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# Managing Red Hat Subscriptions in a Hybrid Cloud Ecosystem

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# Agenda

- Why Use Red Hat Products on a Public Cloud?
- The Hybrid Cloud Ecosystem
- What is the Red Hat Certified Cloud Program and Why Should You Care?
- Consumption Models
- What's Available from Red Hat on Public Clouds?
- Updating your Images on a Public Cloud
- Using a Public Cloud Provider as a Target for OpenShift Enterprise

# Why are Red Hat Customers Using Public Clouds?

- It's where their customers are
  - SalesForce
  - Adobe
  - Ice.com
  - BMC
  - Groundwork
  - Intuit
- Better development experience and results
  - Latest tools, technologies
  - Spin up a VM in minutes, not days
- Business Requirements
  - ROI on public cloud vs acquisition of IT resources
  - M&A



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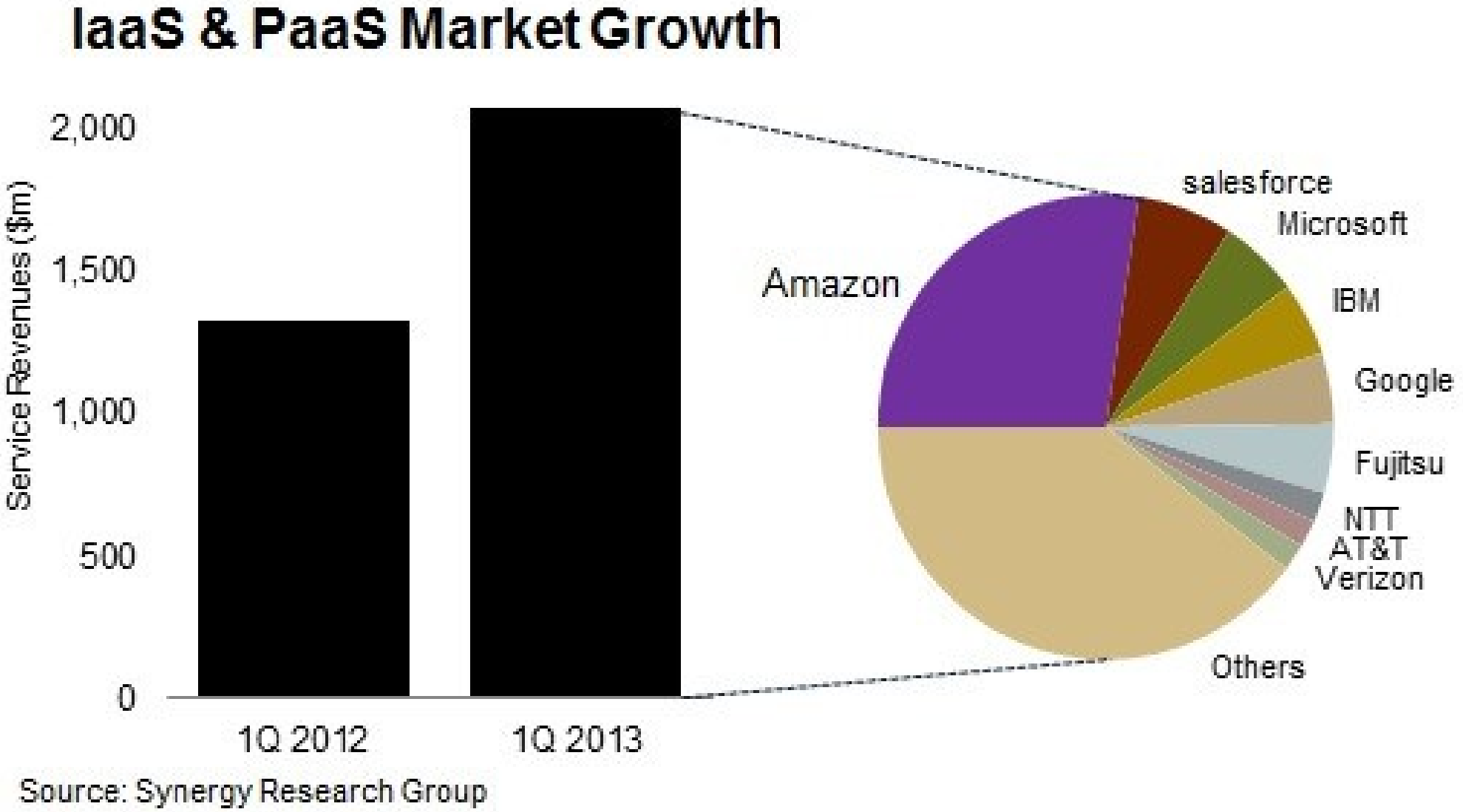
# Did You Know? Public Cloud Revenue in *Q1 2013* Was $2B




5/30/13, http://gigaom.com/2013/05/30/surprised-cloud-providers-bring-in-2b-in-first-quarter/



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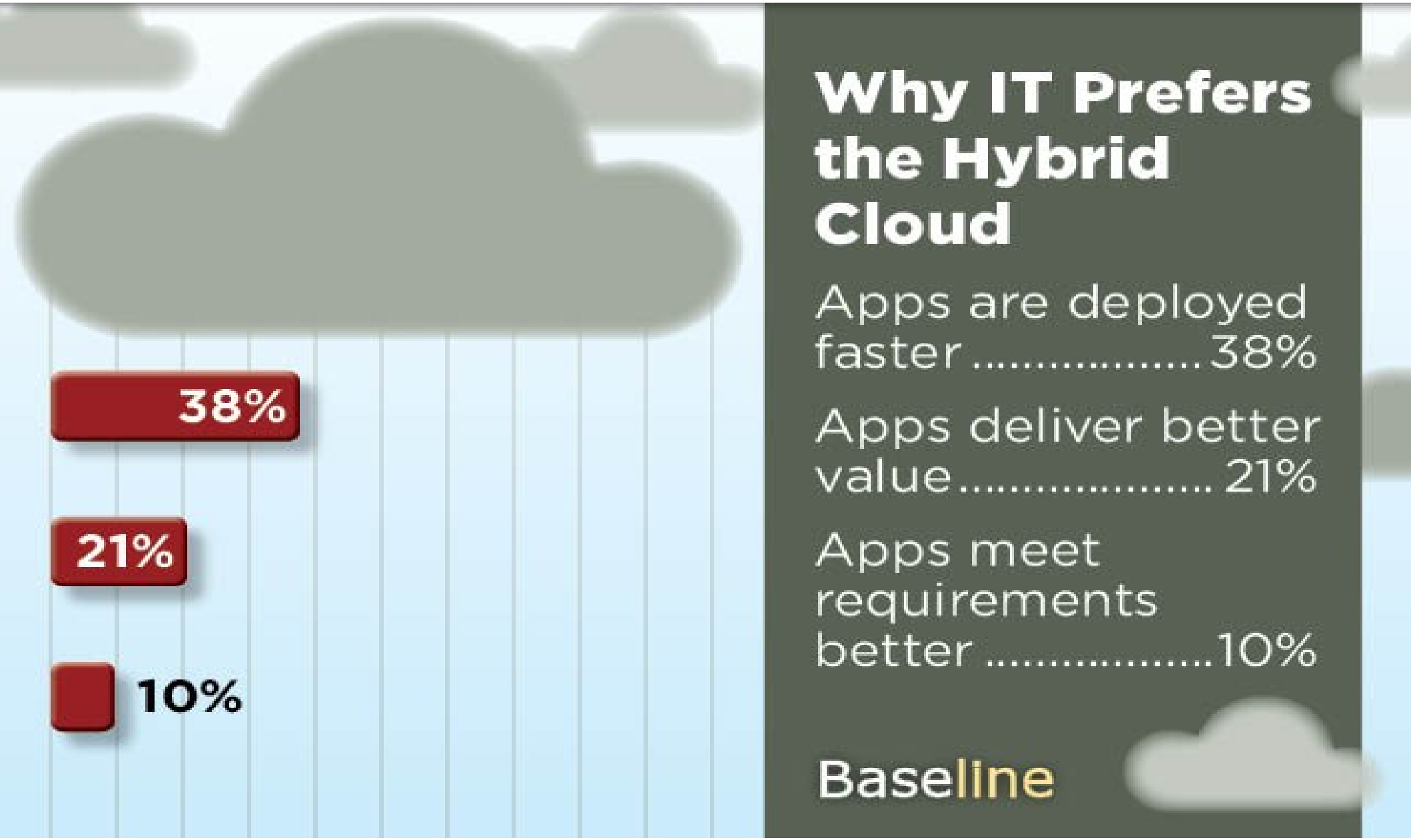


Baseline, 5/3/13, http://www.baselinemag.com/cloud-computing/slideshows/why-the-public-cloud-is-driving-it-pros-crazy/

# Representative Red Hat Customers Using Public Clouds

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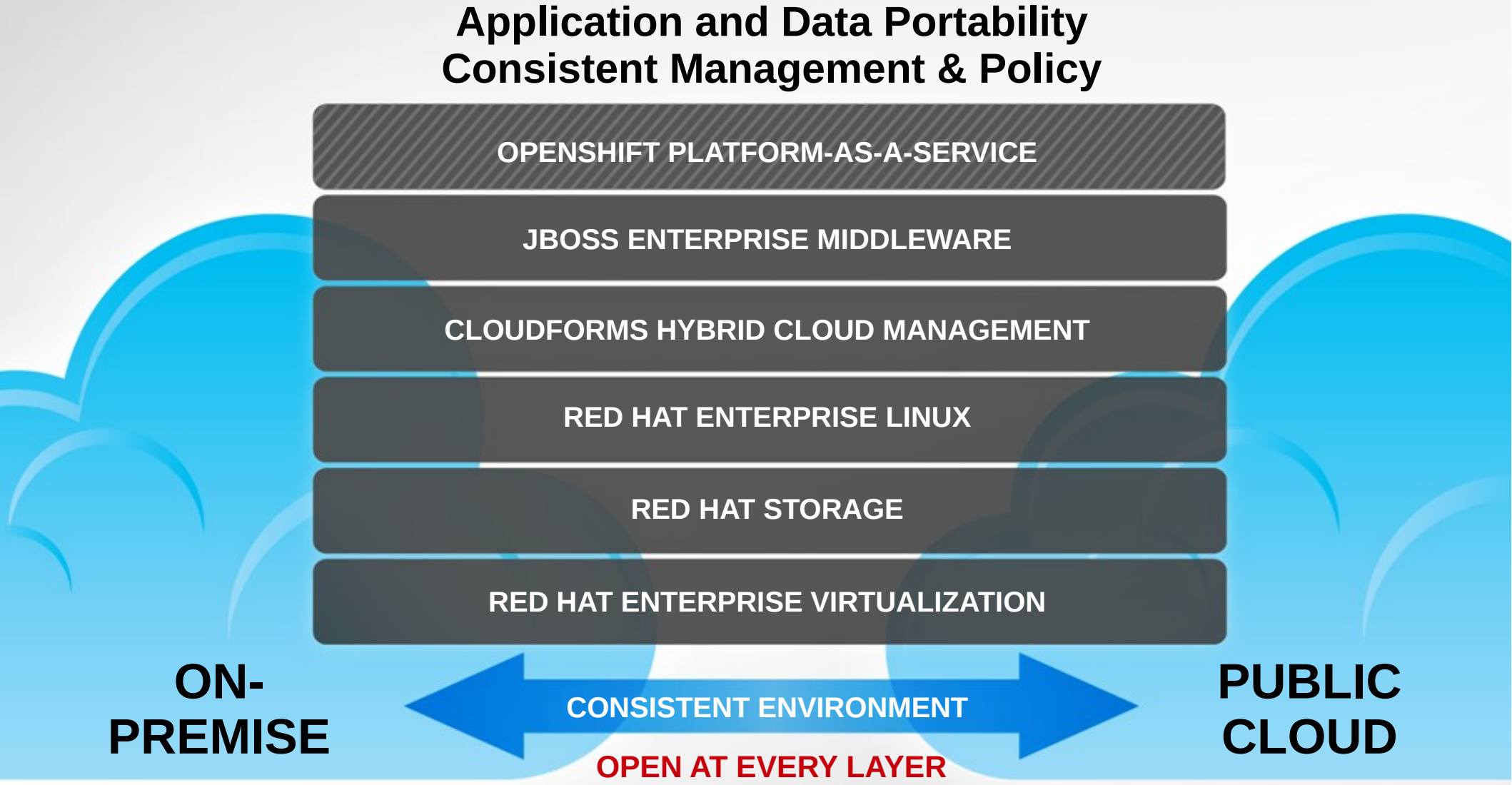
# Red Hat's Ecosystem for Hybrid Clouds Includes CCPs



Baseline, 5/3/13, http://www.baselinemag.com/cloud-computing/slideshows/why-the-public-cloud-is-driving-it-pros-crazy/

# Red Hat Certified Cloud Provider Program

- Confidence to run certified applications in public clouds
- Access to a broad ecosystem of enterprise-quality proven Cloud Providers, enabling choice across business and service levels
- Promise of the highest levels of security, scalability, and management
- Consistent Red Hat technology between cloud and on-premise
- Enterprise support from cloud providers, backed by Red Hat
- Cloud Access - Portability of subscriptions between on-premise and cloud models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# Red Hat Certified Cloud Providers Ensure Stability and Consistency

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# Representative Red Hat CCP Partners

Complete listing at https://www.redhat.com/open-hybrid-cloud/public-cloud/find-partner/



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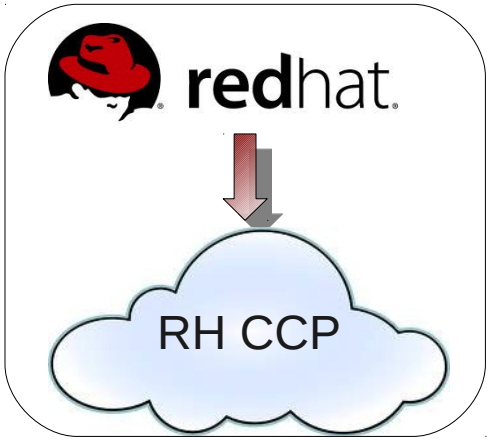
# Red Hat Public Cloud Consumption Models

- Bring Your Own Subscription
  - Cloud Access
  - Image Import
- On Demand
  - Pay by the drink
  - Available in Monthly and Hourly consumption models



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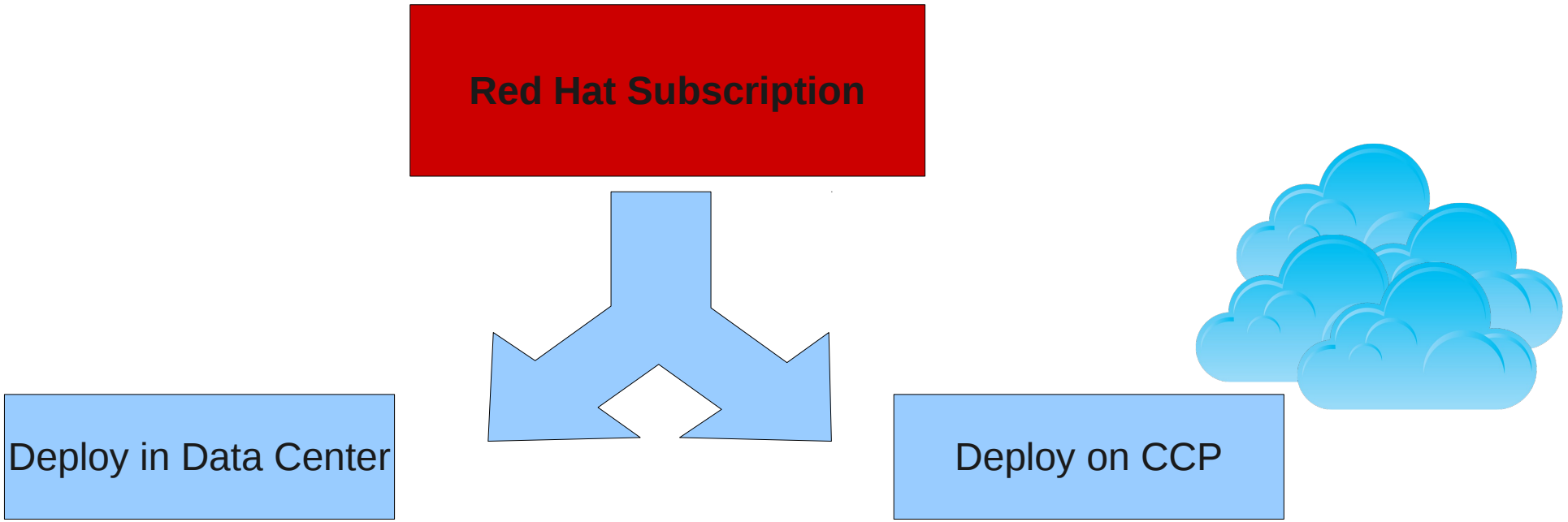
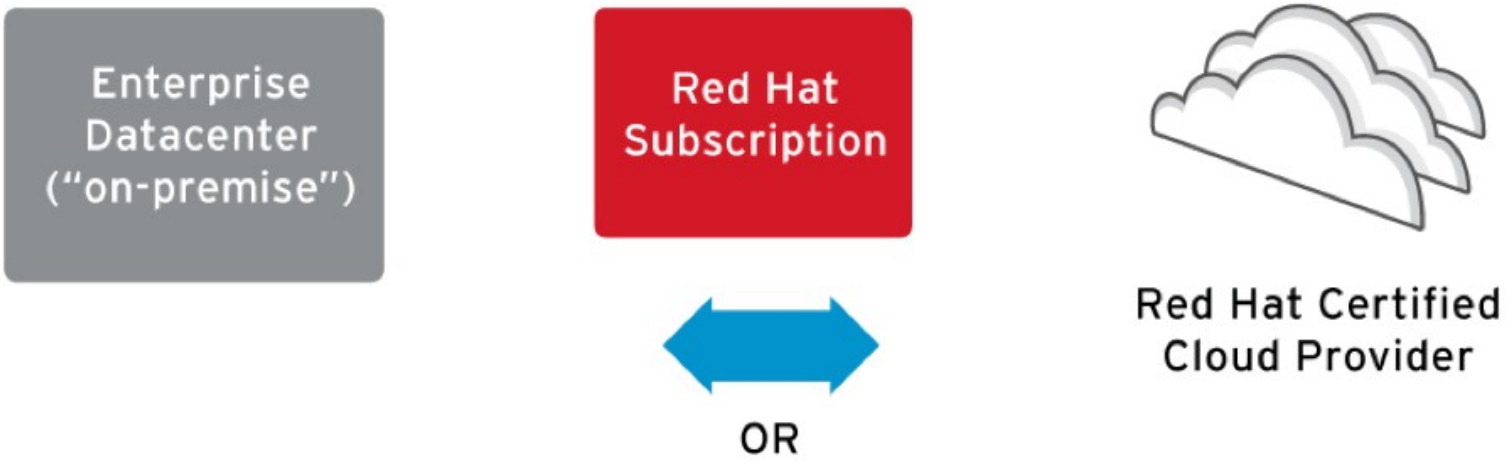
# What is Red Hat Cloud Access?

**A feature of some Red Hat subscriptions, permitting customers to use their subscription on Red Hat Certified Clouds**



# Cloud Access Provides Consistency Across a Hybrid Cloud Environment




- Update consistency
- Support consistency
- ISV certifications consistency

# Consumption Models Explained

| | Cloud Access | On Demand |
|---|---|---|
| **New VMs** | Certification ensures “RHEL is RHEL.”<br>• Similar to fresh install from ISO (plus RHN registration)<br>• yum update / yum install “just work”<br>• SELinux enabled<br>• iptables firewall on | |
| **Support** | You engage Red Hat support as usual. | You call CCP for all support issues, backed by Red Hat global support services. |
| **Billing** | CCP bills you for resource consumption (CPU, memory, storage, network, etc.) *only*. | CCP bills you for resource consumption *and* Red Hat products. |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# Which Consumption Model is Right for You?

- Choose On-Demand When You...
  - Have a good estimate or ROI on all public cloud resources
  - Have a short term development project that will move back on-premise
  - Are moving to a SaaS model (software providers)
  - Need tools and platforms that aren't available in your own dev/ops groups

- Choose Cloud Access When You...
  - Want to use existing or new annual subs on a public cloud
  - Have long term or production needs on public clouds
  - Must use your company's certified image
  - Want support directly from Red Hat


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# How Does Cloud Access Work?

1. Read the eligibility rules on redhat.com
2. Complete an online registration form
3. If an AWS user, Red Hat will place private AMI's in your AWS account(s) for the product you want to use on AWS
4. If a user of another CCP, then upload your image via the CCP's import tools
5. Begin using your Red Hat products on the CCP of your choice


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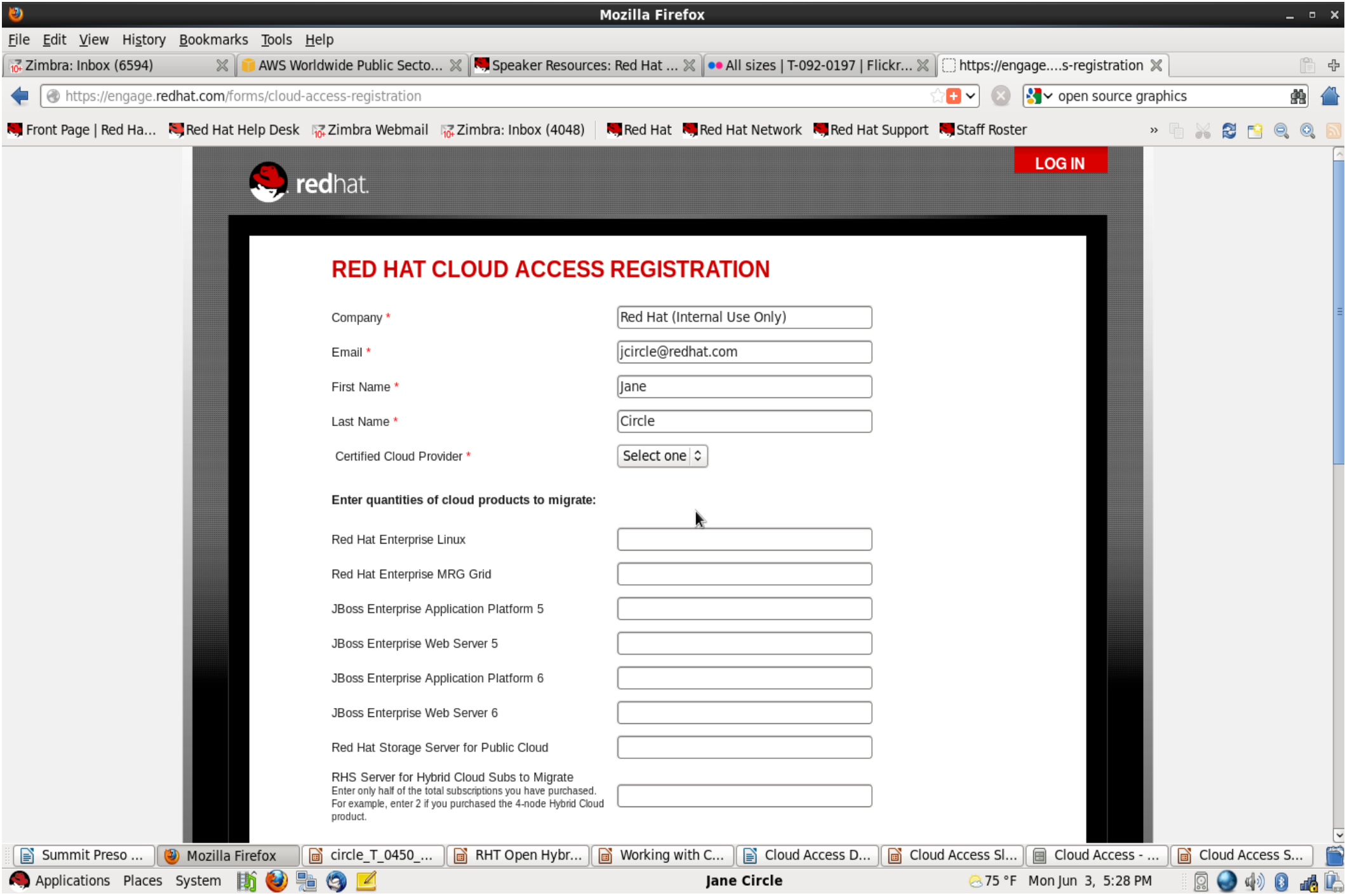
# Cloud Access Registration Form



# Translating Physical to Virtual

- Red Hat Enterprise Linux
  - 1 system – 1 virtual instance, any size
- JBoss
  - 1 core – 1 virtual core
- Red Hat Storage
  - Already sized for the cloud, 1 virtual guest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# Cloud Access Benefits

- You maintain your direct relationship with Red Hat
  - Terms and conditions of your subscription still apply
  - Support continues to come directly from Red Hat
- Automatic Updates to your images on a CCP
- If you prefer, you can get updates from Red Hat via Satellite or RHN Hosted


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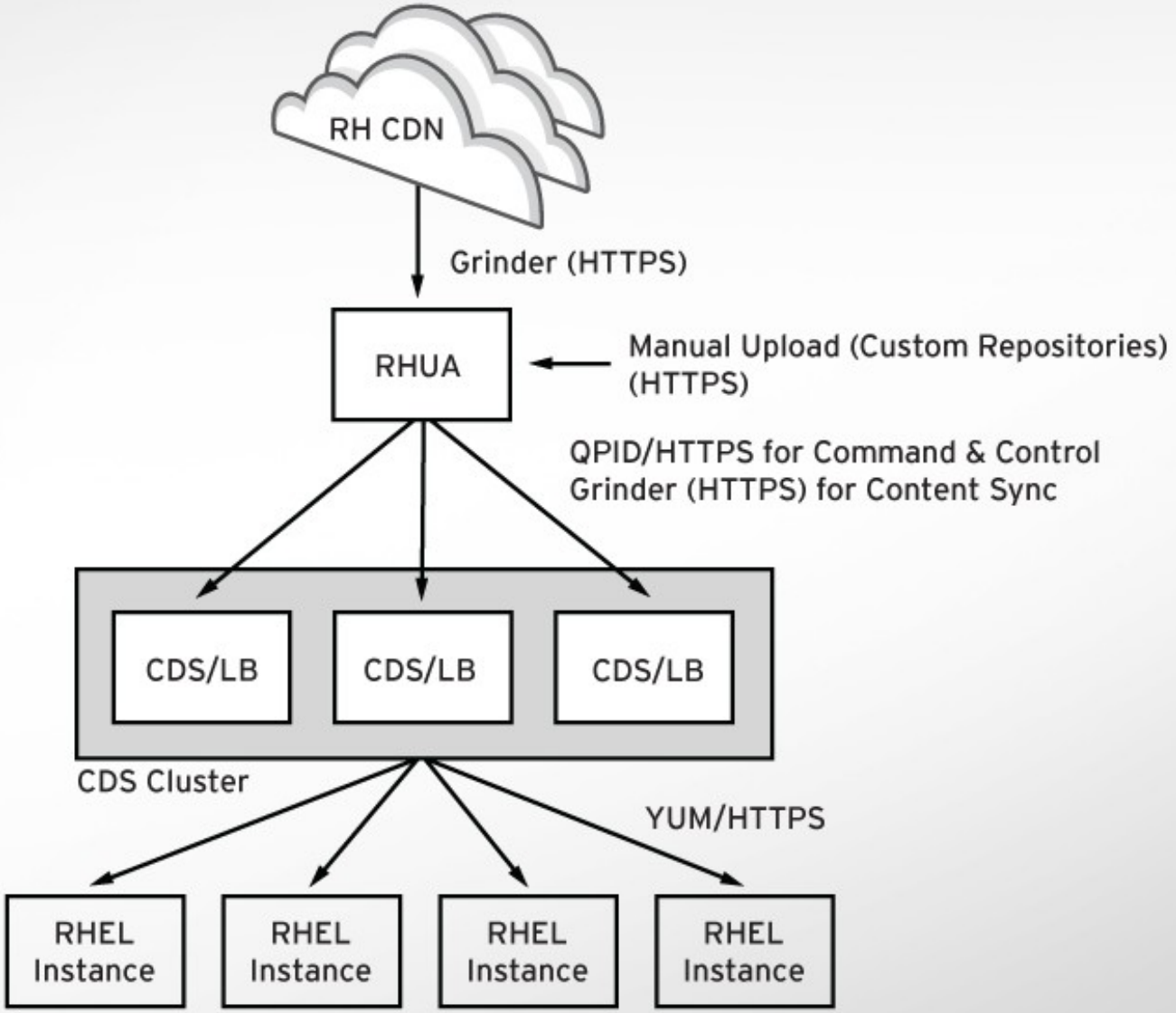
# Updating Your Red Hat Images on a Certified Cloud

- Red Hat Update Infrastructure
  - “RHN in the Public Cloud”
  - Immediately available and transparent to you
  - Run yum update on instantiation of a new vm
  - Makes all updates and errata available at cloud scale

# RHUI Architecture



# Updating your Images via Satellite or RHN

1. Spin up a starter image.

2. Find your active repository: grep 'enabled=1' /etc/yum.repos.d/redhat-{eu-west,us-east,us-west}.repo

3. Edit the appropriate /etc/yum.repos.d/redhat-{eu-west,us-east,us-west}.repo based on the results from step 1 and change 'enabled=1' to 'enabled=0'

4. Edit /etc/yum/pluginconf.d/rhnplugin.conf and change 'enabled=0' to 'enabled=1'

5. RHN register with rhn_register or rhnreg_ks

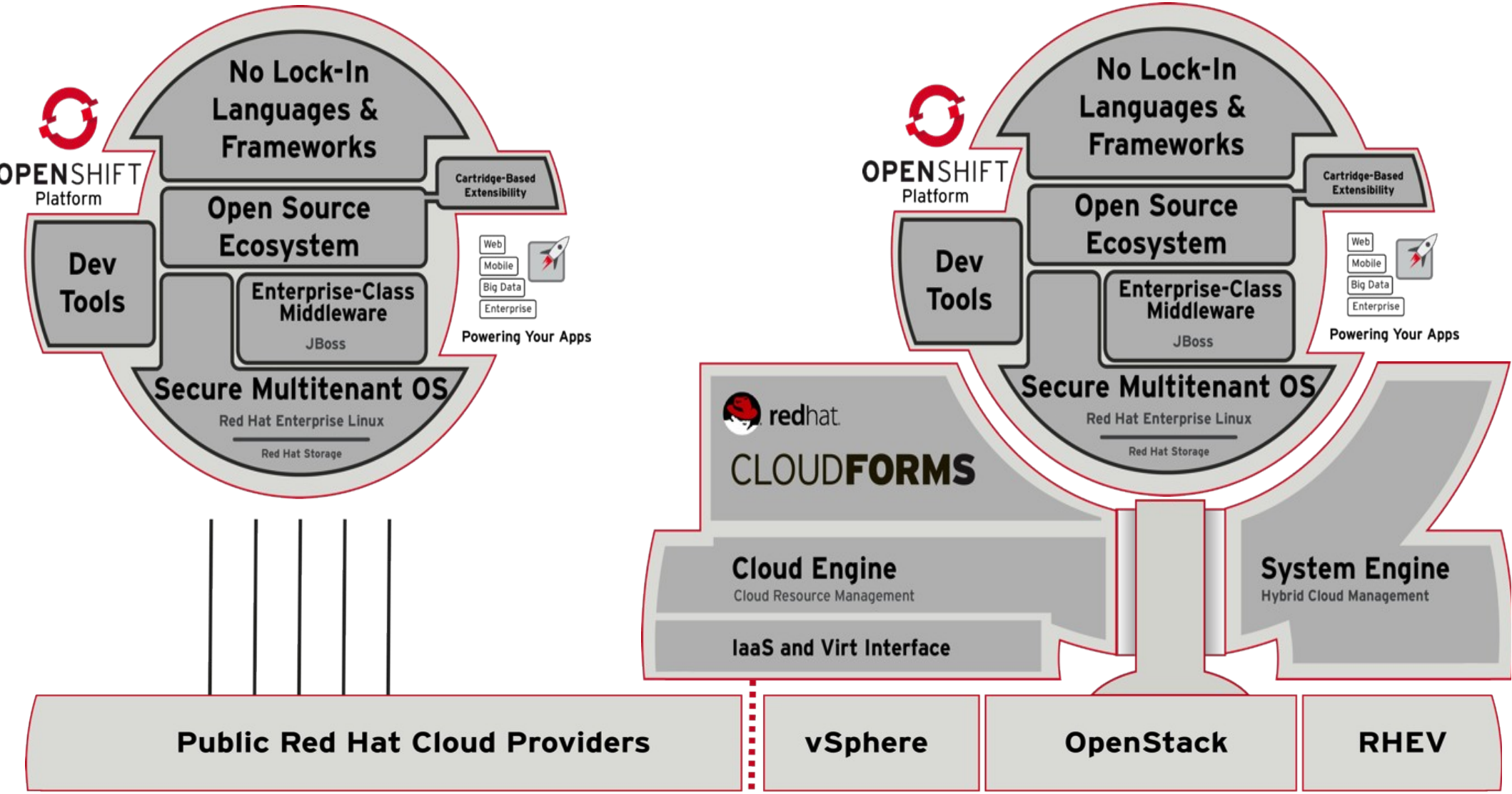
6. Run yum to your heart's content

WARNING: You will incur network charges from your cloud provider when using RHN since it is outside the cloud. One of the advantages of RHUI is that the network traffic stays inside the cloud)

# What Red Hat Products are Available on Red Hat Certified Public Clouds?

- All Certified Cloud Providers
  - Red Hat Enterprise Linux 5 and 6 On Demand
- AWS Only
  - RHEL 5 and 6 On Demand or Cloud Access
  - RHEL 6.4
    - For AWS, includes Cloud Init integration and HPV instance size (HPV needed for XL size)
  - Red Hat JBoss EAP and EWS via Cloud Access
  - Red Hat Storage for Public Cloud and Hybrid via Cloud Access

# Using a CCP As a Target for Red Hat OpenShift Enterprise



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# Useful Links

- Finding a Red Hat Certified Cloud Provider
  https://www.redhat.com/solutions/cloud-computing/public-cloud
- Information about Cloud Access
  http://www.redhat.com/solutions/cloud/access/
- RHEL Images Available on AWS
  https://aws.amazon.com/solutions/global-solution-providers/redhat/
- Updates from RHN
  https://access.redhat.com/site/solutions/44250
  - Note: This article refers to VPC's, since they may or may not be required if you are using RHN or Satellite for updates