

Techniques for Managing your OpenStack Cloud

- Ryan Geyer - @rjgeyer
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center



The best management for your OpenStack cloud,
is no management at all.



Agenda

- Managing your cloud hardware and software
- Managing your cloud enabled applications

Managing Hardware

- Rack & Stack
- Initial Installation & Configuration

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```
notroot@cse-os-aio:~$ nova network-list
```

```
+-----+-----+-----+
| ID                | Label | Cidr                |
+-----+-----+-----+
| d6fdf970-f41c-43d8-ba83-61ad932cca11 | public | 172.31.0.0/24 |
+-----+-----+-----+
```

Managing Hardware

- Rack & Stack
- Initial Installation & Configuration

```
notroot@cse-os-aio:~$ nova image-list
```

ID	Name	Status	Server
1f15fb95-5447-4ae0-8082-a6b8fd6aa6a6	RightImage_CentOS_6.3 v5.8.8.8-decomp	ACTIVE	
20c899ff-d7f8-4a5e-aa39-cc02a1b7295b	RightImage_Ubuntu_12.04 v5.8.8.8-decomp	ACTIVE	
49a18468-6048-4c82-b4eb-e3b6af6acc24	cirros-0.3.0-x86_64-uec-initrd	ACTIVE	
912eb659-c50e-48e1-bb98-810b51de03ad	cirros-0.3.0-x86_64-uec-kernel	ACTIVE	
bb6d46df-1681-4f65-9dff-92ba6dfbb15d	cirros-image	ACTIVE	
f75edf62-b0d6-4205-b81d-73b05d3edb0c	precise-image	ACTIVE	
1faf2909-f999-4bd4-a8da-61c5202d48f6	precise-server-cloudimg-amd64-initrd	ACTIVE	
a2818ea9-2bd4-4d1e-8f1d-af662d6ca627	precise-server-cloudimg-amd64-kernel	ACTIVE	


Managing Hardware

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```
mysql> select host from services;
+-----+
| host          |
+-----+
| cse-os-aio    |
| cse-os-aio    |
| cse-os-aio    |
| cse-os-aio    |
| cse-os-aio    |
| cse-os-compute1 |
| cse-os-compute1 |
| rjg-os-compute1 |
| rjg-os-compute1 |
+-----+
9 rows in set (0.01 sec)
```


Managing Software

Logged in as: user Settings Sign Out


Project

user
Overview
Instances
Volumes
Images & Snapshots
Access & Security

Overview

Quota Summary

Used of Available Instances

Used of Available vCPUs

Used MB of MB Available RAM

Select a month to query its usage:

April

▾

2013

▾

Submit

Active Instances: -

Active RAM: -

This Month's VCPU-Hours: 0.00

This Month's GB-Hours: 0.00

Usage Summary

[Download CSV Summary](#)

Instance Name	VCPU	Disk	RAM	Uptime
No items to display.				

Displaying 0 items

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Managing Cloud Enabled Application

ServerTemplates

- Dynamic configuration
- Abstract role and behavior from cloud infrastructure
- Predictable deployment
- Cloud agnostic / portable
- *Object-oriented programming for sysadmins*

Server Template

Scripts

Boot-Run at Startup

Install App Server Software

Install Database Software

Operational - Run on Demand

Backup Database

Decommission - Run prior to Terminate

Shutdown Database

Base Machine Image

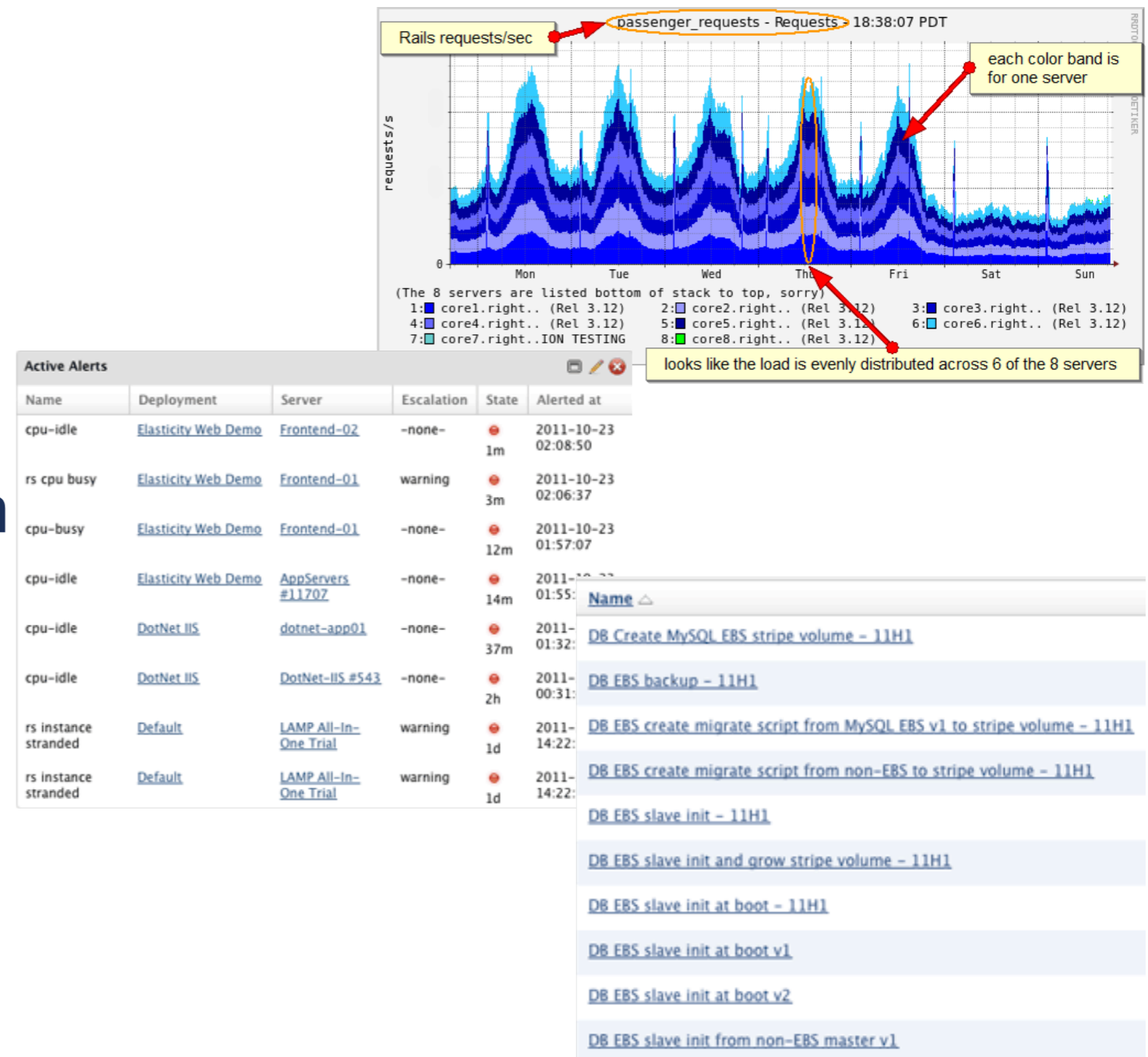
Load on Startup

Cloud Machine Image with RightLink

Automation Engine



- **Monitoring and alerting**
 - Server and application
 - Escalations and triggers
- **Auto-scaling**
- **Operational automation**
 - Database backup, failover, recovery
 - Script execution
 - Code deploys and patches



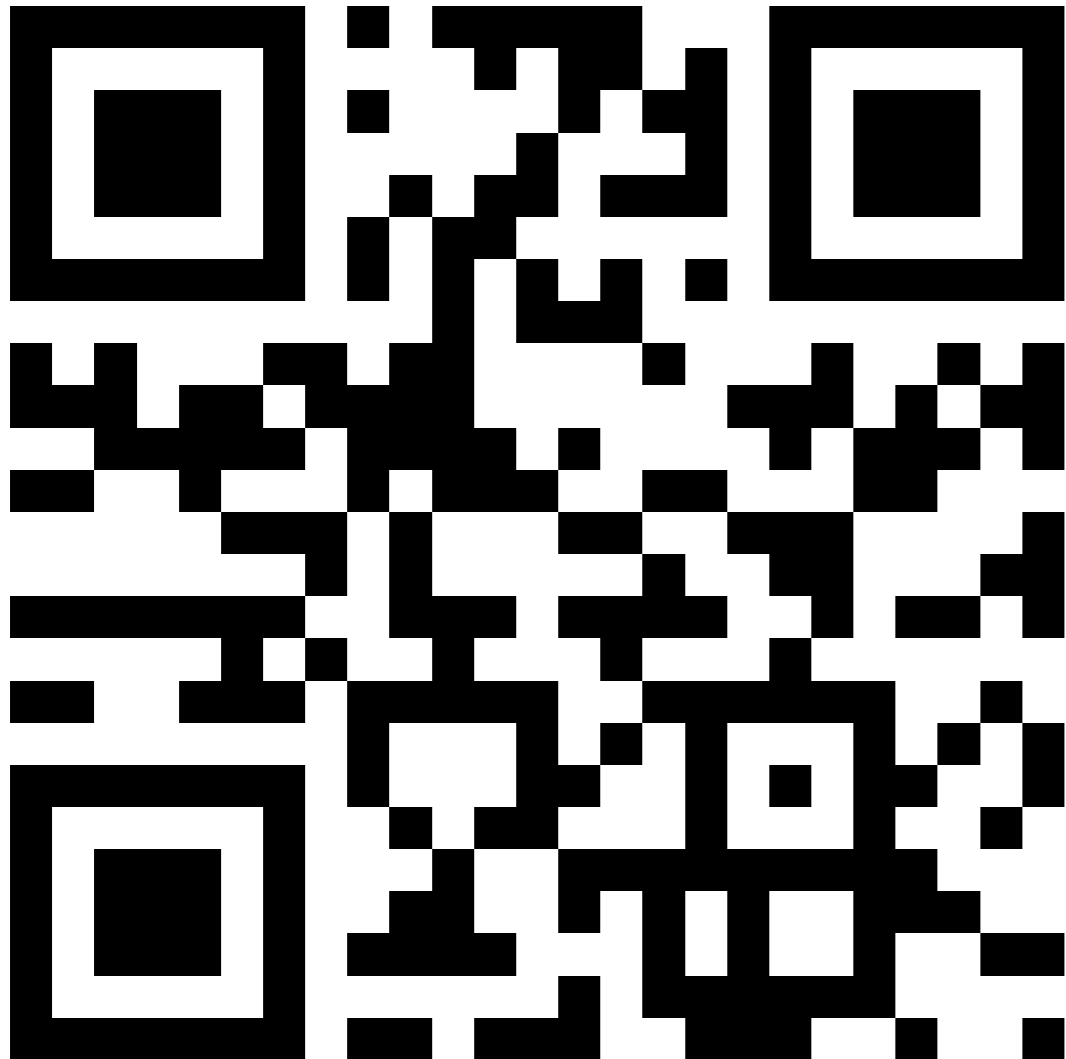
DEMO

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Summary

- Is managing your OpenStack installation and operations your core competency?
- Go register your OpenStack cloud with RightScale



<http://bit.ly/134A0Ut>

@rjgeyer – ryan.geyer@rightscale.com