

# ArchSummit全球架构师峰会 北京站2015

## 如何构建高效能的研发机构

梁胜 Rancher Labs

# Geekbang>

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2016年4月21-23日 | 北京·国际会议中心

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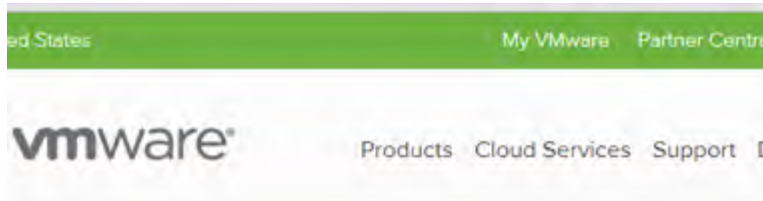
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# VMworld Sept 2008



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/ VMware Announces vCloud Initiative for Enterprise...

## VMware News Releases

**VMware Announces vCloud Initiative for Enterprise-Class Cloud Computing with Support from Industry Leaders BT, Rackspace, SAVVIS, SunGard, T-Systems, Verizon Business and Others**

**vCloud Initiative to Federate Resources Between Internal IT and External Clouds and Enable Broad Application Compatibility for Cloud Computing**

**LAS VEGAS, Nevada, September 15, 2008**— Today at VMworld 2008, VMware, Inc. (NYSE: VMW), the global leader in virtualization solutions from the desktop to the datacenter, announced its vCloud Initiative,



## VMware vCloud Team

A team of 200+ elite engineers from all groups inside VMware



## Cloud.com CloudStack Team

A team of 15 developers who didn't know what they were up against



# The VMware Advantage over Cloud.com CloudStack 2.0

Top Reasons to Deploy VMware® vCloud Director

VMware vCloud Director delivers secure, multi-tenant private cloud infrastructure while driving the highest degree of agility, efficiency and freedom of choice

## 1. VMware delivers the complete stack, with all the components needed to build a Secure Private Cloud

- VMware provides a fully integrated secure private cloud solution:
  - vSphere + vCenter: Industry-leading, most proven virtualization platform
  - vShield Edge: Integrated network security for virtual environments
  - vCenter Chargeback: Comprehensive cost and resource-allocation features
  - vCloud Director: Multi-tenant IaaS cloud management solution
- Cloud.com only focuses on the management layer of the cloud stack and requires extensive integration with 3rd party products to build a complete cloud solution

## 2. Tight integration of vCloud Director and vSphere enables more advanced features compared to compromises from Cloud.com's multi-hypervisor support

- vCloud Director is optimized to take advantage of the advanced capabilities of vSphere 4.1, such as
  - Distributed virtual switch
  - DRS
  - CPU & memory resource controls, Storage & Network I/O Control
  - Hot-add memory/CPU/disk
- CloudStack masks valuable features from the underlying platform
  - Enterprise edition with XenServer 5.6 is full of compromises:
    - No memory overcommit (i.e., Citrix Dynamic Memory Control)
    - No workload balancing
    - No manual VM migration – live or otherwise
    - No Fibre Channel storage
    - Thin provisioning on NFS only – not iSCSI

## 3. vCloud Director provides secure multi-tenancy on shared hardware resources, with guaranteed allocation and isolation of CPU/memory resources

vmware  
vCloud Director

- vCloud Director leverages vSphere resource pools
- Tried and proven resource isolation
  - Enables virtual datacenters through efficient pooling of resources
  - vSphere Storage and Network I/O Control for shared infrastructure fairness

cloud.com  
CloudStack 2.0

- Cloud.com CloudStack cannot enforce resource isolation
- No capabilities in underlying platform to aggregate and subdivide resources
  - No effective way for user to select a particular cluster for use
  - Difficult to avoid "noisy neighbors" on shared storage resources

## 4. CloudStack 2.0 displays several basic security weaknesses generally not seen in more mature products

- No SSL access to management servers
- Virtual routers based on outdated Linux distro (Fedora 8) with no apparent mechanism to keep updated
- Private SSH and SSL certificates are proliferated, therefore compromise of a single host can lead to widespread breach
- Remote console SSL encryption relies on public DNS server (Operated by Cloud.com), which is a possible security vulnerability that could lead to information leakage
- Password reset feature sends plaintext passwords over network

Only VMware vCloud Director provides a path to secure hybrid clouds that fully employs the power and flexibility of VMware vSphere.

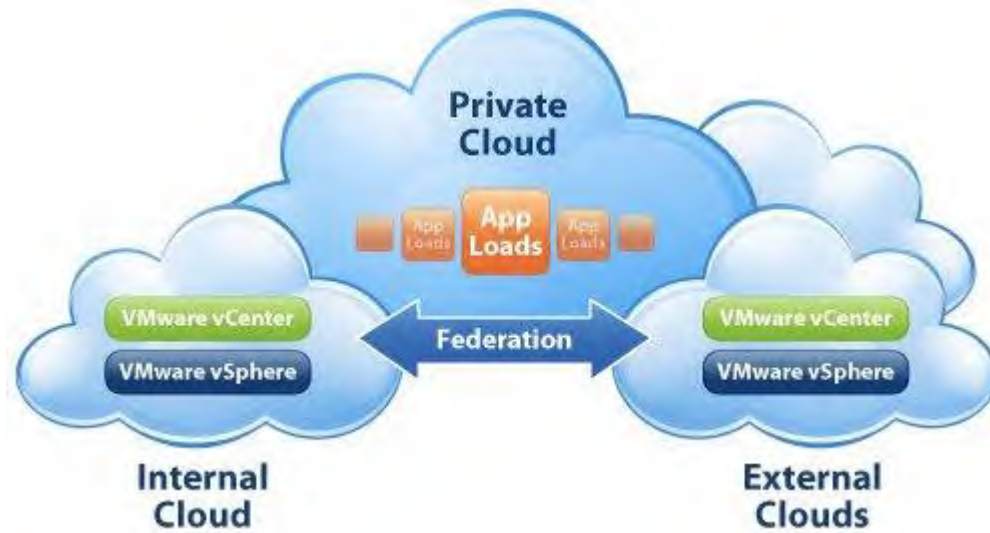
Version: 1.0 – Dec 2010

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vmware

Why do so many capable development teams fail to deliver a great product?

## The pitfalls of “AND”





A good developer should proactively simplify the product



Is your engineering process as efficient as it can be?



## Architects vs. coders



## Innovation centers & research labs





# What does a developer want?



# That comes between developers and customers?



Developers



Customer Support



Customers



Product Manager



**Andi Gutmans**

Software Executive, Open Source Innovator, Thought Leader

Following

## Is the Product Marketing Role Becoming Extinct?

Dec 1, 2015

156 views



7 Likes



0 Comments



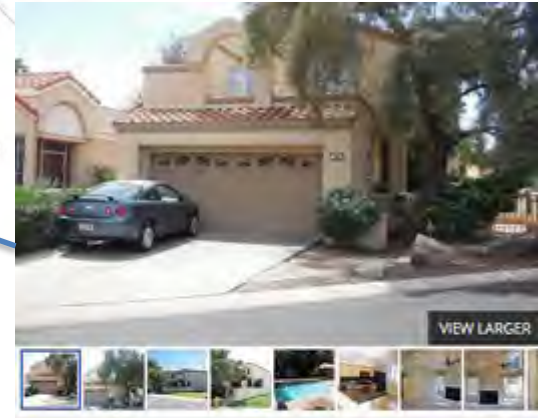
Here's an interesting question for enterprises to consider: What if product marketers have no role to play in the future of your organization? Though provocative, it's a question that cannot be answered without a common understanding as to what the modern product marketer actually does, and more importantly, what they should be doing. So with that as the backdrop, let's take a closer look at the role.

# Where do we look for developers?



10310 Moretti Dr,  
Cupertino, CA 95014  
4 beds · 3.5 baths · 1,911 sqft

● FOR SALE  
\$1,799,000



329 W Sumerset Dr,  
Phoenix, AZ 85023  
3 beds · 3 baths · 1,925 sqft

● FOR SALE  
\$259,900



# How to look for the right talent



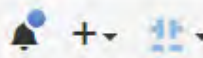


Solutions engineer	SmartJog	September 2006 – November 2007
Infrastructure Engineer	CEIS	May 2004 – September 2006
Self-employed		January 2003 – May 2004
Junior software engineer	San Diego Supercomputer Center	July 2002 – December 2002
System Administrator	Fairgame	September 1999 – September 2001



Search GitHub

Pull requests Issues Gist



**Darren Shepherd**  
ibuildthecloud

Rancher Labs, Inc.  
<http://rancher.com>  
Joined on May 18, 2012

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Organizations

Contributions   Repositories   Public activity

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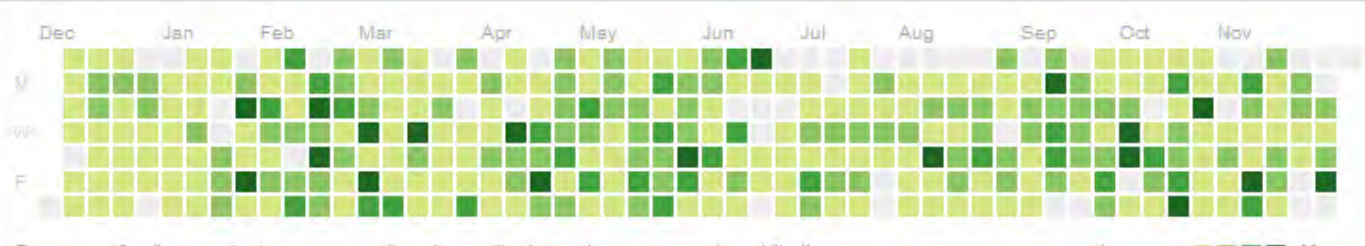
Popular repositories

	<a href="#">systemd-docker</a>	287 ★
Wrapper for "docker run" to handle systemd q...		
	<a href="#">coreos-on-do</a>	95 ★
Script to install CoreOS on Digital Ocean		
	<a href="#">only-docker</a>	91 ★
Docker as PID 1... what?!		
	<a href="#">dapper</a>	7 ★
Docker build wrapper		
	<a href="#">stampede</a>	5 ★
Hybrid IaaS/Docker orchestration platform ru...		

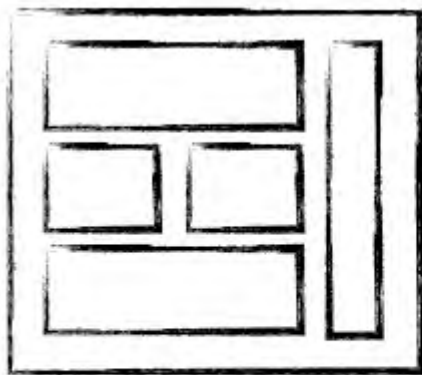
Repositories contributed to

	<a href="#">rancher/cattle</a>	179 ★
Infrastructure orchestration platform		
	<a href="#">rancher/os</a>	1,773 ★
The easiest way to run Docker in production		
	<a href="#">rancher/rancher-compose</a>	61 ★
Docker compose compatible client to deploy ...		
	<a href="#">rancher/python-agent</a>	3 ★
Python agent for Rancher		
	<a href="#">rancher/rancher</a>	2,323 ★
A Platform for Operating Docker in Production		

Public contributions



## Developing microservices



MONOLITHIC/LAYERED



MICRO SERVICES





## Engineer salary in Silicon Valley

\$60K/year

1995

\$120K/year

2015

## Factors that impact R&D effectiveness

- Thoughtful product management to eliminate unnecessary work
- Efficient engineering operations – small team, hands-on coding
- Engineers who are so passionate about serving customers and about writing code that they voluntarily put in extra time and effort
- The right talent for the job

Questions?

[sheng@rancher.com](mailto:sheng@rancher.com)





**Thanks!**

