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# Why the Cloud must be Open

Michael Karasick

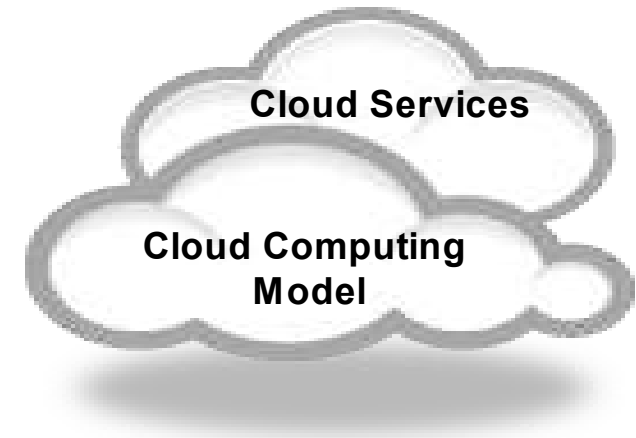
Vice President, Technical & Business Strategy, IBM Software Group

Brussels – June 10th, 2010



# Cloud: a New Consumption and Delivery Model

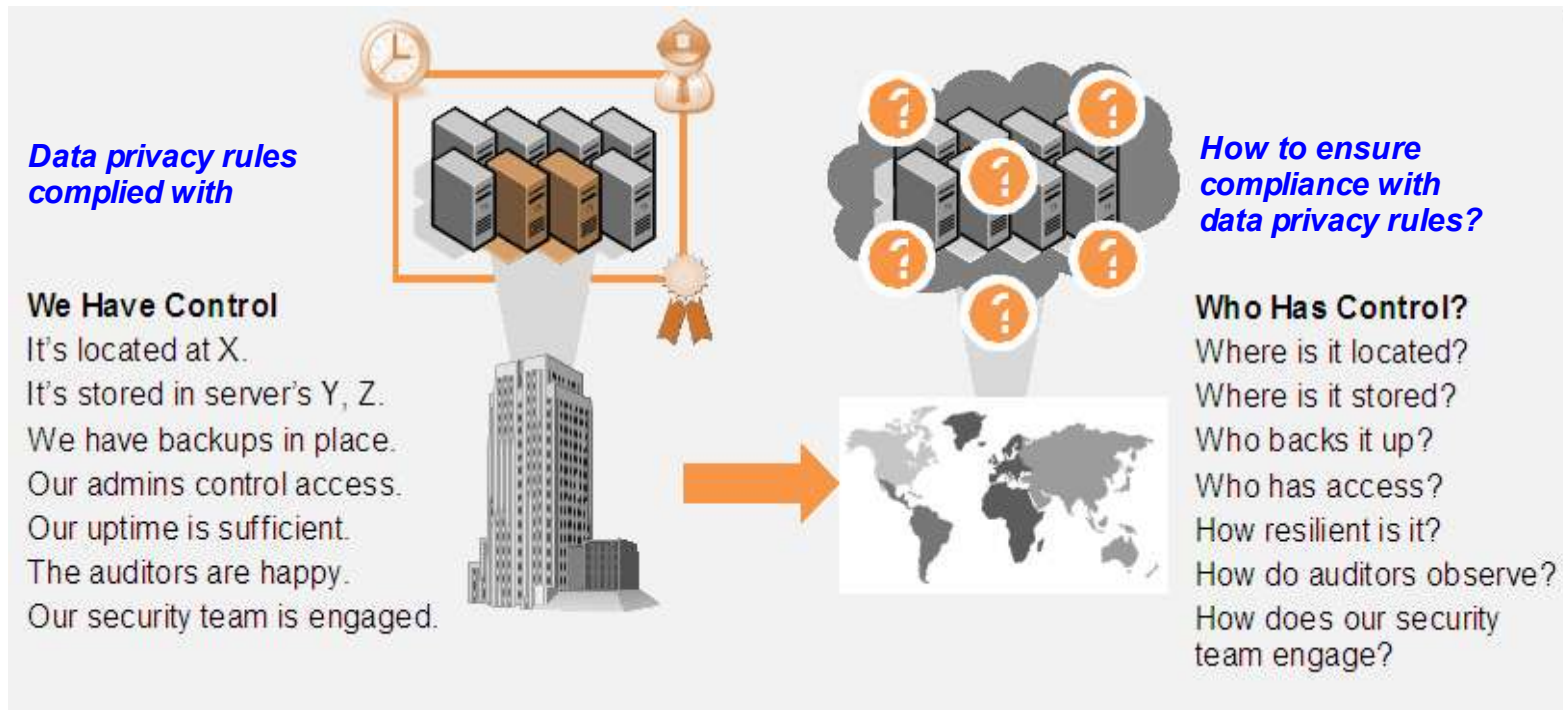
- **“Cloud” is a new consumption and delivery model** inspired by consumer Internet services.
- **Cloud enables:**
  - Self-service
  - Sourcing options
  - Economies-of-scale
- **“Cloud” represents:**
  - The **Industrialization of Delivery** for IT supported **Services**
- **Multiple Types of Clouds will co-exist:**
  - **Private, Public** and Hybrid
  - **Workload** and / or **Programming Model** Specific



# Cloud Computing and Security

## Today's Datacenter

## Tomorrow's Public Cloud



**People and identity**



**Application and process**



**Data and information**

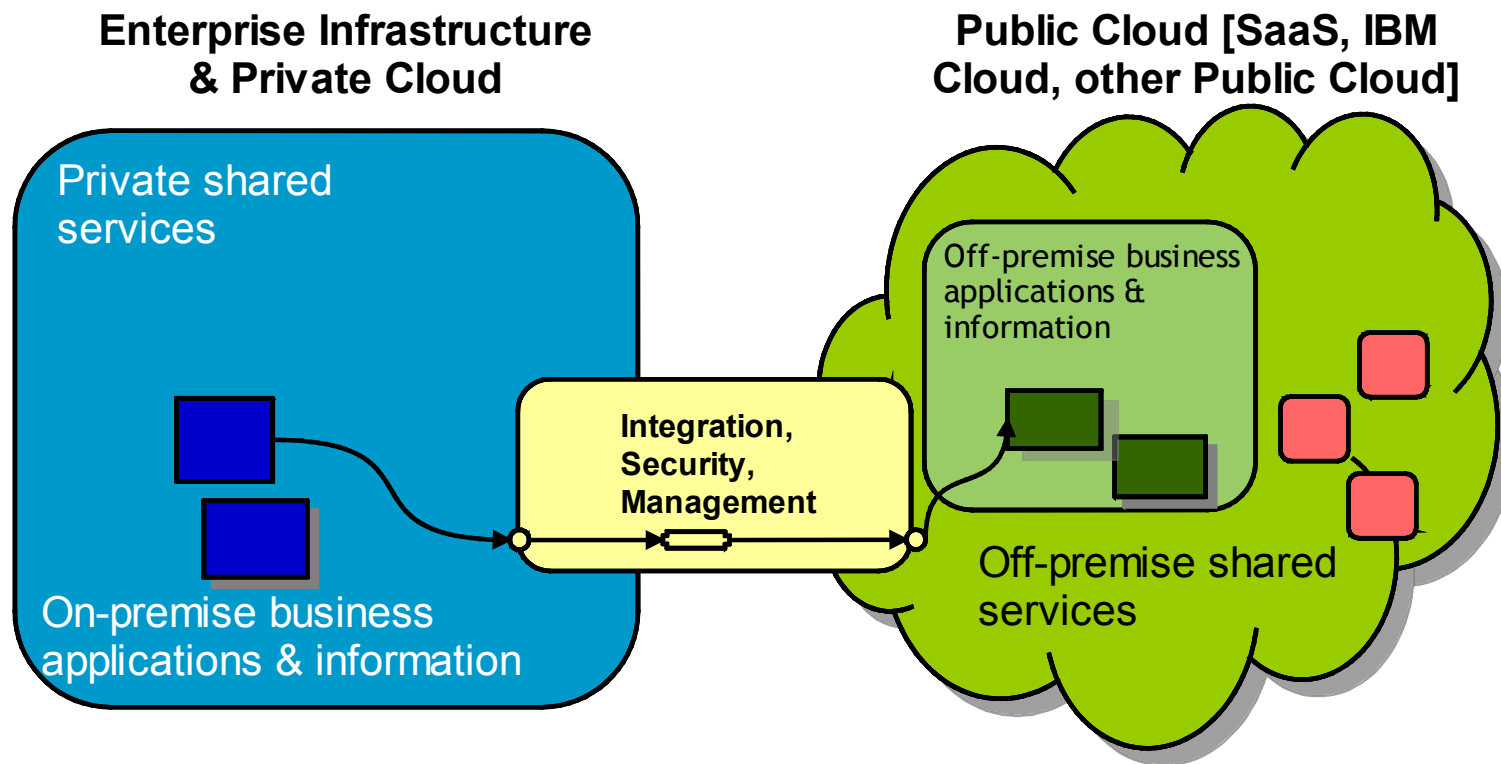


**Physical infrastructure**



**Network, server and end point**

# Connecting, Managing and Securing Hybrid Clouds



**Workflow**  
Manage the process for approval of usage



**Monitoring**  
Provide visibility of performance of virtual machines

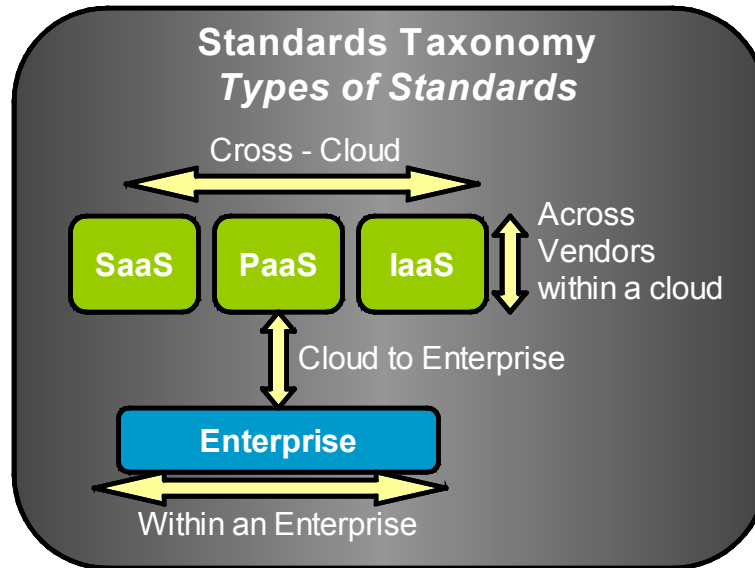


**Provisioning**  
Automate provisioning of resources



**Metering and rating**  
Track usage of resources

# Cloud Computing and Open Standards

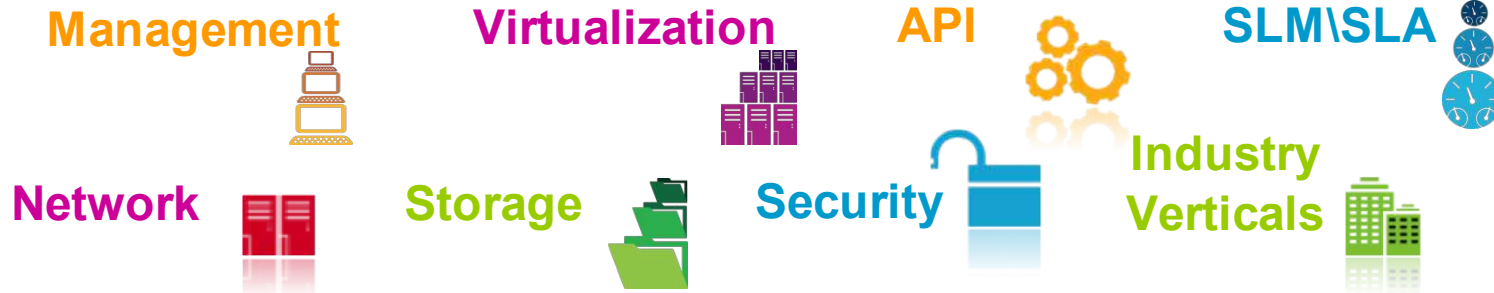


**Standards address inhibitors to cloud adoption including security, vendor lock-in and portability.**

**Recognize that cloud standards are emerging throughout the market, within IT and other industries.**

**Standards should be open, have long term stewardship, have code to back them, and be widely adopted.**

Source: Cloud Computing Use Case Group  
[www.cloudusecases.org](http://www.cloudusecases.org)



# Open Cloud Initiatives

## ▪ **Open Cloud Manifesto**

- Initiative to begin the conversation about Open Clouds
- Launched Spring 2009, now over 300 supporters
- Defined six Principles of an Open Cloud

## ▪ **Cloud Computing Use Cases**

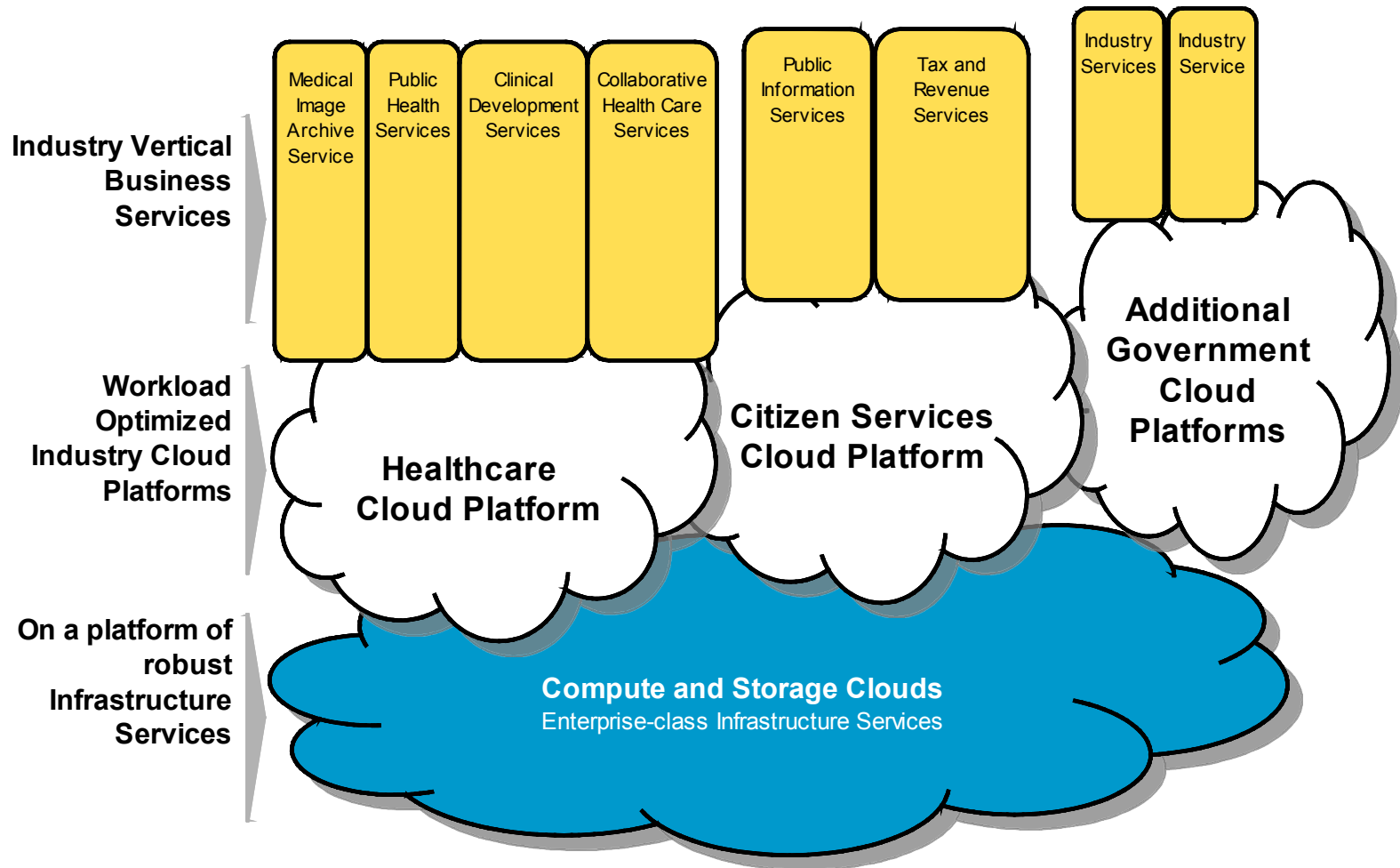
- Joint project between cloud consumers and cloud vendors to define and document common cloud use cases
- Ongoing since 2009, builds on the Open Cloud Manifesto
- Version 3.0 of white paper covers how customers use the Cloud, how applications are built in the Cloud, and security in the Cloud -

## ▪ **Simple Cloud API**

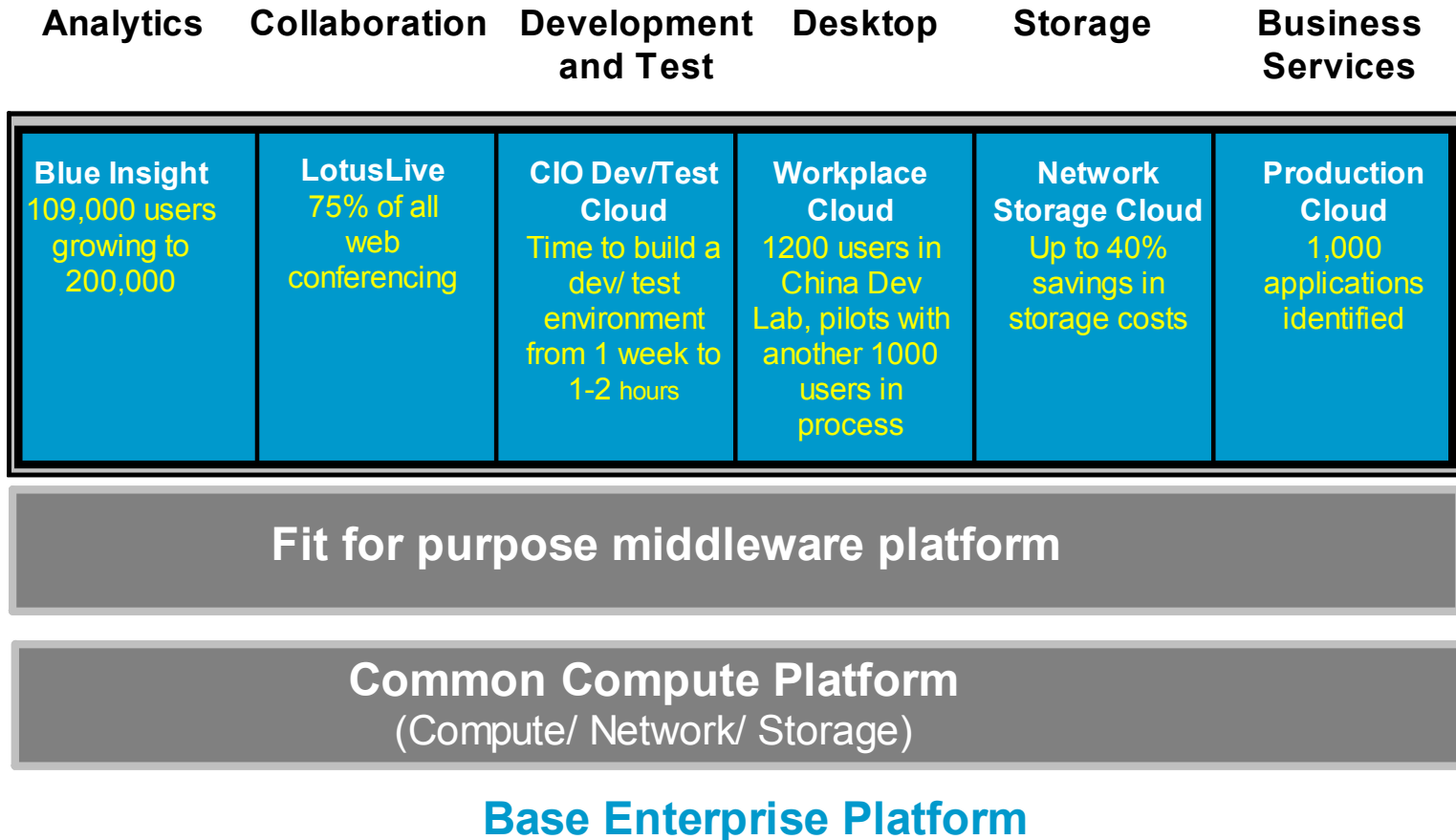
- Common API to enable developers to invoke services across clouds
- Launched September 2009, co-founders include Zend, IBM, and Microsoft
- Initial common interfaces for File Storage Services, Document Storage Services, and Simple Queue Services



# Cloud Computing and Government Transformation



# Cloud Computing Workload Examples from IBM





## In Summary...

- **A standards policy should be in place – the EU and governments have an important role to play**
  - Standards are emerging – focus on selection criteria rather than standards themselves
  - Collaboration between SDO's and providers crucial to accelerate development
  - Cloud standards must be open
  
- **Privacy and Security issues are real but problems can be addressed through already available processes and assets**
  - Avoid the creation of reactionary policies
  - Oppose rules that shift liability for hacking of government systems onto private vendors or operators
  - Update any existing laws on hacking into computers to increase penalties for hacking into advanced data centers or cloud environments