



Interoperability: It's not the API

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- **The logical concepts:**
 - What are the cloud abstractions that cloud users demand
 - How do we refer to those abstractions

- **Our definition of Interoperability:**
 - The translation between the abstractions supported by different clouds independent of how they are referred.

The Analogy

- **Simply put:**
 - The API is the language
 - The abstractions are what we are talking about
- **Our prediction:**
 - Convergence on a set of abstractions without which any cloud will be useless.
- **What then?**
 - When the abstractions are hardened, we can standardize

- **Public Clouds**

- support a core set of abstractions
- using different APIs
- There are differences, and understanding which of the differences should be supported universally is important, but also ongoing

- **Don't worry**
 - The demand for cloud computing will define the “must have” abstractions.
 - Convergence of clouds to define a similar set of abstractions is happening now.

- **Points to consider**

- Cloud users need to drive the standards process.
- Is there a conflict of interest for any cloud provider associated with a standards defining effort?

- **We are Eucalyptus**
- **Open source cloud computing platform**
 - architected to be agnostic with respect to API
 - extensible with respect to the abstractions it supports.
- **The original goal as a University research project**
 - to foster convergence upon a common universal set of cloud abstractions by the cloud computing community

What is Eucalyptus?



Amazon AWS behind your firewall

- Open-Source, on-premise cloud computing infrastructure
- Currently supports the Amazon AWS API; EC2, S3 and EBS
 - Can do other API's
- Agnostic to flavor of Linux
 - Ubuntu, RHEL, CentOS, Fedora, OpenSUSE, SLES, debian
- Indifferent to hypervisor technology
 - Xen, KVM and most recently VMWare
- Built to run on commodity infrastructure (x86)
- Easy to install and maintain
- Rapidly accelerating adoption
- Growing ecosystem and an active and vibrant community

Thank you



There is more to Eucalyptus than our approach to interoperability

Contact us and we will explain

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