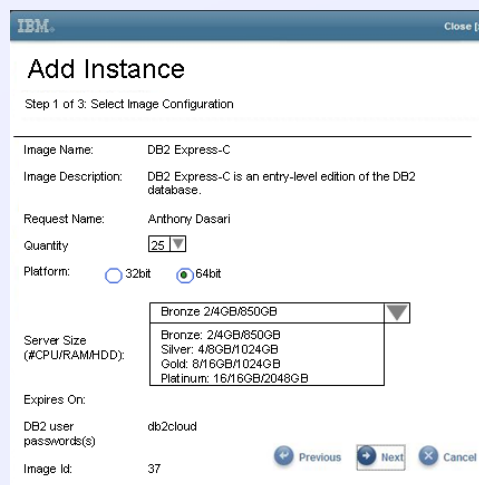


## Click and choose the service you need



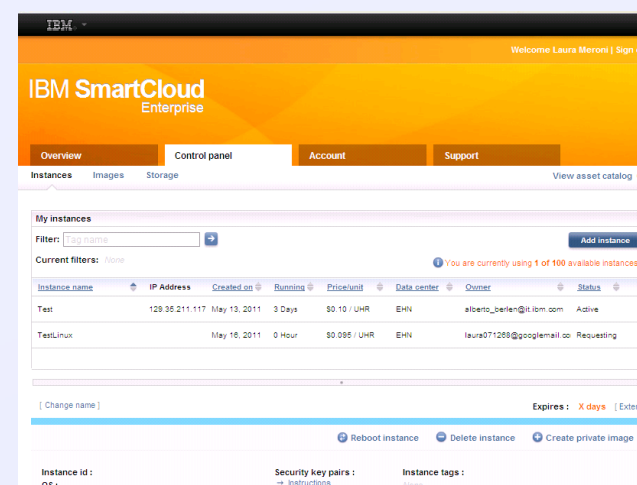
### Step 1

## Choose the hardware and usage configuration



### Step 2

## Application provisioned and ready to run

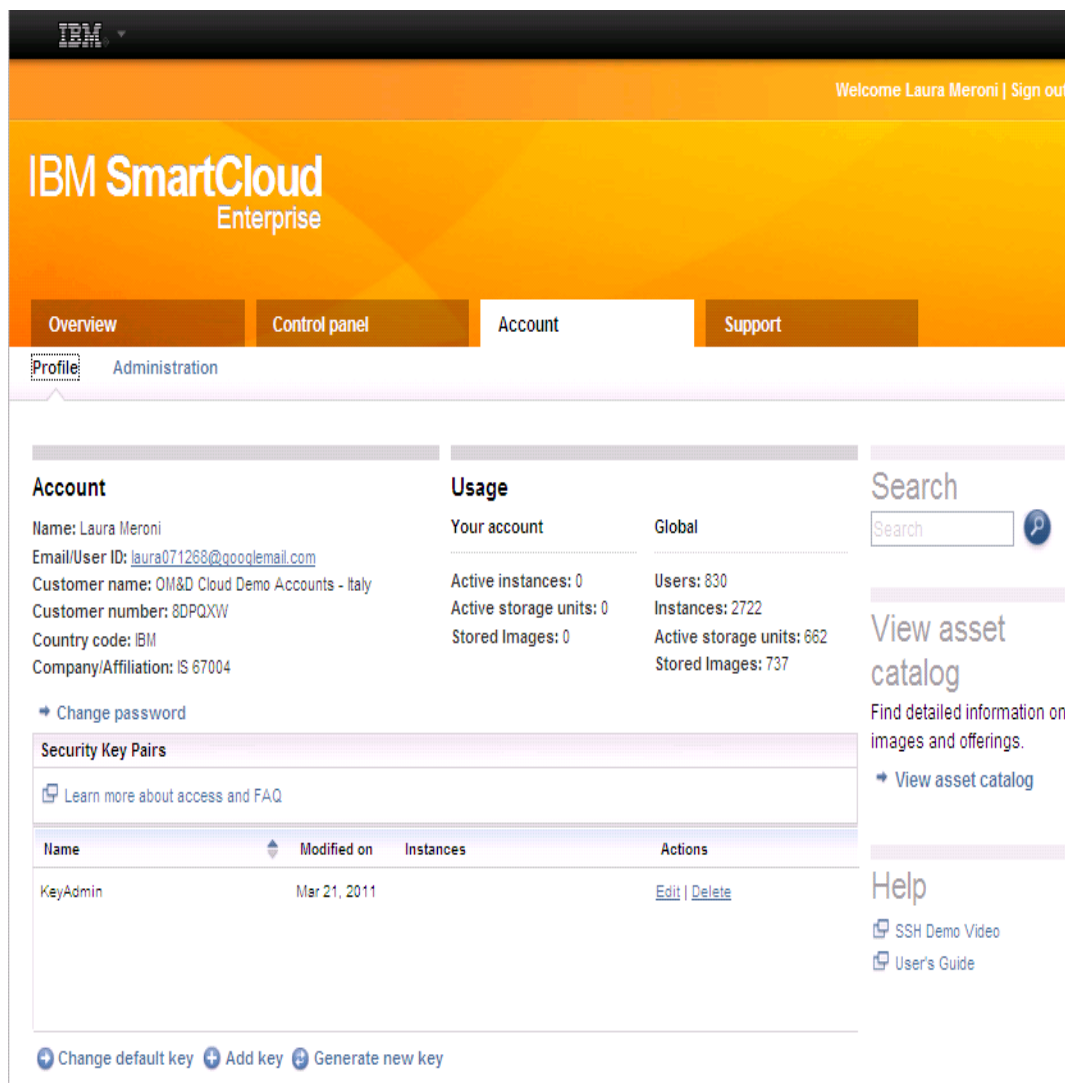


### Step 3



# Monitor, manage and control through the Web Portal

- **Control tab**
- Instance
- Images
- Storage
- **Account tab**
- Managing Users
- Usage overview
- Access keys
- IP addresses
- **Support tab**
- Forums
- Video & Document libraries



The screenshot shows the IBM SmartCloud Enterprise web portal. At the top, it says "Welcome Laura Meroni | Sign out". The main header is "IBM SmartCloud Enterprise". Below the header are four tabs: "Overview", "Control panel", "Account" (which is selected), and "Support". Under the "Account" tab, there is a "Profile" section for "Administration".

The main content area is divided into three columns:

- Account:**
  - Name: Laura Meroni
  - Email/User ID: [laura071268@googlemail.com](mailto:laura071268@googlemail.com)
  - Customer name: OM&D Cloud Demo Accounts - Italy
  - Customer number: 8DPQXW
  - Country code: IBM
  - Company/Affiliation: IS 67004
  - [Change password](#)
- Usage:**
  - Your account: Global
  - Active instances: 0
  - Active storage units: 0
  - Stored Images: 0
  - Users: 830
  - Instances: 2722
  - Active storage units: 662
  - Stored Images: 737
- Search:**
  - Search input field with a magnifying glass icon.
  - [View asset catalog](#)
  - Find detailed information on images and offerings.
  - [View asset catalog](#)

Below the Usage section is a "Security Key Pairs" section with a link to "Learn more about access and FAQ".

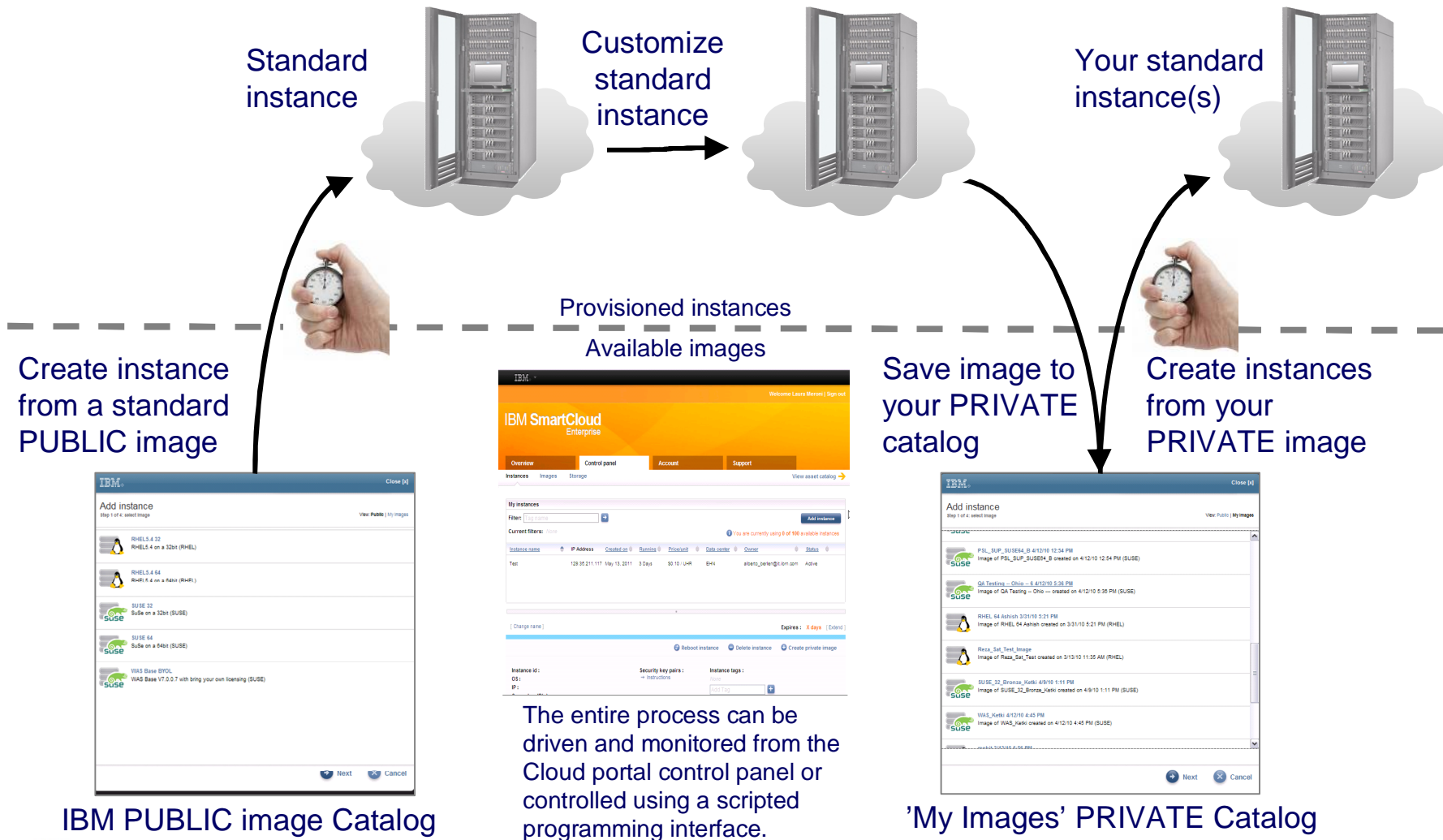
Name	Modified on	Instances	Actions
KeyAdmin	Mar 21, 2011		<a href="#">Edit</a>   <a href="#">Delete</a>

At the bottom of the Security Key Pairs section, there are three buttons: [Change default key](#), [Add key](#), and [Generate new key](#).



# Working with virtual machine instances and images

## IBM Cloud Service Catalog Customization (Static)



La sfida dei data center: una partita tra qualità dei servizi ed efficienza.





# IBM SmartCloud Enterprise software asset catalogs provide a software store for your server configurations

Asset Catalog  
for IBM SmartCloud Enterprise

Home My Dashboard Communities **Assets** Help

Submit an Asset

Visual Browse

Search for Assets

Filters: Category: Developer Cloud

Previous | 1-25 of 1,095 | Next

Name	Version	State	Community	Rating	Modified
IBM Firewall Image on Red Hat EL 6 32-bit PAYG	1.0	Approved	Cloud Computing Core Community	★★★★★	Nov 23, 2011

IBM Cloud Sw Images



Novell



- The **'public' catalog** contains a growing list of operating system **Images** with or without **selected software** and **software bundles** from IBM (Lotus®, WebSphere®, DB2®, Informix®, Cognos®, Tivoli®, Rational®), Alphinat, Aviarc, BeyondTrust, CohesiveFT, Corent, Grid Robotics, Kaavo, NetEnrich, OpenCrowd, Pragma Systems, Servoy, SugarCRM or Zeus.
- The licensing options include:
  - **"Pay-as-you-go"** ("PAYG"), with hourly rates: You choose the desired software, accept the license terms online, and receive a monthly usage bill
  - **"Bring your own license"** ("BYOL"): You own or buy a software license and can use the prebuilt image in the catalog
- Your **'private'** and **'community' catalogs** provide a place for you to store and manage **customized copies** of public images and images you **build** in the cloud or **import**.



La sfida dei data center: una partita tra qualità dei servizi ed efficienza.

# White labeling/prime bidder overview

Welcome Torben Fersøe | Sign out

## IBM SmartCloud Enterprise

Overview | Control panel | Account | Support

Instance name	Status	Created on	Expires
00asdf	Active	Dec 10, 2011 7:08:46 PM	728 Days
ephemeral_lozone_tests	Active	Dec 9, 2011 8:22:00 PM	727 Days
01orub	Active	Dec 8, 2011 4:41:18 PM	726 Days
rsummer-bis-1	Active	Dec 5, 2011 8:14:43 PM	723 Days
RHEL 5.5 RTP	Active	Dec 3, 2011 3:16:48 PM	721 Days

[View instances](#)

Type	Name	Notification	Date
🗑️	Ausile	Instance removed	Nov 9, 2011 9:32:09 AM
✅	Ausile	Instance active	Nov 9, 2011 9:18:44 AM
⬇️	Ausile	Instance provisioning	Nov 9, 2011 8:57:45 AM
🗑️	sampension	Instance removed	Sep 28, 2011 7:33:45 PM

[View notifications](#)

**Summary**  
Your account  
Active instances: 1  
Active storage units: 0  
Stored images: 1

**Related links**  
[IBM's official Cloud Computing site](#)  
[IBM SmartCloud Enterprise information](#)  
[Support community](#)  
[New to Cloud Computing?](#)  
[User's Guide](#)

IBM SmartCloud  
Rethink IT. Reinvent business. Easy-to-deploy cloud computing solutions from IBM.  
Learn more at [ibm.com/smartcloud](http://ibm.com/smartcloud).

About IBM | Privacy | Contact | Terms of use | Accessibility | IBM Feeds | Jobs

Welcome Prime Bidder | Sign out

## Acme Smart Business

Overview | Control panel | Account | Support

Instance name	Status	Created on	Expires
Sample instance	Active	Dec 7, 2011 9:09:30 PM	0 Days

[View instances](#)

Type	Name	Notification	Date
You currently do not have any notifications.			

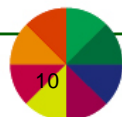
[View notifications](#)

**Summary**  
Your account  
Active instances: 1  
Active storage units: 0  
Stored images: 0

**Related links**  
[Acme's official Cloud Computing site](#)  
[Support community](#)  
[New to Cloud Computing?](#)

Cloud at Acme  
Reduce costs, improve service delivery, enable business innovation -- with easy-to-deploy cloud computing solutions from Acme.  
Learn More at <http://acme.com/smartcloud>

ADITYA BIKLA





# Support services

## Forum Support (no charge)

Complimentary technical support for all services available through the IBM SmartCloud Enterprise web portal, including monitored forums.



## Premium Support

You can purchase Premium Support services that extend the complimentary Forum Support with

- Around-the-clock telephone support,
- A Web-based ticketing system to submit and review service requests,
- Remote technical support to assist in using the Web portal, accessing services, creating instances and managing image, functions within the portal, and
- The option to add operating system support.

## Advanced Premium Support

Includes the services of Premium Support plus:

- Severity-level-driven response times, from 30 minutes for severity 1 (severe impact to your business) to 24 hours for severity 4 (no business impact)
- A Service Level Agreement (SLA) with refunds, should IBM not meet committed response times




La sfida dei data center: una partita tra qu

# IBM SmartCloud Enterprise: Monthly cost estimator



Estimated total monthly charge (Austria / EUR): € 2.687

Snapshot

- Software images
- Virtual machines
- Storage
- Internet data transfer
- Network access
- Support
- Compare models

First, select the software images you want to run from the 'Software image' drop-down menu. Think of each line as a server type. The list of images includes standalone operating systems and operating systems combined with additional software, in 32- and 64-bit versions. For each image, the image name indicates the charge option associated with the image. PAYG stands for 'Pay as you go' and implies by-the-hour charges. BYOL stands for 'Bring your own license', i.e. you are bringing a license that you have already paid for.

Description for your reference	Software image	Hourly rate	Software monthly charges
Web/HTTP servers	SUSE Linux Enterprise Server 11 SP1 for x86 (64-bit) - all software charges included in the i	n/a	n/a
Application servers	IBM WebSphere Application Server V8.0 with feature packs Web 2.0, Mobile v1.1 and Dyna	Prepaid	Prepaid
Database servers	IBM DB2 Express-C 9.7.5 for Red Hat Enterprise Linux 5.6 (32-bit) - PAYG	€ 0,000	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0
	Please select the software image you want to run, then choose the virtual machine size on th	€ 0	€ 0

Total monthly software charge € 0

Start over

Save your input

Next





The IBM enterprise-class service delivery platform plans to offer two tiers to help optimize delivery requirements and economics

## IBM SmartCloud

### Enterprise

Rapid access, multi-tenant solution scaled and priced based on usage

**Workloads**

Ideal for developing and deploying new application designs

**Operating system**

Linux, Windows

**Management level**

**Self service** with advanced premium support

**Availability**

99.9%

**Security**

Virtual and some physical isolation

**Software usage**

Bring your own / pay as you go / free developer use

**Pricing**

Hourly usage-based with reserved options

### Enterprise+

Robust multi-tenant solution, including managed production services

Ideal for migration of traditional and higher availability applications

Linux, Windows, AIX

**Fully managed** from infrastructure to application

98.5-99.9%

Multiple levels of isolation

IBM provides operating system and tool licenses

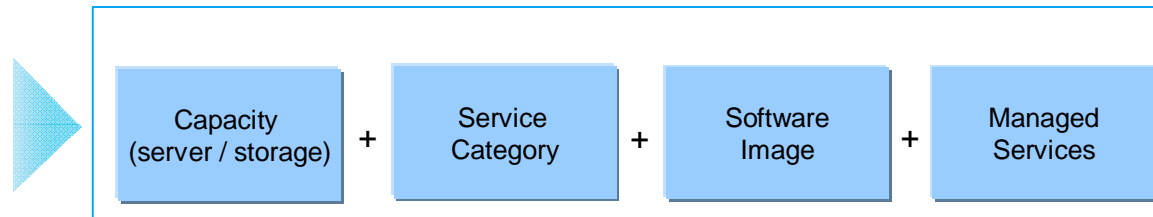
Monthly usage-based and fixed contract



La sfida dei data center: una partita tra qualità dei servizi ed efficienza.

# SCE+ provides a IaaS reliable and secure infrastructure to provision cloud resources using the administration portal

## Client Portal



## Example

Capacity	Service Category	Software Image	Managed Services
64-bit System x Virtual Machine	99.5 Silver SLA	RHEL Linux 5.4	Operating System
8 CPU, 16GB RAM, 384GB Storage	24-hr service request fulfillment	DB2 Enterprise Edition v9.7.1	Optional MW/DB Monitoring

Package	VM Availability- SLA	Infrastructure Services
Bronze	98.5%	<ul style="list-style-type: none"> <li>32-bit and 64-bit System x – Windows &amp; Linux</li> <li>64-bit System p - AIX</li> <li>Any VM sizes</li> <li>24-Hour Service Request Fulfillment</li> </ul>
Silver	99.5%	<ul style="list-style-type: none"> <li>Includes Bronze Infrastructure Services, plus</li> <li>Selectable location for VM Deployment</li> <li>VM Mobility Support</li> <li>24-Hour Service Request Fulfillment</li> </ul>
Gold	99.7%	<ul style="list-style-type: none"> <li>Includes Silver Infrastructure Services</li> <li>Storage mirroring</li> <li>48-Hour Total Service Request Fulfillment</li> <li>Automated Restart on VM failure</li> </ul>
Platinum	99.9%	<ul style="list-style-type: none"> <li>Includes Gold Infrastructure Services</li> <li>Storage replication across 2 locations</li> <li>72-Hour Total Service Request Fulfillment</li> </ul>

The Per VM Availability SLA applies to each individual VM for the tier which the customer has selected in the IBM Cloud Portal



# Provided reports from the Web Portal

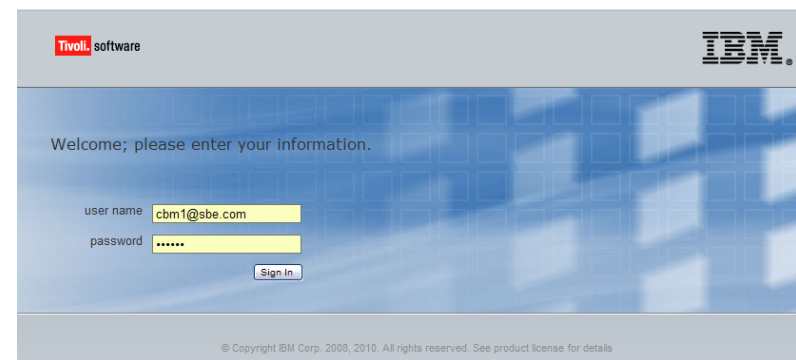
- Service Management Data

- Incident Problem Reports – summary and detail of customer submitted problem reports
- Change Reports - summary and detail of customer initiated and IBM initiated changes to a virtual machine
- Service Activation – performance of non-VM service activation

- Virtual Machines

- Provisioning – performance of VM provisioning
- Software inventory on a virtual machine
- Performance history of a virtual machine

- Usage – itemized and detail information for all SCE+ services



16 May 2006 05:00:28 AM

**Daily Morning**

IBM Global Systems Management Reporting Technology Services

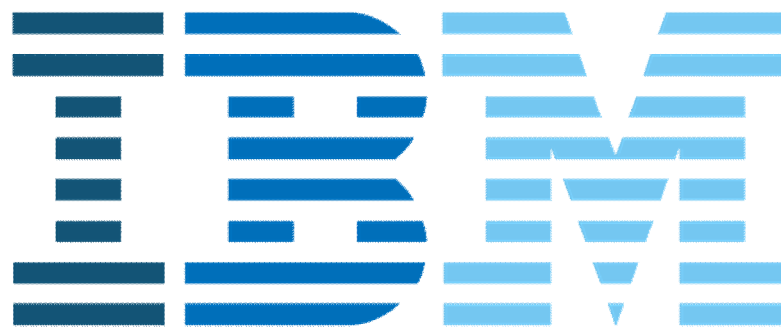
This report displays summary and detail data for all open problem tickets; sorted by account major, account minor and then severity with tickets in a wait state at the bottom of the report.

Account Name	GSMRT US Prototype Account			Total Tickets	203
Ticket Status	Active Tickets			Total Tickets	2
Geography	Asia Pacific			Total Tickets	2
Contact Country	Japan			Total Tickets	2
Severity	3			Total Tickets	2
<b>Ticket Number</b>	<b>01637608</b>	<b>Open Date</b>	08 May 2006 10:34:55 AM	<b>Out Of Criteria</b>	Yes
<b>Status</b>	TRANSFER	<b>Target Date</b>	09 May 2006 10:34:55 AM	<b>Out Of Criteria %</b>	70.00
<b>User Name</b>	ARTHUR, KING	<b>Last Updated</b>	08 May 2006 10:41:10 AM	<b>Current Severity</b>	3
<b>Abstract</b>	Uninstall client access software on selected workstations at San Diego				
<b>Ticket Number</b>	<b>01637610</b>	<b>Open Date</b>	08 May 2006 11:21:41 AM	<b>Out Of Criteria</b>	Yes
<b>Status</b>	OPEN	<b>Target Date</b>	09 May 2006 11:21:41 AM	<b>Out Of Criteria %</b>	63.00
<b>User Name</b>	DOE, JANE	<b>Last Updated</b>	08 May 2006 01:28:14 PM	<b>Current Severity</b>	3
<b>Abstract</b>	Uninstall client access software on selected workstations at San Diego				
<b>Geography</b>	North America			<b>Total Tickets</b>	201

	A	B	C	D	E	F	G	H	I	J	K
1	REPORT DATE:	September 25, 2007 8:53:46									
2	HOSTNAME	MODEL	SERIAL NUMBER	SCANTIME	OS	OS VERSION	PROCESSOR COUNT	SOFTWARE NAME	SOFTWARE VERSION	LICENSE	ACCOUNT
3	AA2393123	IBM 2006M4J	99D975A	2007-06-20 11:0	MICROSOFT WINDOWS XP PROFESSIONAL		5	MICROSOFT OFFICE STANDARD EDITION	10.0.6626.0	LICENSABLE	ACCOUNTBD
4	AA2393274	IBM 2373M4J	99D975N	2006-09-13 11:0	MICROSOFT WINDOWS XP PROFESSIONAL		5	MICROSOFT PROJECT STANDARD EDITION	10.0.2915.0	LICENSABLE	ACCOUNTBD
5	AA2393274	IBM 2373M4J	99D975N	2006-09-13 11:0	MICROSOFT WINDOWS XP PROFESSIONAL		5	MICROSOFT VISIO PROFESSIONAL EDITION	11.0.3216.56	LICENSABLE	ACCOUNTBD
6	IBM-99TWABC	IBM 20000JM	99TWABC	2007-06-20 11:0	MICROSOFT WINDOWS XP PROFESSIONAL		5	IBM WEBSHERE EVERYPLACE CONNECTION MANAGER		LICENSABLE	DISCREPAN





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