

# Apache CloudStack and Cloud Standards

Sebastien Goasguen

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## Info

Apache incubator project

<http://www.cloudstack.org>

<http://incubator.apache.org/cloudstack/>

#cloudstack on irc.freenode.net

@CloudStack on Twitter

<http://cloudstack.org/discuss/mailling-lists.html>

**Welcoming contributions and feedback, Join the fun !**

## A bit of History

- Original company VMOPs (2008)
- Open source (GPLv3) as CloudStack
- Acquired by Citrix (July 2011)
- Relicensed under ASL v2 April 3, 2012
- Accepted as Apache Incubating Project April 16, 2012
- First Apache (ACS 4.0) release expected Sept 26th



## Apache Process

- 100% community driven
- New ideas, decisions only taken on mailing lists.
- Votes taken by community
- Project led by Project Management Committee (PMC):
  - <http://www.apache.org/dev/pmc.html>
  - <http://incubator.apache.org/guides/commmitter.html>
- Non committers get invited as committers:
  - <http://community.apache.org/newcommitter.html>

# Apache Processes

**Rohit Yadav**

Yesterday

new committer: Marcus Sorensen

Trash - Gmail

Congratulations Marcus! Regards. --David on behalf of the CloudStack PPMC

2 ▶

**Abhinandan Prateek**

8:20 AM

New PPMC member: Edison Su

Congrats Edison ! -abhi

3 ▶

**John Kinsella**

Yesterday

[VOTE] Apache Cloudstack 4.0.0-incubating Release, first round

+1 (binding) Completed smoke test last night, will be doing upgrade testing later today. On Oct 11, 2012, at 2:04 AM, Noah Slater <nslater@tumbolia.org> Stratose...

3 ▶

**Wido den Hollander**

7:41 AM

[VOTE] Apache Cloudstack 4.0.0-incubating Release, first round

Sorry for stopping the +1 spree, but I'm going to vote -1. While testing the artifact I ran into CLOUDSTACK-316 (which I created). QA (nofi) only tested with cloudbro...

11 ▶

## Cloud Standards

### Chip's Blog

CLOUDS, SOFTWARE, INFRASTRUCTURE, OH MY!

#### Entries in cloudstack (8)

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#### DMTF's CIMI v1 Released - How should CloudStack support it?

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📅 WEDNESDAY, AUGUST 29, 2012 AT 11:22AM

Now that CIMI has been [released as an official DMTF specification](#), it's time for implementations to start being finalized. Wearing my CloudStack "hat", I've been thinking about how to best integrate CIMI into that project. In the press release from DMTF, Sheng Liang says that the Citrix development team will be proposing the inclusion of CIMI into CloudStack itself:

"...Citrix is pleased to see the Cloud Infrastructure Management Interface (CIMI) standard published and will propose inclusion of the CIMI implementation into [Apache CloudStack](#) project and Citrix CloudPlatform," said Sheng Liang, CTO Cloud Platforms Group at Citrix.

## OCCI



### rOCCI & OCCI

rOCCI is a modular Framework for OCCI written in ruby. It enables users to consume provider specific...

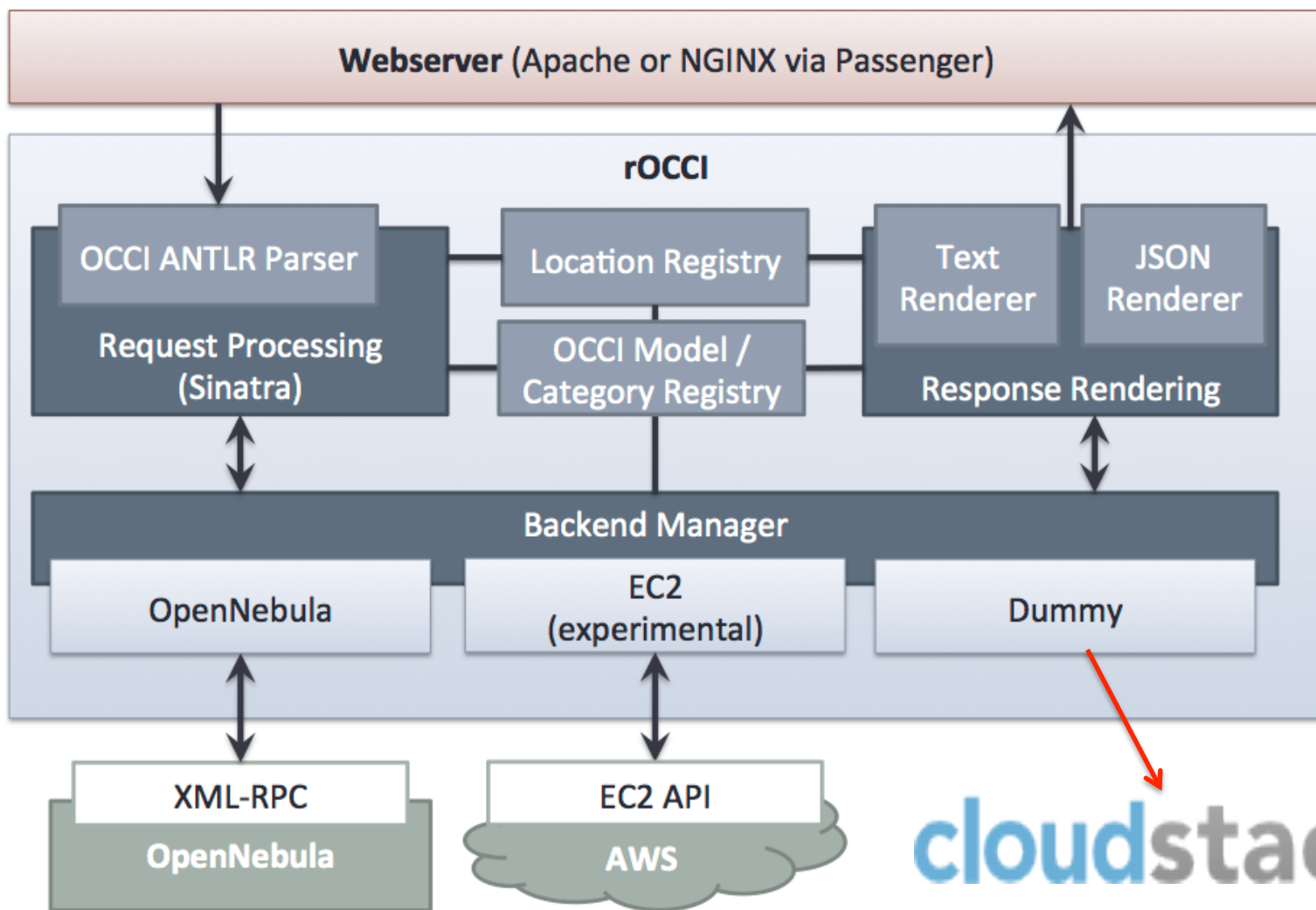
The logo for pyOCNI features the text "pyOCNI" in a green, italicized, sans-serif font. The entire logo is set against a white background within a light gray rectangular frame.

### OCCI & pyOCNI

pyOCNI (Python Open Cloud Networking Interface) is a Python implementation of an extended OCCI with a...

# OCCI implementation

## Architecture





## A very extensive API

### Network

- [createNetworkOffering](#)
- [updateNetworkOffering](#)
- [deleteNetworkOffering](#)
- [listNetworkOfferings](#)
- [createNetwork](#)
- [deleteNetwork \(A\)](#)
- [listNetworks](#)
- [restartNetwork \(A\)](#)
- [updateNetwork \(A\)](#)
- [createPhysicalNetwork \(A\)](#)
- [deletePhysicalNetwork \(A\)](#)
- [listPhysicalNetworks](#)
- [updatePhysicalNetwork \(A\)](#)
- [listSupportedNetworkServices](#)
- [addNetworkServiceProvider \(A\)](#)
- [deleteNetworkServiceProvider \(A\)](#)
- [listNetworkServiceProviders](#)
- [updateNetworkServiceProvider \(A\)](#)
- [createStorageNetworkIpRange \(A\)](#)
- [deleteStorageNetworkIpRange \(A\)](#)
- [listStorageNetworkIpRange](#)
- [updateStorageNetworkIpRange \(A\)](#)
- [addNetworkDevice](#)
- [listNetworkDevice](#)
- [deleteNetworkDevice](#)
- [listF5LoadBalancerNetworks](#)
- [listSrxFirewallNetworks](#)
- [listNetscalerLoadBalancerNetworks](#)

### Load Balancer

- [createLoadBalancerRule \(A\)](#)
- [deleteLoadBalancerRule \(A\)](#)
- [removeFromLoadBalancerRule \(A\)](#)
- [assignToLoadBalancerRule \(A\)](#)
- [createLBStickinessPolicy \(A\)](#)
- [deleteLBStickinessPolicy \(A\)](#)
- [listLoadBalancerRules](#)
- [listLBStickinessPolicies](#)
- [listLoadBalancerRuleInstances](#)
- [updateLoadBalancerRule \(A\)](#)
- [addF5LoadBalancer \(A\)](#)
- [configureF5LoadBalancer \(A\)](#)
- [deleteF5LoadBalancer \(A\)](#)
- [listF5LoadBalancers](#)
- [addNetscalerLoadBalancer \(A\)](#)
- [deleteNetscalerLoadBalancer \(A\)](#)
- [configureNetscalerLoadBalancer \(A\)](#)
- [listNetscalerLoadBalancers](#)

• CloudStack orchestrates your network:

- Provisioning
- Configuration
- Updates

• For multi-tenants isolation

• Using hardware and software devices

## API issues

# ospero

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NEW

### Amazon and Eucalyptus join up in API agreement

A new technology partnership between Amazon and Eucalyptus Systems has been announced to help ease the process of moving data between the Eucalyptus data centre and the Amazon cloud.

The team-up will see Eucalyptus's private cloud technology be integrated with Amazon's Web Service (AWS). The move will further help to reduce European firms' fears about security and the cloud. It will, after all, help firms to run cloud services within their own premises, keeping data locally and away from the prying eyes of foreign governments.

James Governor, an analyst at Redmonk spoke to ZDNet about the issue and explained, "European companies at the moment are more concerned about the US government having access to their business information than they are blackhats. A lot of organisations want something that's on-premise."

### Will the Oracle-Google lawsuit kill the API?

Posted 08 May 2012 20:39pm by [Patricio Robles](#) with [1 comment](#)

[Print](#)



As Google and Oracle duke it out in court over claims that the search giant violated copyrights and patents now owned by Oracle in developing Android, it appears that the battle may have wide-ranging ramifications.

Yesterday, a jury decided that Google violated Oracle copyrights related to the organization and structure of Oracle's Java APIs, but was unable to

decide whether Google had a valid fair use claim.

According to Oracle, Google effectively copied 37 Java APIs into its Android operating system, and this represented copyright infringement. The jury, which agreed, was instructed by the judge in the case, William Alsup, to deliberate with the understanding that the structure, organization and sequence of the APIs was copyrightable in the first place.

He may yet decide as a matter of law that this is not the case, but if he doesn't, the future of the API may be a lot more bleak.

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## Networking standards: OpenFlow



- Google achieved 95% utilization of WAN backbone by [using SDN](#)

- Leading SDN protocol
- Decouples control and data plane by giving a controller the ability to install flow rules on switches.
- Hardware or software switches can use OpenFlow
- Spec driven by [ONF](#)

# Conclusions

CloudStack is fully Open Source and Community Driven

We can expect to see CIMI/OCCI implementations integrated in the CloudStack code base

Other standards (ONF) are being used

**Apache CloudStack 4.0 first release being voted on as we speak.**