

Current State of Affairs - Cloud Computing

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Introduction

- Chirag Jog
- CTO, Clogeny Technologies
- Working on some cutting-edge Products in Cloud Computing space
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Cloud Computing – Future?

Gartner's Cloud Computing Outlook 2011

\$112 billion

is what enterprises will spend over the next six years cumulatively on cloud-related technologies such as SaaS, PaaS and IaaS



CIO INSIGHT



What makes Cloud Computing Cool?

Gartner's Cloud Computing Outlook 2011

Key characteristics of "as-a-service" cloud technologies:

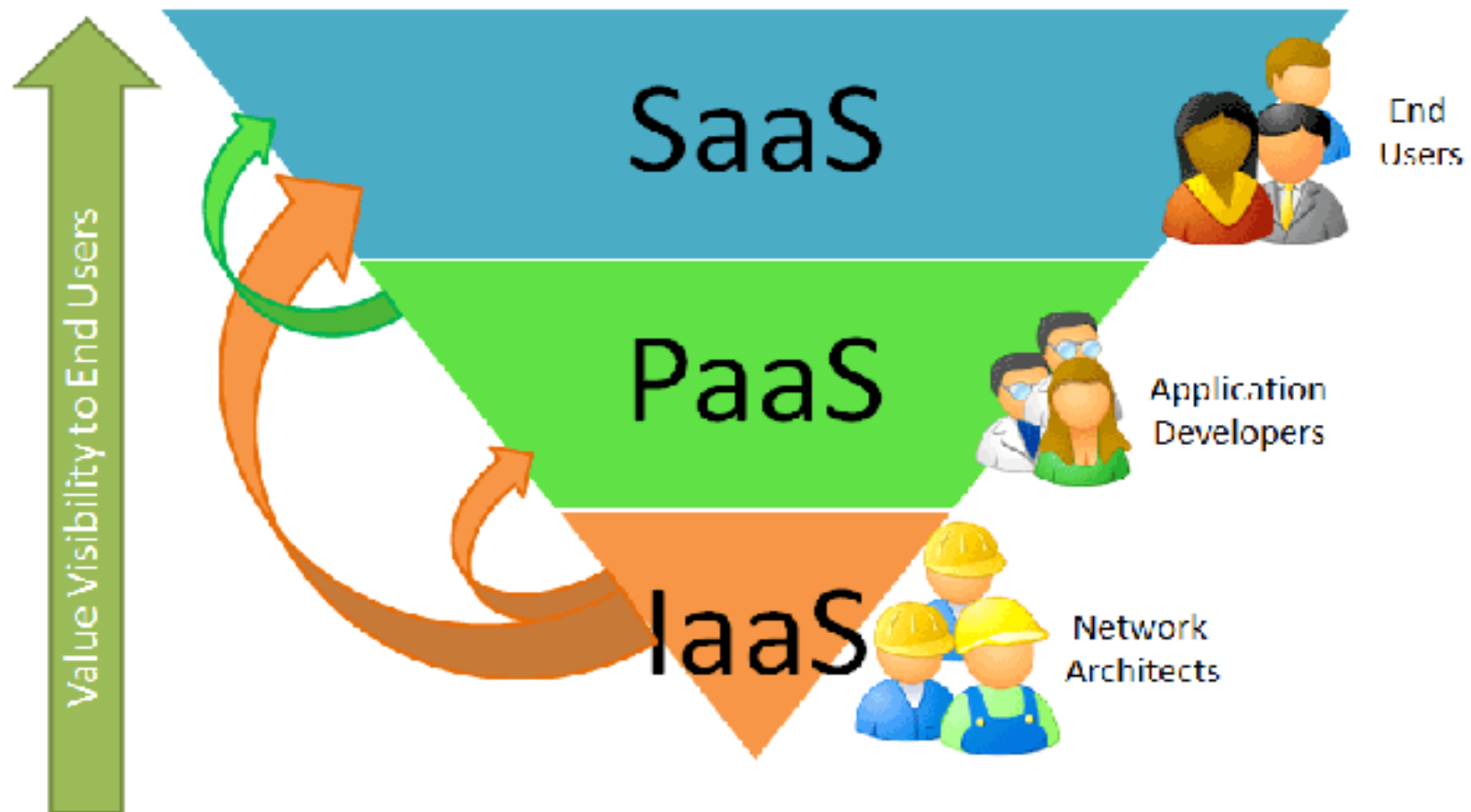
- Pay as you go/use
- Turn on/turn off as you wish
- Multi-tenant and not simply an outsourcing of apps



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Some Basics



Current State of Affairs - Cloud Computing

- 2011 - Year of the PAAS!
- Private Clouds
- Amazon Riding High.
- Interesting Startups.
- Summary.



Platform As a Service

- Easy Application Deployment
- Without worry about underlying Hardware or Software
- Auto-managed environment - Elastic, Secure.
- Support the Complete life cycle of building and delivering “applications” or “services”.
- Visualization tools



Platform As a Service - 2011

- Paradigm Change in the definition of PAAS.
- Existing Solutions:
 - Google App Engine, Force.com

VS

- Java Deployment Platform as a Service.
 - Vmware's CloudFoundry
 - Redhat's OpenShift
 - DotCloud.com
 - And Amazon's Elastic Beanstalk



2011 - Year Of the PAAS!

- What is Platform as a Service?
 - 2010 Definition
 - Develop Application using provided SDK.
 - Tightly coupled Stack.
 - Lack of Flexibility.
 - Existing Applications cannot run as-is
 - No Control of Database !!
 - Language Limitations
 - Vendor Lock-Ins !

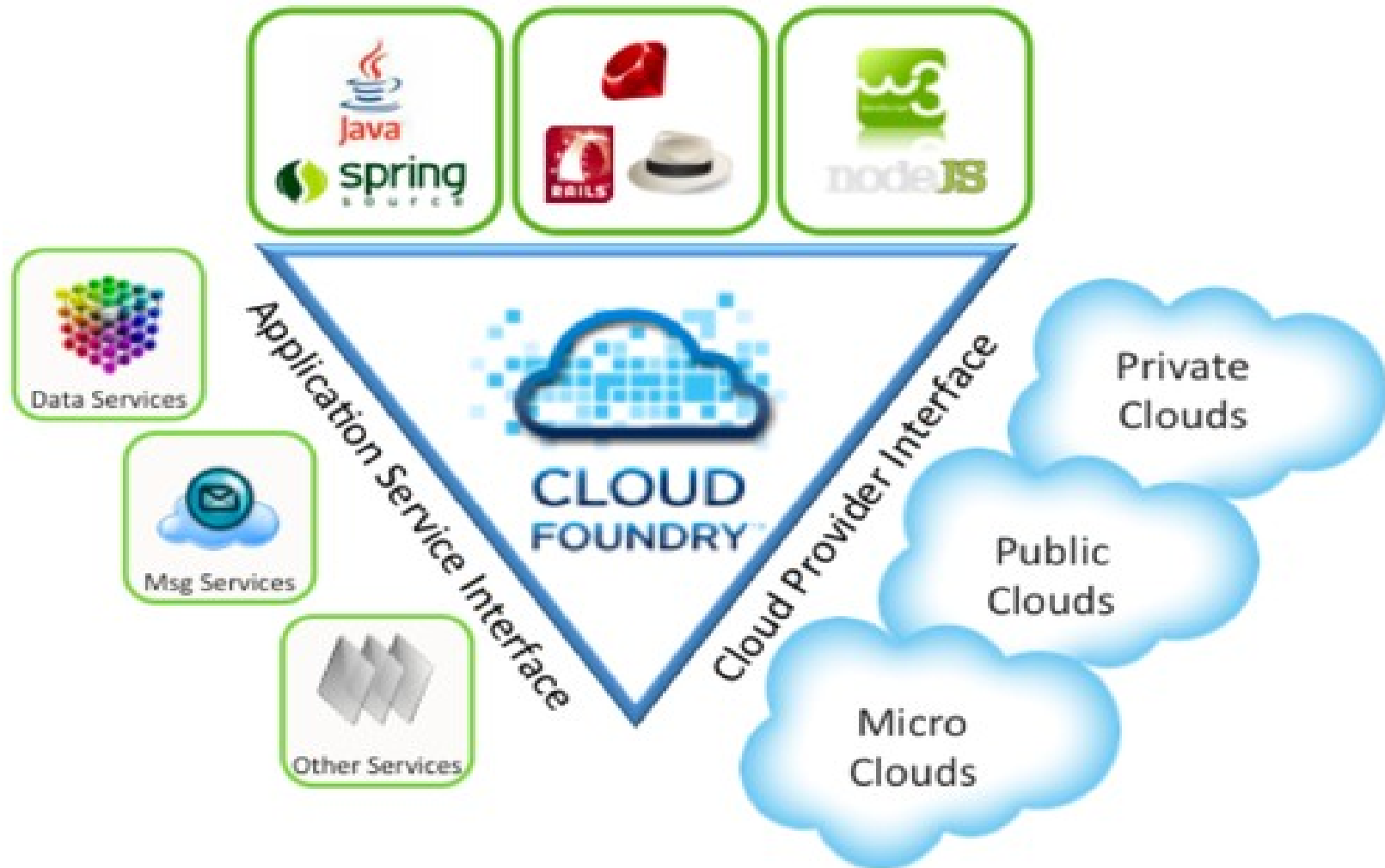


2011- Year Of the PAAS!

- What is Platform as a Service?
 - 2011 Definition
 - Bring you Application and we will host it.
 - Choices of frameworks
 - Choices of application infrastructure services
 - Choices of deployment clouds
 - Private Cloud Support
 - Java EE, Python, node.js, Ruby and many more.



Cloud Foundry

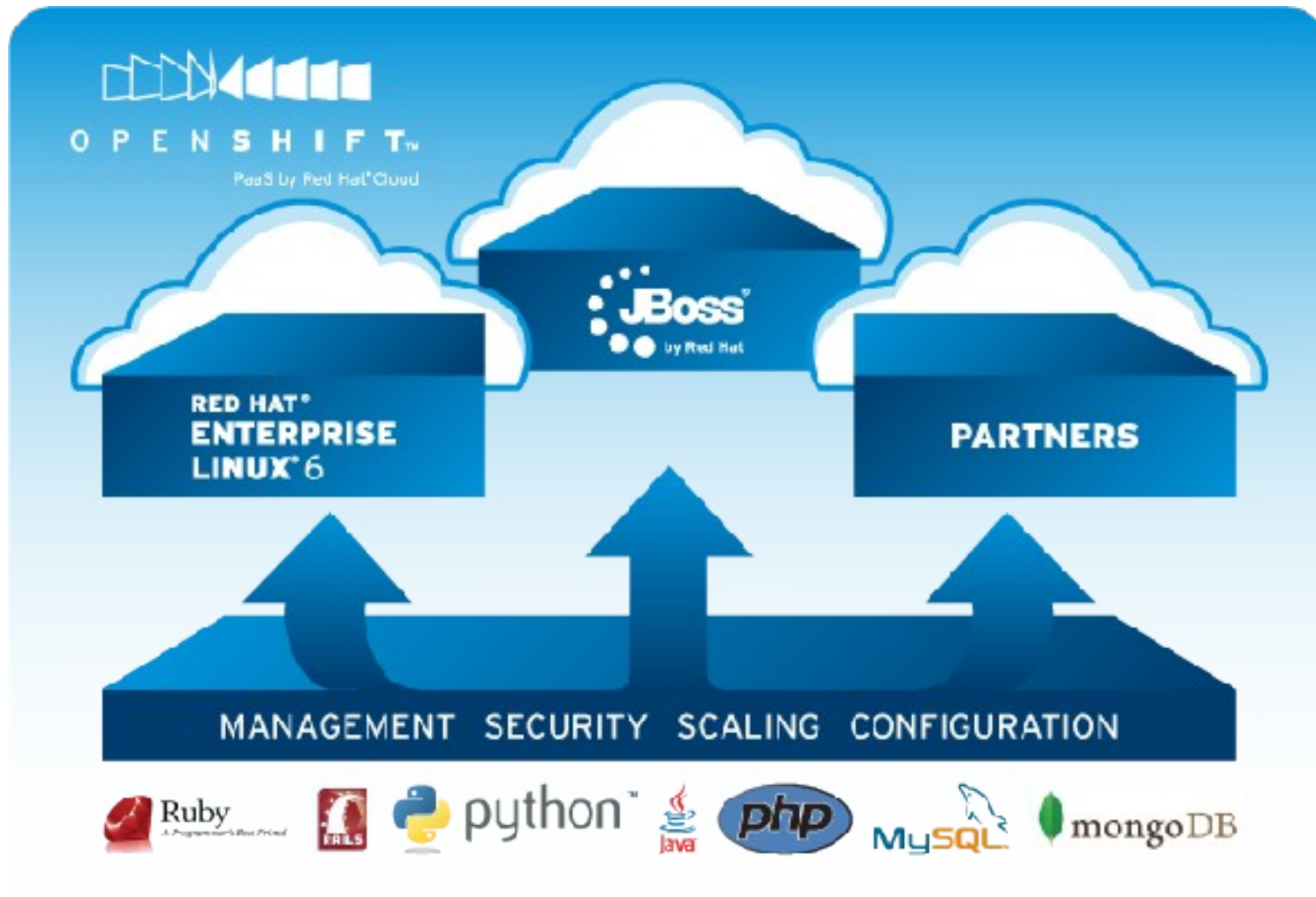


Vmware Cloud Foundry

- Open – Platform as a Service
- Spring (Java), Rails and Sinatra (Ruby), Node.js
- MongoDB, MySQL and Redis
- CloudFoundry.com – hosted PAAS
- CloudFoundry.org – Open Source project
- Micro Cloud – Personal PAAS !



OpenShift by Redhat



OpenShift by Redhat

- EXPRESS - deploy new and existing Ruby, PHP, and Python applications in the cloud for free.
- FLEX - free PaaS for new and existing JBoss, Java EE6, and PHP applications
- POWER - Deploy applications to the cloud that are written to Linux (i.e. written in C, or using many binary components),



Cumulogic/CloudBees

- Bring your Application (war/ear).
- Choose your Cloud (Private/Public)
- Choose the Application Stack of your choice.
- Host the application.
- Use the same tools you would normally use for a traditional Java EE middleware deployment.



DotCloud.com

\$10 Million in Funding !!!

- Build and Deploy Applications.
- Provisioning, configuration, monitoring, backups, scaling and more.
- Support all the tiers required for hosting an application.
- Wide support for all languages, frameworks, databases, caching systems.



DotCloud.com

\$10 Million in Funding !!!



PaaS Appliances

- Oracle's ExaLogic Elastic Cloud
- IBM's Workload Deployer
(previously known as WebSphere
CloudBurst Appliance)



Private Clouds

- Open Stack
 - the "Linux for the cloud" project
 - Rackspace and NASA's Open Source Cloud collaboration.
 - DELL, Cisco and Citrix support.
 - Replaces Eucalytus for Ubuntu's Enterprise Cloud.



Amazon Riding High

- Amazon continues innovation !
 - Amazon Elastic Beanstalk.
 - Amazon Cloud Formation.
 - Dedicated Instances .
 - Oracle and SAP support.
 - Simple Email Service - (SES)



Amazon Elastic Beanstalk

- Next generation PaaS.
 - capacity provisioning,
 - load balancing,
 - auto-scaling,
 - application health monitoring
- EC2, S3, Simple Notification Service, Load Balancing and AutoScaling.
- Tomcat 6 and 7 Environment



Amazon Cloud Formation

- Templates to design AWS resources.
- Define and Deploy a stack (resource set) in simple JSON format.
- Interconnect multiple AWS resources in concert.
- Easily manage and load the resources.



Dedicated Instances

- Amazon VPC adds Dedicated Instances.
- Launch instances on hardware dedicated to a single account.
- Physical isolation
- Pay an extra \$10 per hour



Oracle and SAP support

- RDS support for Oracle.
 - Simplify database provisioning
 - Offload common administrative tasks
 - Automated Backups , restores, patching and hardware scalings.
- AWS EC2 Support for SAP.
 - SAP Rapid Deployment.
 - SAP Business Objects.



Simple Email Service – (SES)

- highly scalable and cost-effective bulk and transactional email-sending service
- eliminates the complexity and expense of building an in-house email solution or licensing, installing, and operating a third-party email service
- Built in feedback loops
- Helps businesses improve the quality of email communication



In Other News - Salesforce

- Salesforce releases its datastore service – database.com
- Core component of force.com
- Cloud Database – auto elastic, secure and backed up
- APIs support – REST, SOAP and Oauth.



In Other News - Google

- Google launched their S3 like “Google Storage for Developers”
- Fast, Scalable and Highly Available
- RESTful and Oauth 2.0



Interesting Startups

- SOASTA – Cloud Testing
- PiCloud – Seamlessly leverage AWS through Python code.
- Apigee – API Management Platform
- Loggly – Logging as a service.
- ServerDensity, New Relic – Cloud Server monitoring and alerting .
- CloudPassage – security SaaS



Summary and Conclusion

- Cloud Computing no longer a hype.
- Paradigm shift in PaaS.
- Lots of Flux.
- Lots of new Players.
- IaaS offerings have matured.

