

Open source infrastructure

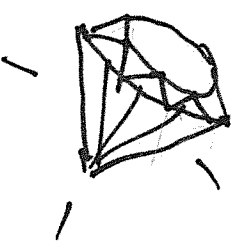
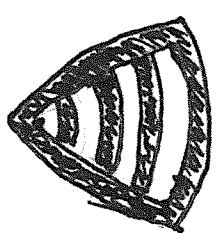
Running the Jenkins project
with Puppet and more

R. Tyler Croy

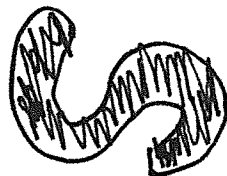
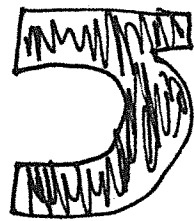
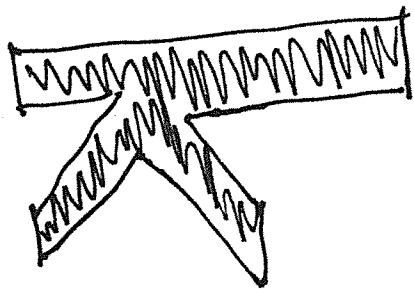
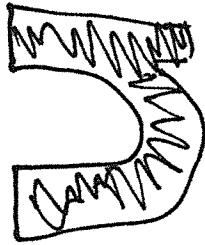
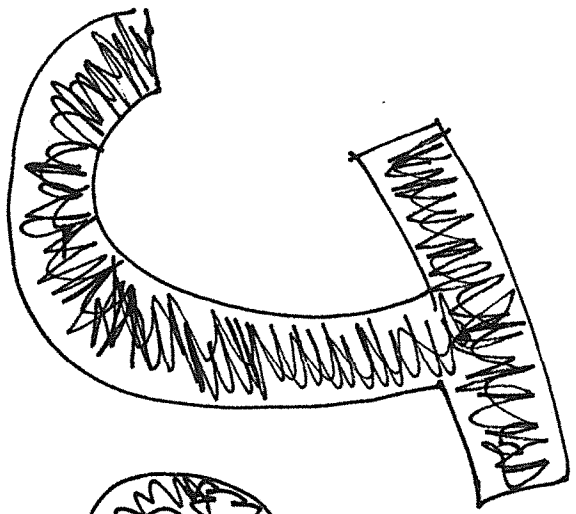
tyler@linux.com

A little bit about me:

I work at Lookout
writing Robt

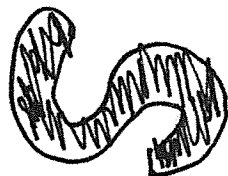
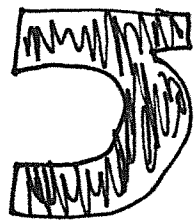
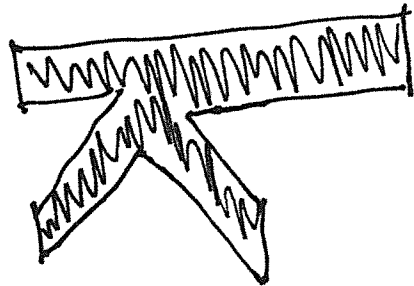
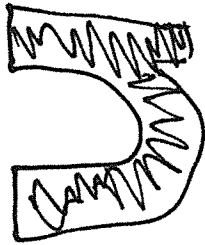
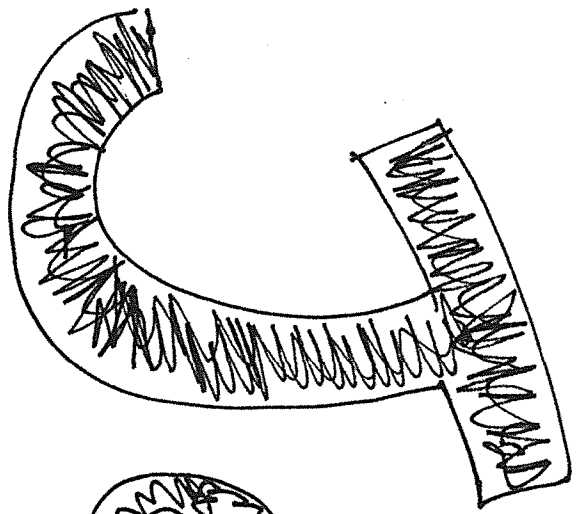


but I also
work on...



In case you live under a
rock 

(or just haven't heard about it)



But let's talk about

INFRASTRUCTURE!

En

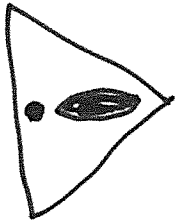
+the

பேசுமின்தி

(maybe three to four years ago)



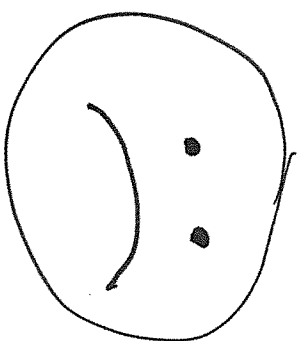
<https://www.java.net/whoreallyx/>



Network Timeout

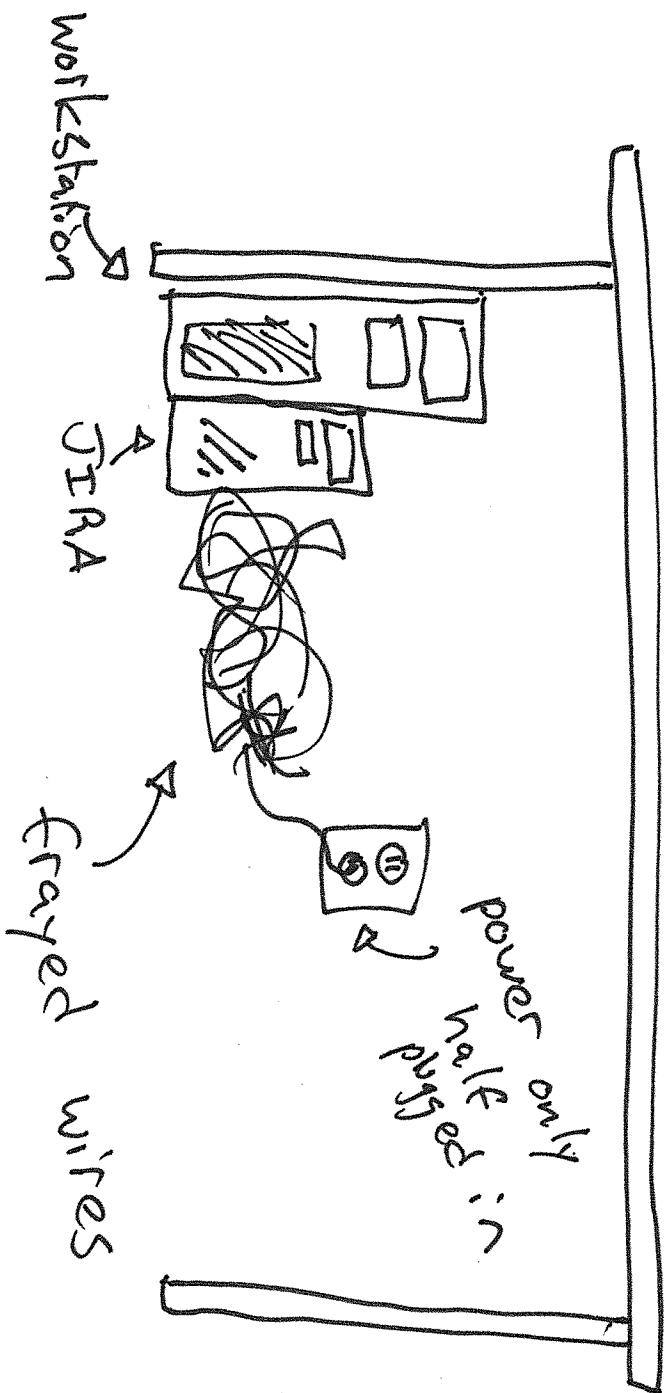
The server at www.java.net did not respond fast enough because Sun runs this entire site on a single spare station S sitting under James Gosling's desk, to keep his feet warm.

- Java.net mailing lists
- Java.net Subversion server
- Java.net Bugzilla atrocity



Problem: Java.net Bugzilla sucks

Solution: Steal a workstation inside Sun to run JIRA!



KK's desk

Java.net

mailing lists

Subversion

"Home page"

"Other"

blog

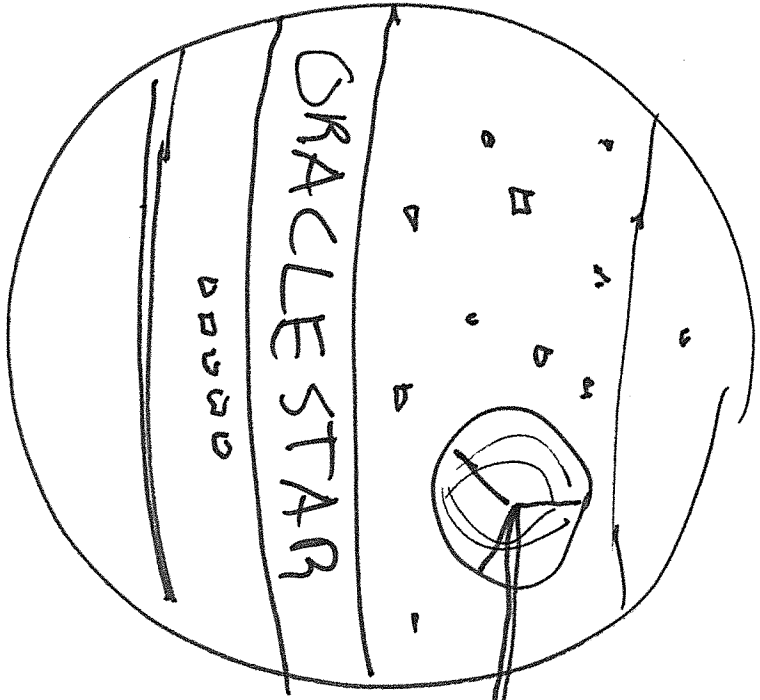
JIRA

Confluence

Continuous Integration

NEEDS

Operated by
Parth Larray



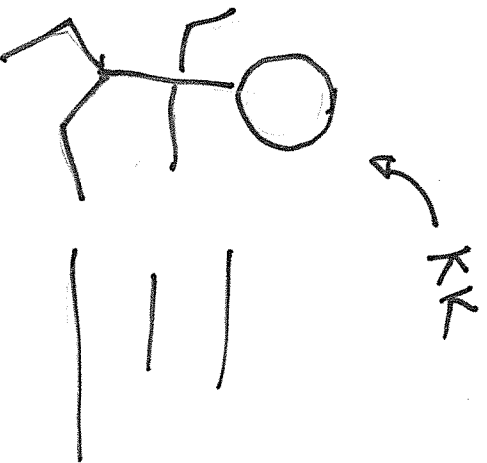
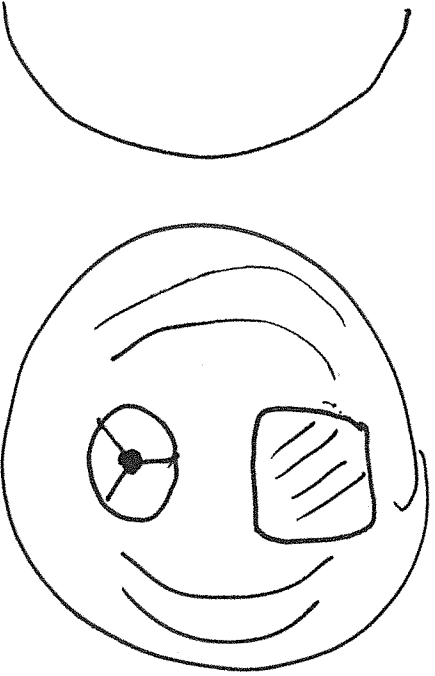
Sun Microsystems

(Dramatic space
explosion!)

NEED

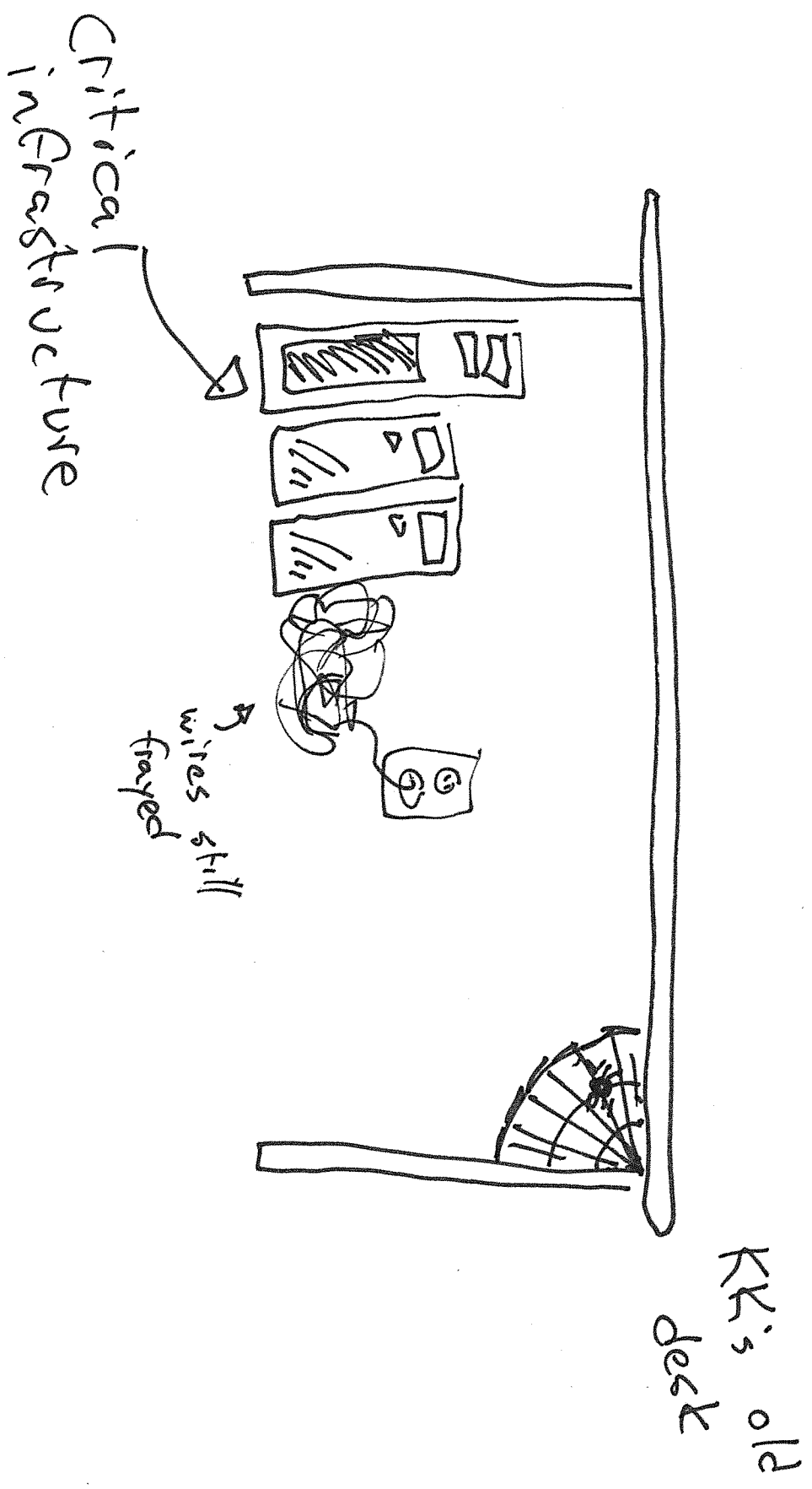
Kohsuke leaves Oracle

Escape Pods

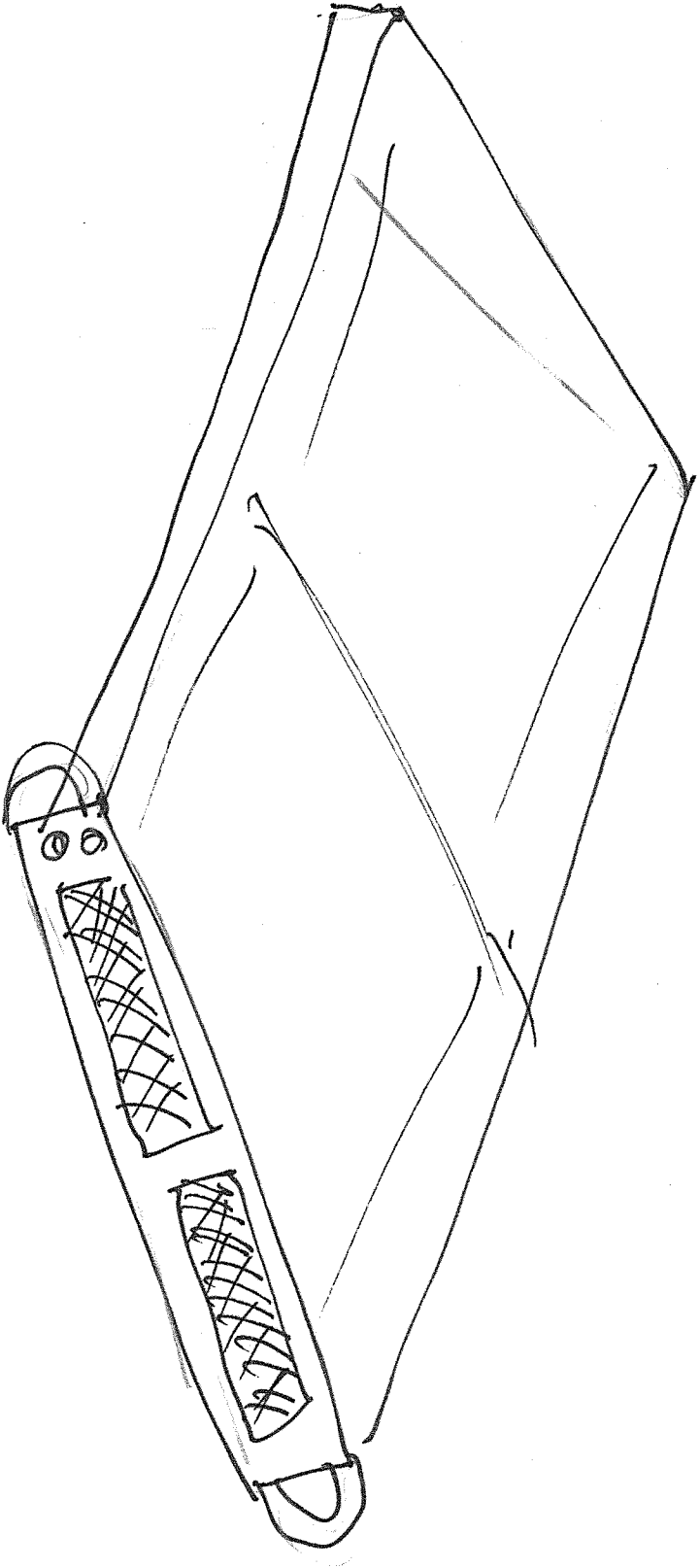


Lots of project uncertainty

- What happens to our distribution
- hardware and data?



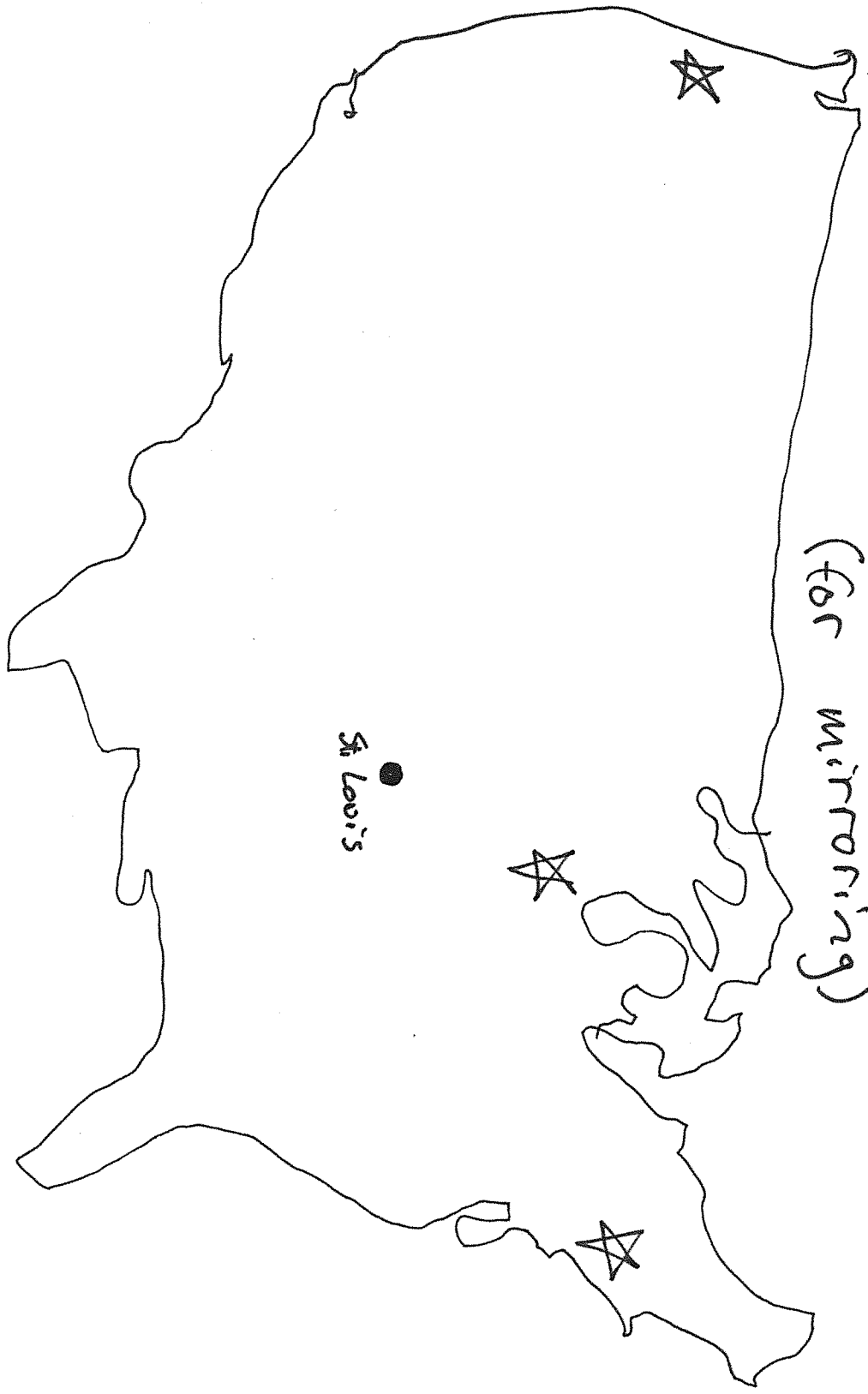
Suddenly!



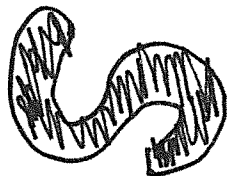
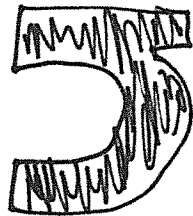
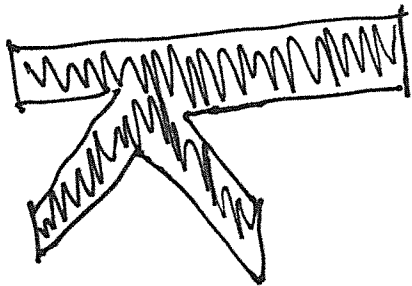
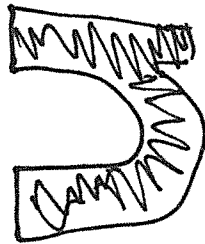
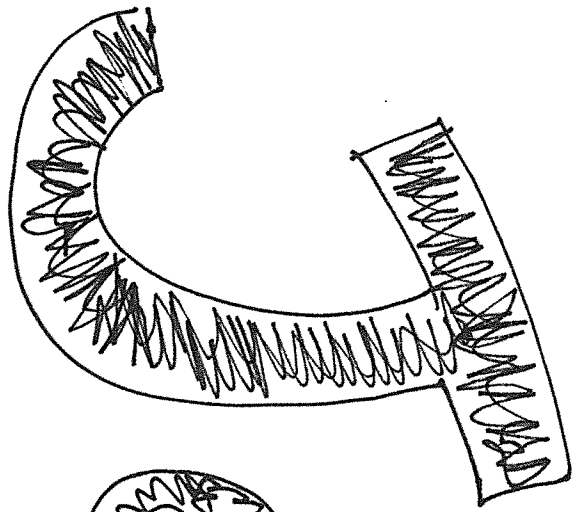
a random server
appears!

OSUOSL

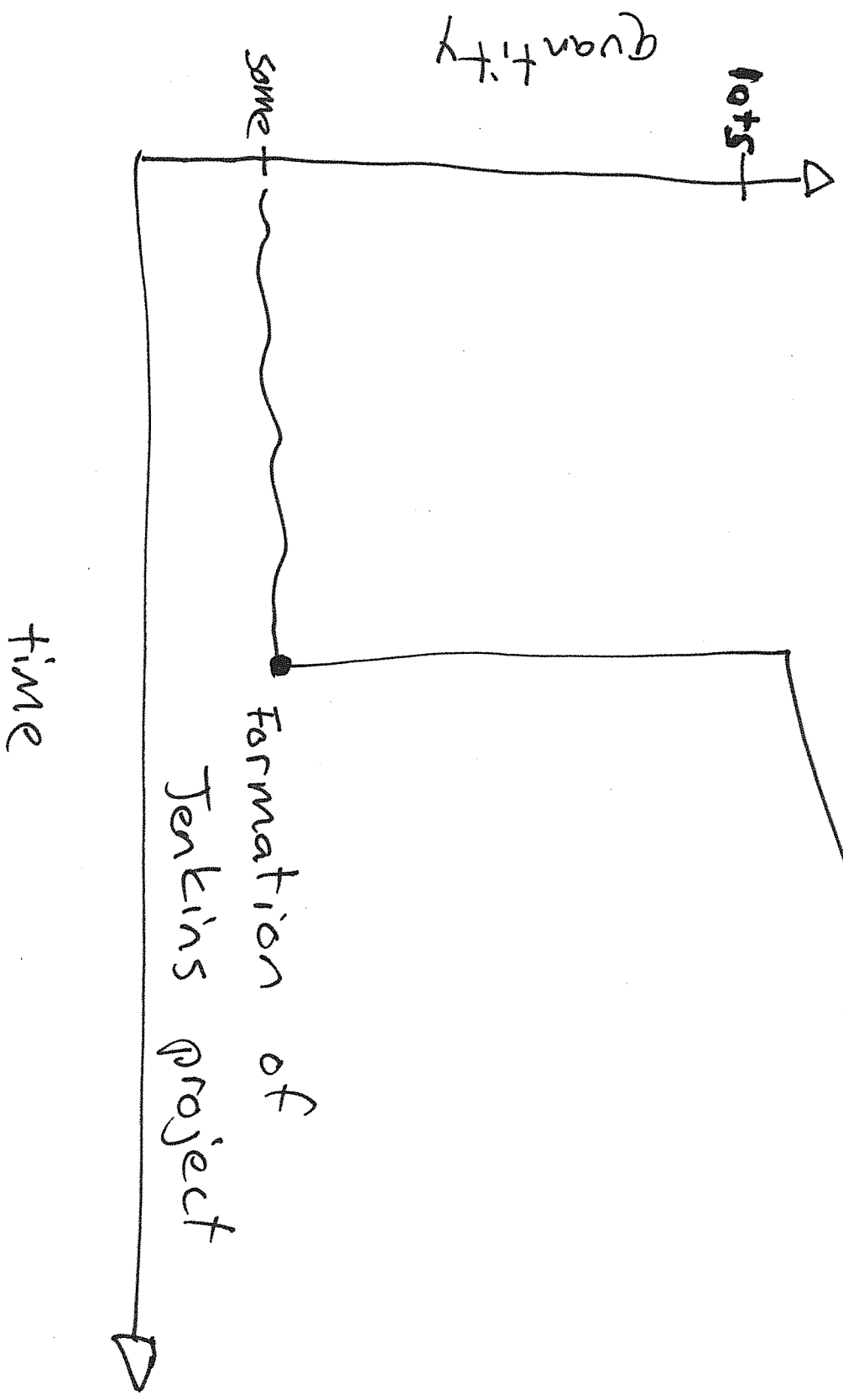
(for mirroring)



NEED



Infrastructure Needs



Needs

- JIRA
- Confluence
- Drupal
- Mirroring
- Build system
- Bandwidth

Wants

- Account management
- Monitoring
- Transparency
- Meeting tools
- Less pain

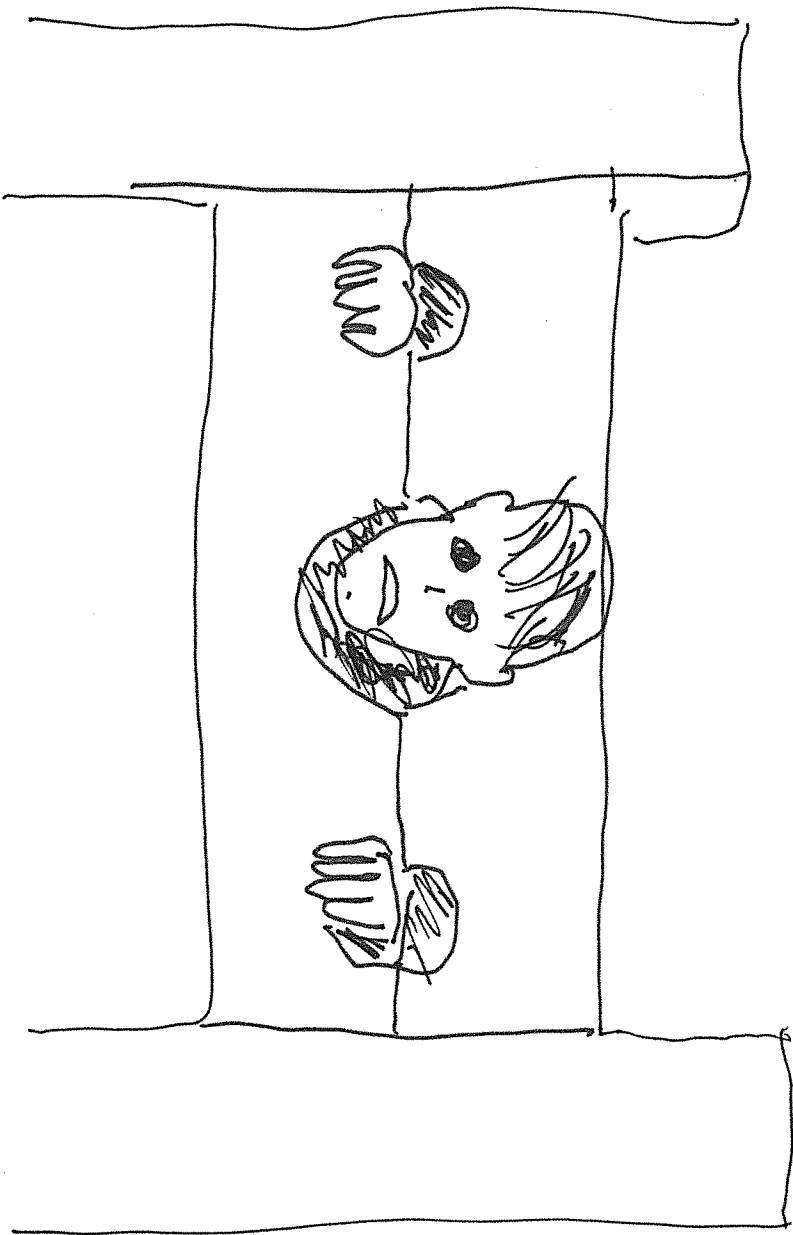
Needs

- Source Control Management
- Mailing lists

Wants

We did it the

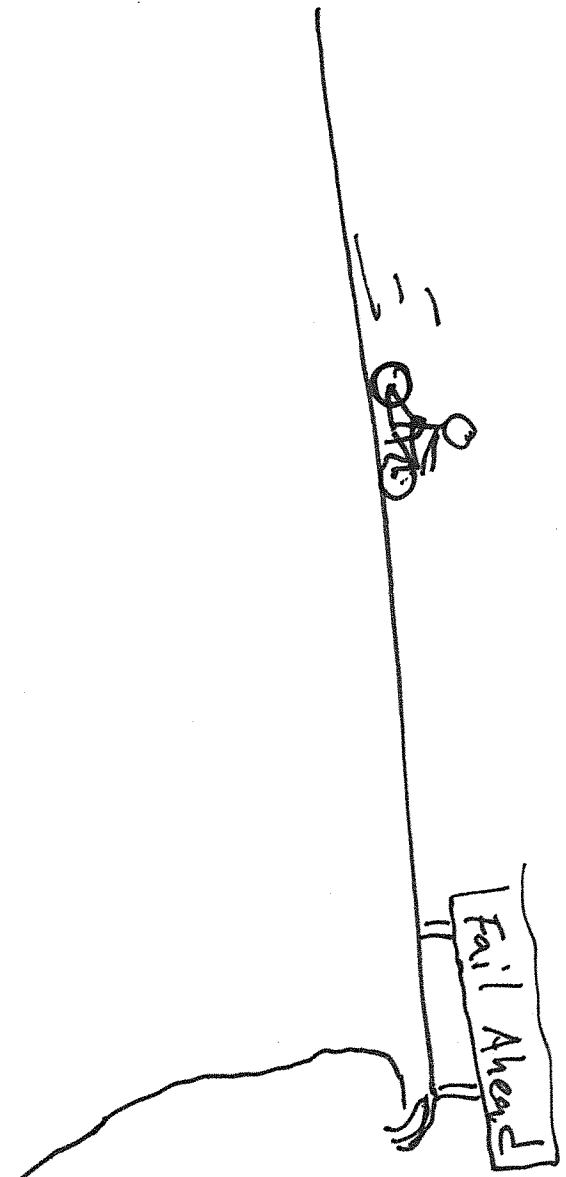
WRONG WAY



(please don't throw
cotting fruit at me)

Why is it wrong?

- No oversight, no audit log
- Must share super powers
- Completely untested, trial and error led infrastructure



Sand worms
↖

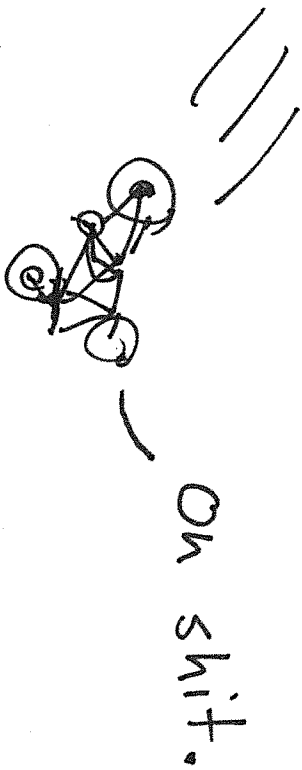
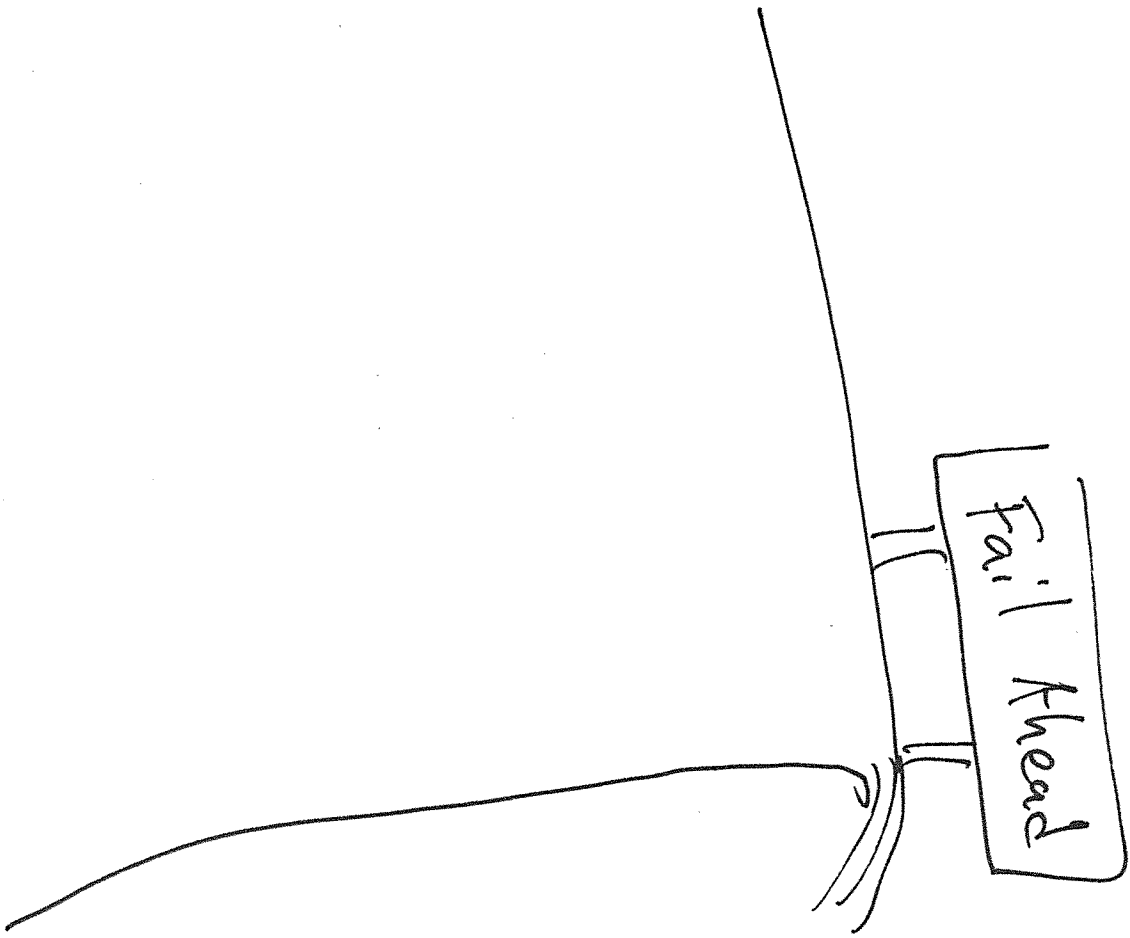
At a glance (2017.05)

eggplant

JIRA
Confluence

cucumber

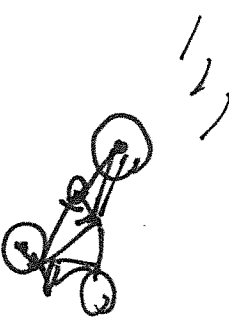
Drupal
LDAP
Minor Brain
Jenkins
yum Repos
Debian Repo
meetbot
Everything Else



All Ahead

A costly mistake

- An upgrade broke MirrorBrain
- cucumber served 100% of traffic for almost two months
- \$\$\$\$\$\$ in bandwidth overages



- Shit Shit Shit.

Thanks



Contentix


But let's talk about

INFRASTRUCTURE!

Purple!

(muted appraise
allowed)

What can we use it for?

- Anything with a .deb 
- Any/all configuration files
- Users / access
- Other non-configuration files

postgres

firewalls

Apache

Admin tools

Cron tabs

Mirror Brain

Nagios

Jenkins

user access

NTP

SSH keys

repositories

Build machine
dependencies

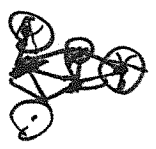
haproxy

What

forget?

can't we

///



Or come on.

STIRN

(boos and hisses
encouraged)

Confidence too!

(you can still miss)
for this one

But also...

GitHub

(more on this later)

But let's talk about

~~INTERACTURE!~~

I mean

Purple!

On GitHub

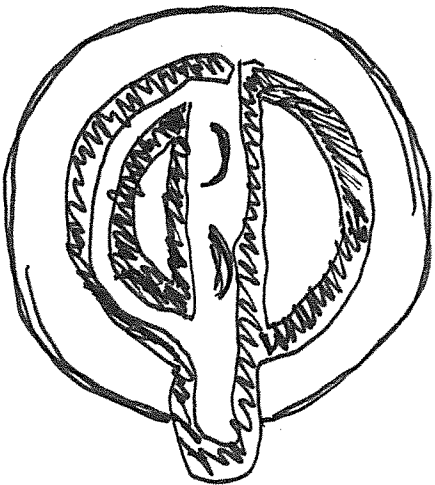
Jenkinsci / infra-puppet

- fork it!

Our

Stand alone

complex



OSL

eggplant
lettuce
cabbage

???

?

Contegix

cucumbers

ECC2

Kale

Rackspare

Spinach

Security Implications

- GitHub is trusted heavily
- Access (push) is heavily controlled
- No puppetmasterd to be compromised

(I also think it's simpler)

~~Infra-puppet.git~~

Where the magic happens

Git - submodule (1)

(applause or hissing
both acceptable)

Uses open source modules

- puppetlabs - stdlib
- puppetlabs - ntp
- puppetlabs - firewall
- puppet - sshd
- puppet - concat
- puppet - postgres
- puppet - postgres

Vāgṛanti

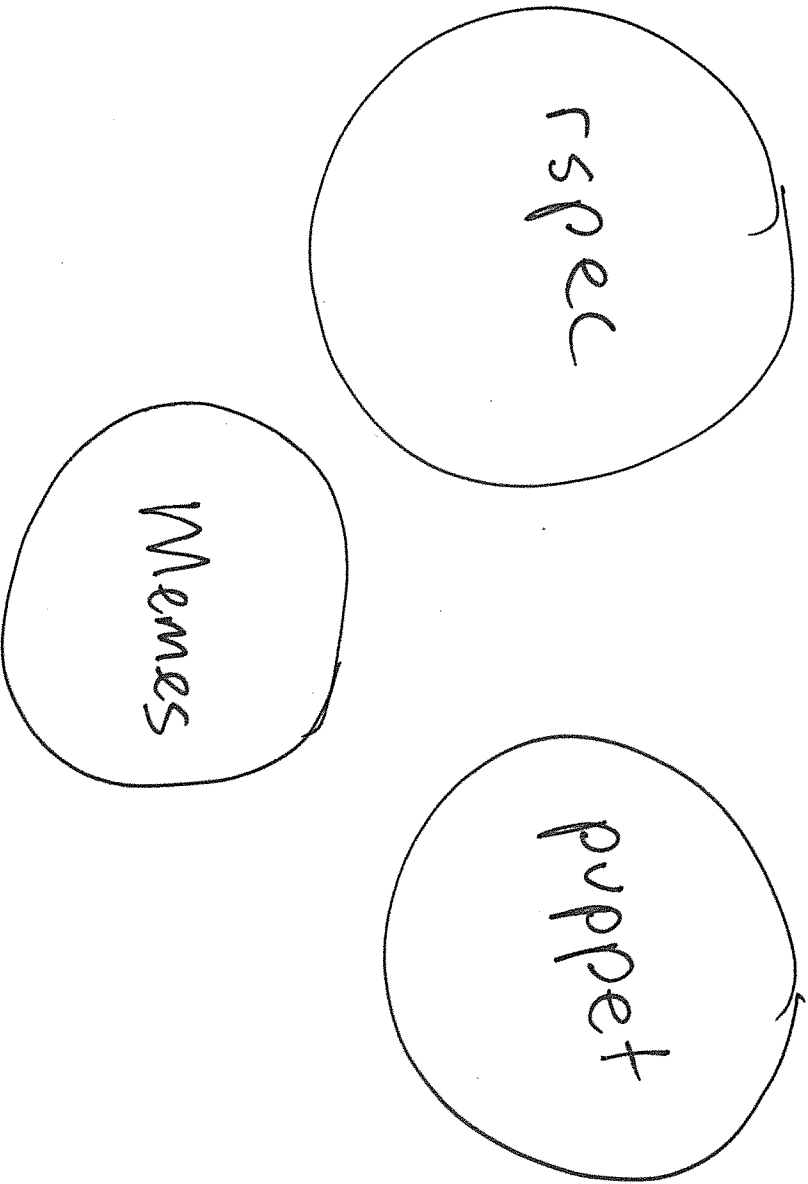
(Applause)

But Why Vagrant?

- It's awesome
- rspec - puppet confuses me
- cucumber - puppet, more so

Invalid Venn Diagram

Things I understand



Our setup currently

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

At a glance (2012, 01)

eggplant

JIRA
Confluence

lettuce

BIND
IPFS
Nagios

cabbage

blank?!

cucumber

Drupal
LDAP
MirrorBrain
Jenkins
Yum Repo
Debian Repo

kale

Jenkins slave

spinach

Jenkins slave

New services → Puppet!

Old services → Uh... well,
they work

$$P = m \cdot v$$

(momentum)

Still left to perpetize

- Drupal (LOCAL WUT)
- Apache virtual hosts
- Jira, Confluence (ov. ov. ov.)
- Nexus (Maven, ov. ov. ov.)
- Meetbot

- backups
- Jenkins-on-Jenkins
- Some legacy crons & scripts
- More Nagios alerts
- Postgres configs

But let's talk about

~~INTERSTRUCTURE!~~

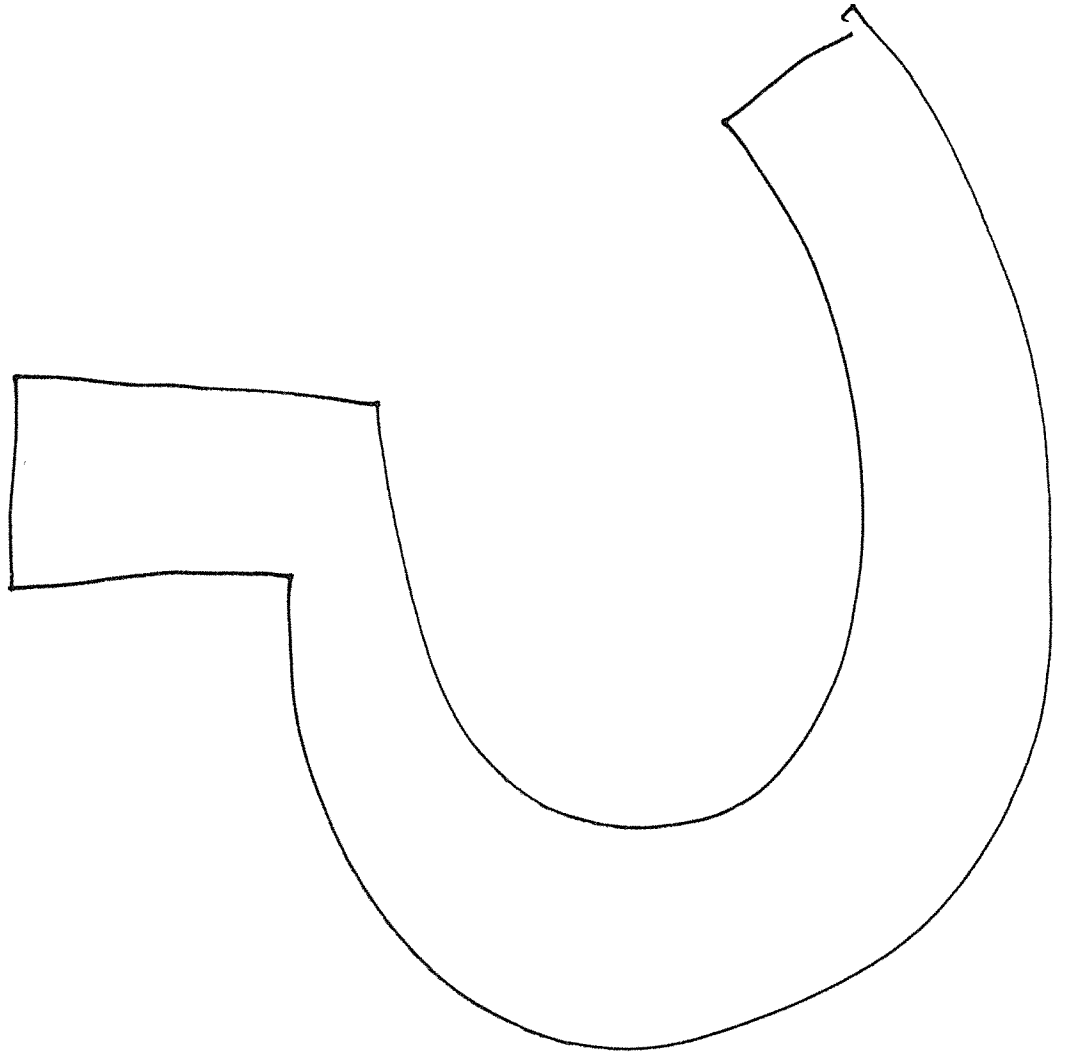
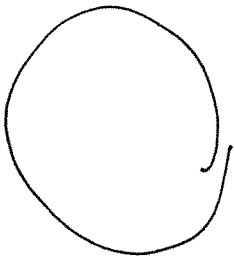
~~MEAN~~

~~POPP~~

Challenges!

Shared

Secrets?



data

Ext lookup

hiera

other?

Security /

Secrecy

hiera-gpg

other?

Integrating with

Git Hub

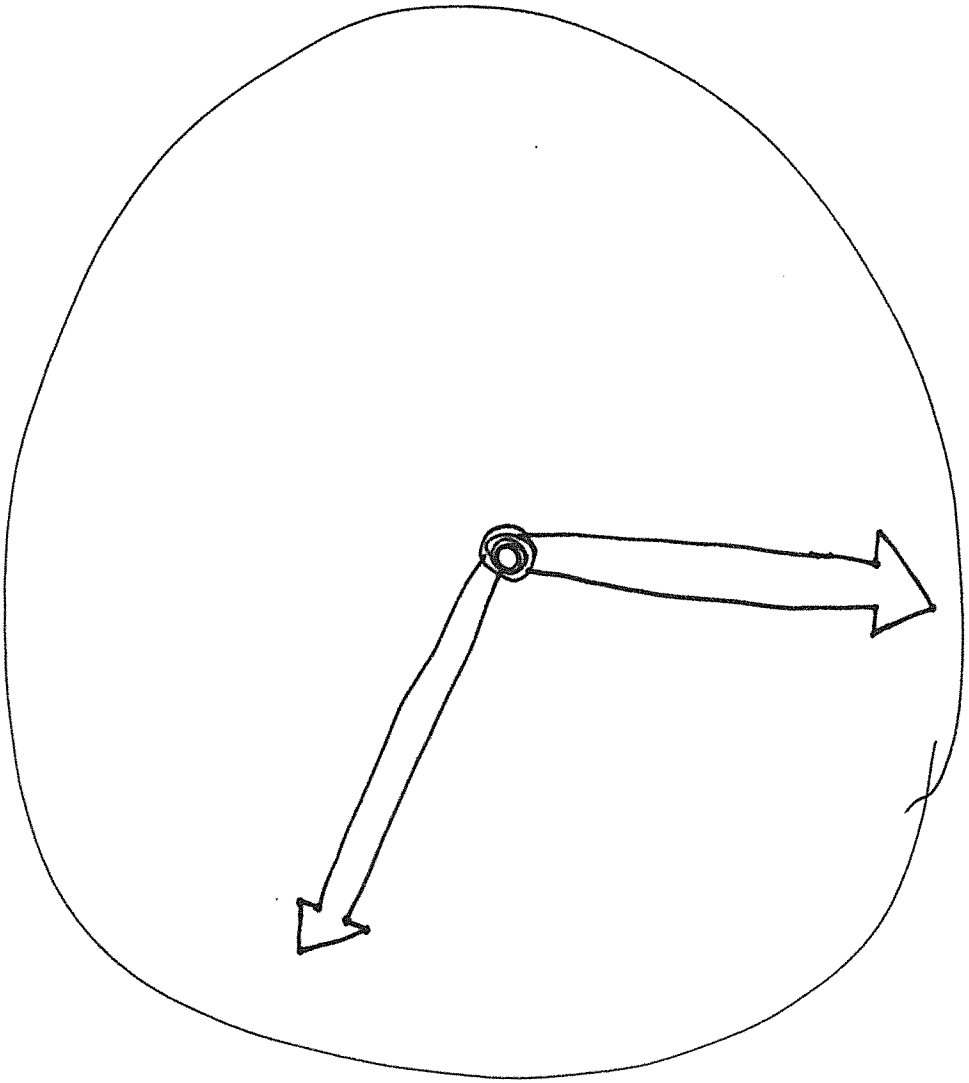
"jenkins-admin"
IRC bot

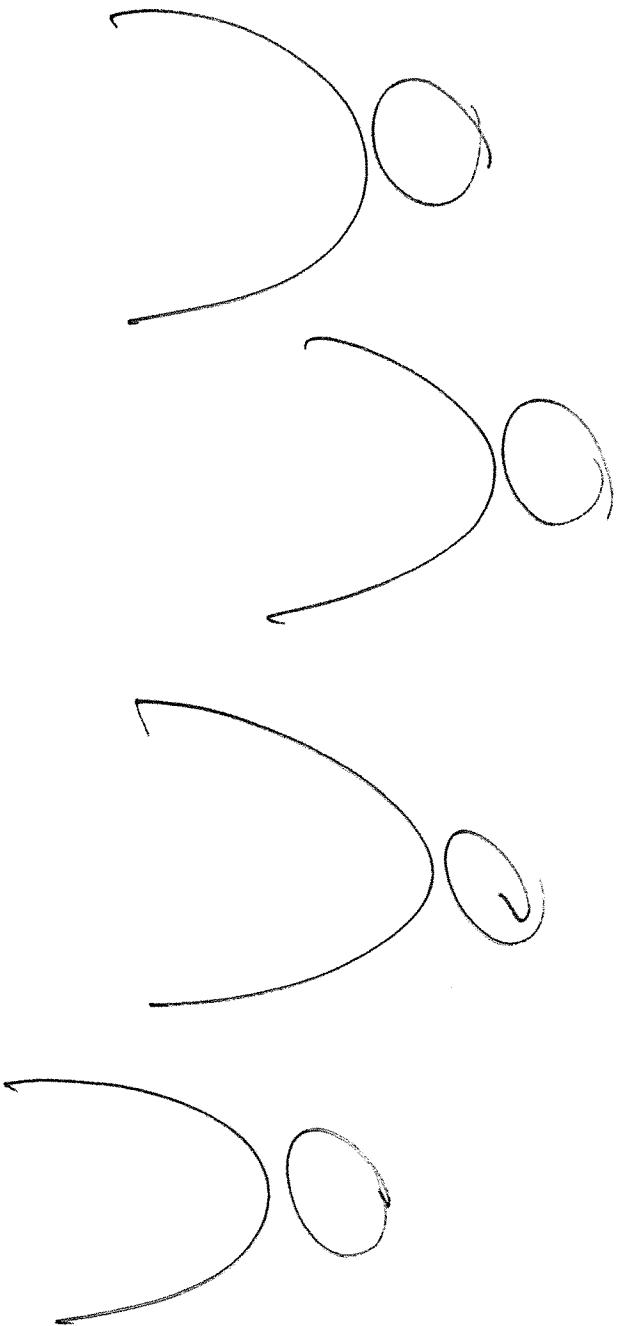
(jenkinsci/backend-ircbot)

"Pending Pull Requests"

(on wiki.jenkins-ci.org)

Time





people

Bonus
Material!

Go Daddy sucks.

-GR-

How I disappeared jenkins-ci.org
from the internet

Why isn't this Turing
complete?

KK learns to use
Puppet

