



Getting the Monkey Off Your Back

*Continuous Development Environments with
Chef, Vagrant, VeeWee and Jenkins*





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Emmanuel Mwangi





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Emmanuel Mwangi
SendGrid





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Emmanuel Mwangi
SendGrid

@cloudbring



Hi! My name is...

- Emmanuel Mwangi
- QA Engineer @ SendGrid
- Web Developer for 10+ yrs





SendGrid



SendGrid is ...



Transactional Email



SendGrid delivers



100 Million+
SendGrid
Emails a day



SendGrid tracks



The SendGrid logo, which is a stylized blue envelope icon with a white 'S' inside, is positioned to the left of the main text.
**Billions of
Email Events
per Day**
SendGrid



SendGrid has delivered

A large, light blue, stylized envelope icon.

**39 Billion
Emails Sent
and Counting...**

SendGrid



SendGrid

Email @ SCALE

A large, light blue, translucent cube is positioned behind the text "We started".

We started Simple

A large, faint, light blue Jenkins logo is positioned behind the main text.

**We grew
Complex**



For Good Reasons

A large, light blue, three-dimensional geometric shape, possibly a stylized letter 'A' or a cluster of triangles, positioned to the left of the main title.

Scaling Mostly



Replaced our SQL DB with a JSON API (much like our customer api)



Split up the 3 R's

Reading, Writing & Arithmetic



Multiple Programming Languages



Marketing Pages moved to a CMS



 **We ended up
Complex**



In my mind as a QA Engineer...



SendGrid

Complexity = Risk



Enter...



SendGrid
Testing



90% Code Coverage



Testing



Continuously Tested using Jenkins



**Testing was
not enough**



Configuration was breaking tests



Chef



Chef is..



opscode.com/chef/



Chef is..



Configuration Management



Chef is..



Configuration as CODE



Chef is..



- **Idempotent**
- **Fire & Forget**
- **Testable**



Chef is..



Roles & Recipes



Vagrant





Vagrant

vagrantup.com

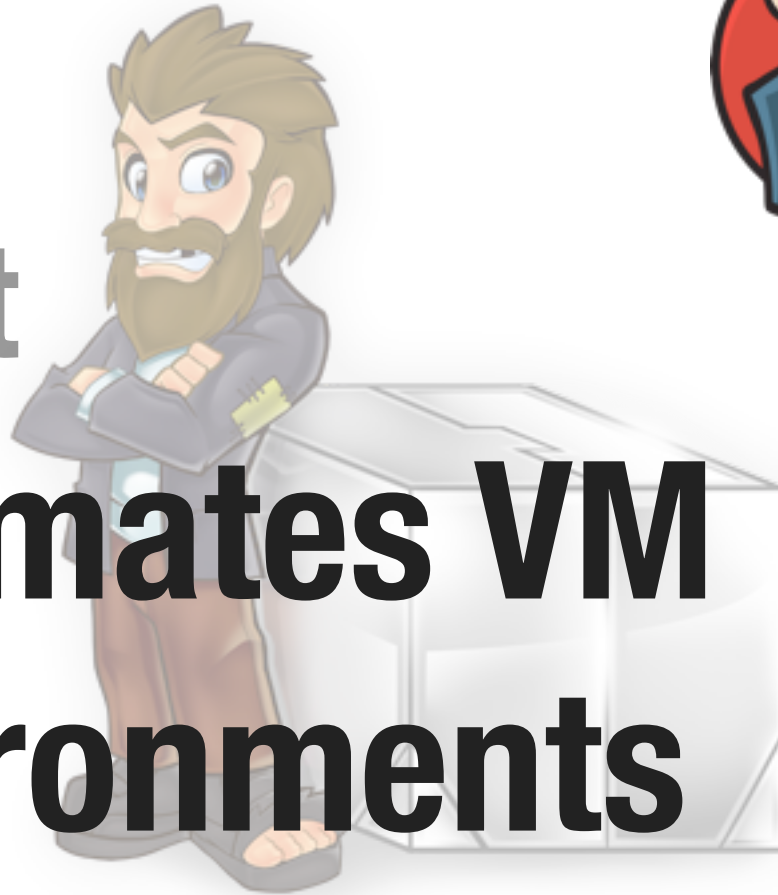




Vagrant

Automates VM

Environments





Vagrant

**What AWS is for
cloud servers...**





Vagrant

Vagrant is for

DevVMs





Vagrant



```
$ vagrant box add base http://files.vagrantup.com/lucid32.box
$ vagrant init
$ vagrant up
$ vagrant ssh
vagrant@vagrantup:~$
```



VeeWee



github.com/jedi4ever/veewee



800+ Watchers

200+ Forks

250+ Closed Issues

90+ Closed Pull Requests



Automates creation of Vagrant Boxes



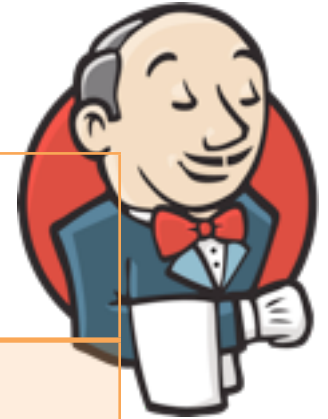
Caveat Emptor










Questions?



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