

Introduction to CloudStack:

How to Deploy and Manage Infrastructure-as-a-Service Clouds with CloudStack

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Agenda

- Overview of CloudStack (15 minutes)
- Demo of CloudStack (20 minutes)
- Q&A with Support (25 minutes)

CloudStack Background

- Open source Infrastructure-as-a-Service platform, now under ASL 2.0 license
- A *proven* cloud platform
 - Developed since 2008 by Cloud.com
 - Acquired by Citrix in 2011
 - Version 3.0.1 available for download at www.cloudstack.org
 - Powering some of the world's largest clouds today

CloudStack Users



Telco and Service
Providers

Web 2.0 and
Media

Enlightened
Enterprise

CloudStack Deployment Models



Private Cloud



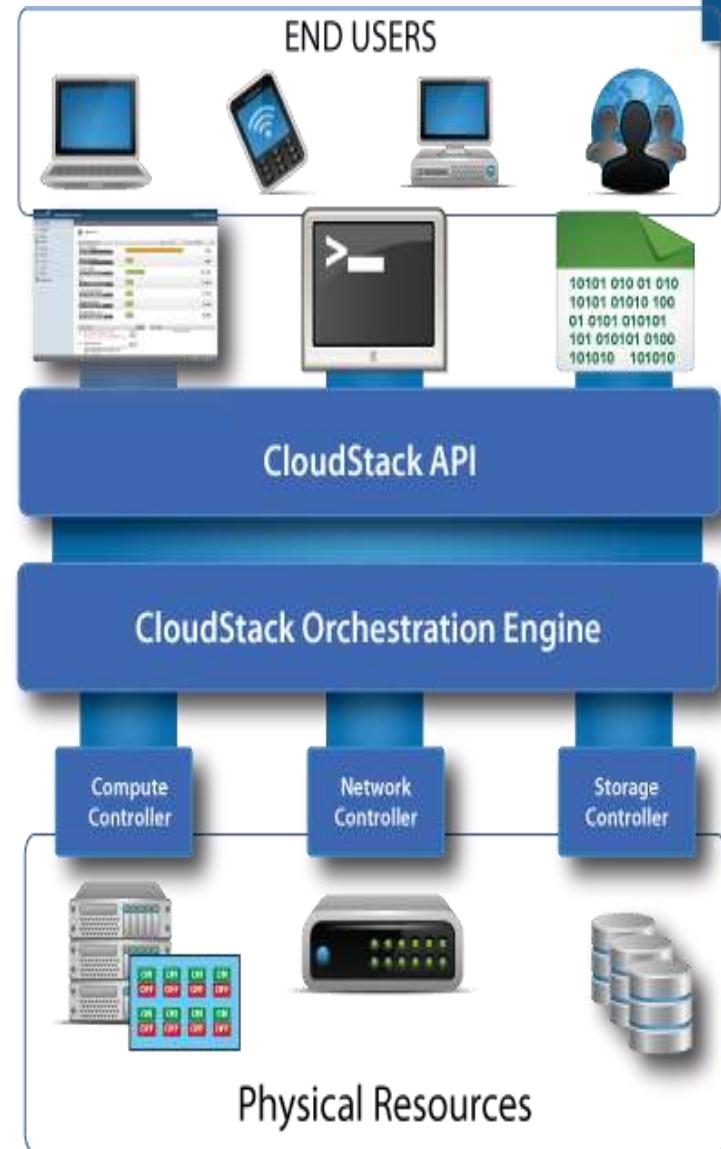
Hybrid Cloud



Public Cloud

What is CloudStack?

CloudStack is a
scalable,
multi-tenant,
open source,
purpose-built,
cloud orchestration
platform
for delivering turnkey
Infrastructure-as-a-Service
clouds



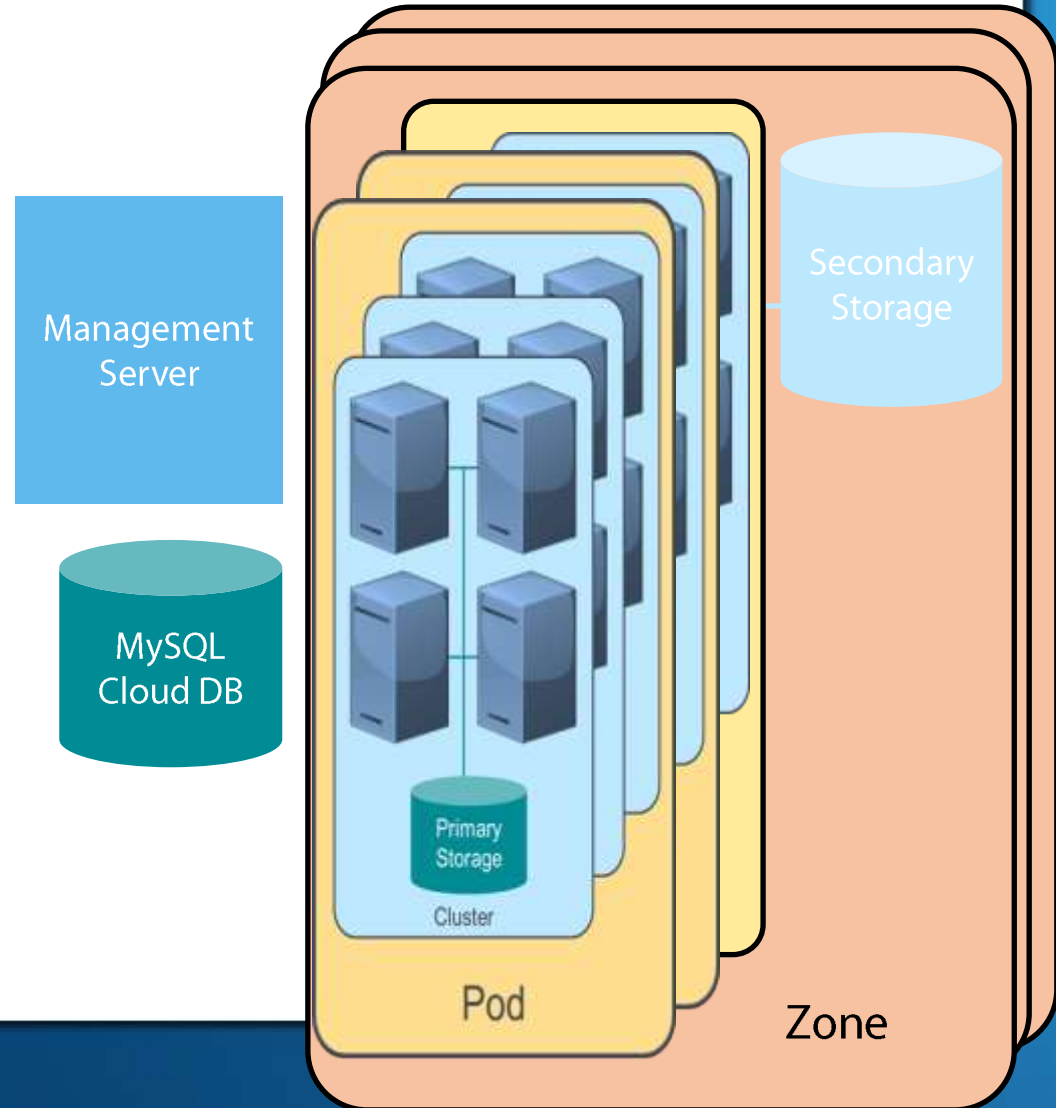
Feature Highlights

The logo for CloudStack, with the word "cloud" in blue and "stack" in grey.

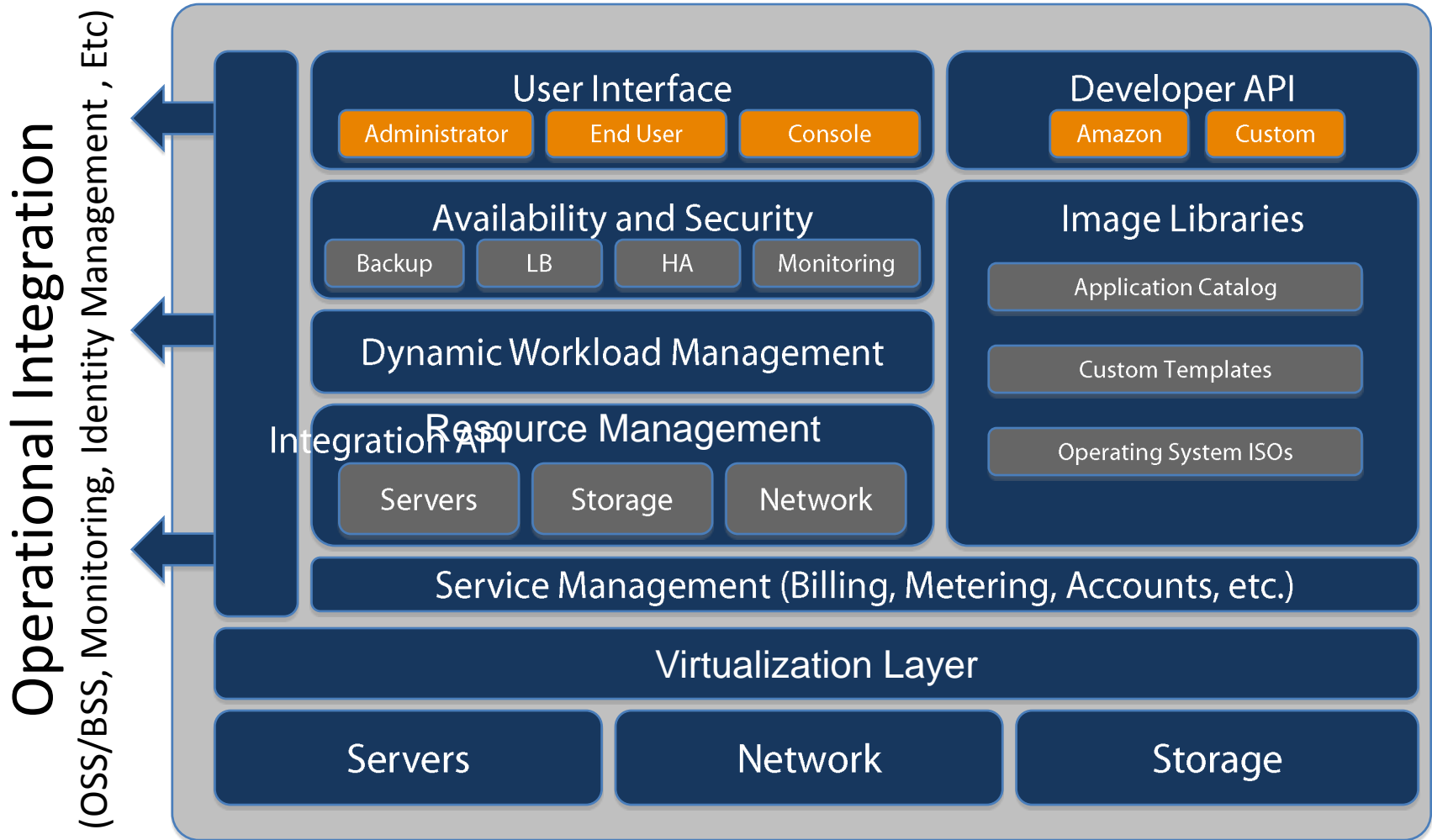
- Broad Hypervisor support
 - XenServer, KVM, VMware, OracleVM
- Scalable architecture
 - Support thousands of hosts and virtual machine guests
- High availability
 - Configurations that provide automatic failover for virtual machines
- Virtual Networking to segment network traffic into VLANs
- Ability to define service level definitions with specific resource footprints
- Choice of interfaces
 - Web UI, command line, REST-based API

CloudStack Infrastructure Overview

- Host is the basic unit of scale. Hosts run a hypervisor or are bare metal.
- One or more hosts of same hypervisor type are grouped into a cluster. All hosts in cluster have access to shared (primary) storage.
- One or more clusters are grouped into a pod, usually with an L2 switch (think rack).
- One or more pods are grouped into an availability zone. A zone has access to secondary storage.
- One or more zones is controlled by a management server.



CloudStack Architecture



Developers Love CloudStack

- Open source (ASL 2.0)
- Written in Java
- Multiple APIs
 - Native CloudStack API
 - Amazon EC2 compatible API
- Customizable Web UI
 - Rich AJAX client interface
 - Built on HTML/JSP, CSS, Javascript, jQuery
- Active development community
 - <http://www.cloudstack.org>
 - Download binaries, source



Announcing...

CloudStack 3.0.1 and Apache

What's Changed in CloudStack 3.0.1

- First release licensed under Apache 2.0
- Support for XenServer 6.0.2
- Upgrade from 2.2.x version
- Full support for VMWare vSphere 5.0
- KVM supported as a part of the Basic install
- Port 8096 closed and disabled by default on fresh 3.0.1 installs
- Multiple physical networks in basic zone
- Assign IP ranges to an account or domain
- Minor API changes
- Various bug fixes

CloudStack and Apache

- CloudStack 3.0.1 and all future versions will be licensed under [Apache License 2.0](#) instead of GPLv3
- CloudStack has been accepted into the Apache Software Foundation Incubator
- Turns CloudStack into a truly community run project with governance provided by the Apache foundation
- Why Apache?
 - Industry standard in OSS Foundations, “not controlled by Citrix”
 - 10+ years, 100+ projects, 800 developers
 - Well-known projects: Apache Web Server, Apache Tomcat, Hadoop, Cassandra, etc.
- Citrix will deliver a full commercial of implementation of CloudStack

CloudStack Demo

Kirk Kosinski
Escalation Engineer
Citrix Systems

Questions?

IRC: #CloudStack on irc.freenode.net

Forums: <http://cloudstack.org/forum/>

Mailing lists:

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

Email: gemiller@cloudstack.org

Twitter: @cloudstack