tyler@linux.com

A. Tyler Crow

Running the Jenkins project with Puppet and more infrastructure

Open Source
I work at Lookout. I also work on Ruby. But I also work on something.

A little bit about me:
Thanks!
In case you live under a rock.

(or just haven't heard about it)
Genius
But let's talk about
Intrastructure!
(Maybe three to four years ago)

Beginning

In the
Network Timeout

https://www.jamanet.com
- Java.net
- Java.net Subversion Server
- Java.net mailing lists
- Java.net Bugzilla & Atrocity
Problem: Java.net Bugzilla doesn't include Sun to run JIRA!
Solution: Seal a workstation inside KEE's desk

Frayed wires connected to 4 ATA in power mall.
THEN
Sun Microsystems

Earth Lorry

Explosion

Diagramic space
THEN
Kohsuke leaves Oracle
Lots of project uncertainty

- what happens to our distribution network
- hardware and data?

Critical infrastructure

wires still frayed

KK's old desk
Suddenly a random server appeared!
THEN
Thank you.
<table>
<thead>
<tr>
<th>Wants</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less pain</td>
<td>Bandwidth</td>
</tr>
<tr>
<td>Meeting tools</td>
<td>Build system</td>
</tr>
<tr>
<td>Transparency</td>
<td>Mining</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Drill</td>
</tr>
<tr>
<td>Account management</td>
<td>Conference</td>
</tr>
<tr>
<td>IRA</td>
<td></td>
</tr>
</tbody>
</table>
We did it the wrong way.

(please don't throw fruit at me)
Why is it wrong?

- No oversight, no audit log
- Must share superpowers
- Completely untested, trial and error led infrastructure
At a glance (2012.05)

Eggplant
JIRA
Confluence

Drupal
LOAP
Jenkins
MirrorBrain
Debian Repo
Meetbot
Everything Else

Cucumber
Shift Shift Shift - Shift Shift Shift

$\$\$\$ in bandwidth overseas

For almost two months

Cucumber served 100% of traffic

An upgrade broke MirorBrew

A costly mistake
Contegix

Thanks
Infrastructure!

But let’s talk about
RIPPER I

(mutual applause)

genealogy
What can we use it for?

- Anything with a .deb file
- Any .ini configuration files
- Users/Access
- Other non-configuration files
On come on.

Will Puppet?

What can't we
(encouraged)

boos and hisses

JIRA
Confluence too!

(you can still hiss)

for this one
GitHub

(more on this later)

But also...
But let's talk about INFRASTRUCTURE!

I mean, Puppet!
fork it

jenkins / infra - puppet

on GitHub
Our stand alone complex
- No puppet master to be compromised
- Access (push) is heavily controlled
- GitHub is trusted heavily

Security Implications
I also think it's simpler.
Both acceptable
(applause or hissing)

9 it - so broadvle (1)
Uses open source modules

- puppet - postgres
- puppet - concat
- puppet - sshd
- puppet labs - firewall
- puppet labs - ntp
- puppet labs - stdlib
Vagrant!

(applause)
But why Vagrant?

It's awesome.

rspec-puppet confuses me

cucumber-puppet, more so
Invalid Venn Diagram

- Memes
- Puppet
- Respect

Things I understand
- modules, modules, modules, modules...
- lots of manual guess-and-check
- heavy use of vagrant
- root manifest per machine

Our setup currently
At a glance (2012.07)

- Cucumber
- Drupal
- KOPAP
- Jenkins
- MirrorBrain
- Yum Repo
- Debian Repo

- Mango
- Spinach
- Kale
- Eggplant
- Confluence
- JIRA
- Lettuce
- BIND
- IPS
- Nagios

Cabbage

Black"
Old services

New services

They work well...
\[ l \cdot m = \mathbf{p} \]
- Meetbot
- Nexus (maven, ow, ow, ow, ow)
- Jira, Confluence (ow, ow, ow)
- Apache Virtual Hosts
- Drupal (loc.lwrt)

Still left to perpetize...
- backups
- More Nagios alerts
- Some legacy crons & scripts
- Postgres conf files
Challenges:

People

Mean

Intrastructure

But let's talk about
Shared Secrets?
Integrating with GitHub
(Jenkins CI/Back-end - IRC bot)

IRC bot

"Jenkins - Admin"
"Pending Pull Requests"
(on wiki.jenkins-ci.org)
Time
People

???
Bonus material!
Go Daddy sucks.

-or-

How I disappeared from the internet
Why isn't this Turing Complete?

KK Learns to use Puppet

letting