

# ARCHITECTING CHAOS

Konstantin Haase



**SATURDAY**

**KONSTANTIN HAASE**

***ARCHITECTING THE CHAOS***

*Basically a talk about the development of the Travis CI architecture, how an Open Source project without a clear team structure and initially no company behind it could become the build system for more than 36k projects without collapsing.*

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**SATURDAY**

**KONSTANTIN HAASE**

The background is a solid light blue color. In the upper left corner, there are several abstract splatters: a large, dense black one, a smaller white one to its left, and another white one further to the left near the edge. The word "ARCHITECTURE" is centered in the middle of the image in a black, sans-serif font.

ARCHITECTURE



CHAOS

PEOPLE

# HISTORY



# NON-CHRONOLOGICAL PRESENTATION



there is no right order









# TECHNICAL TALKS



# “TOUCHY FEELY” TALKS



THIS IS BOTH



THIS IS BOTH

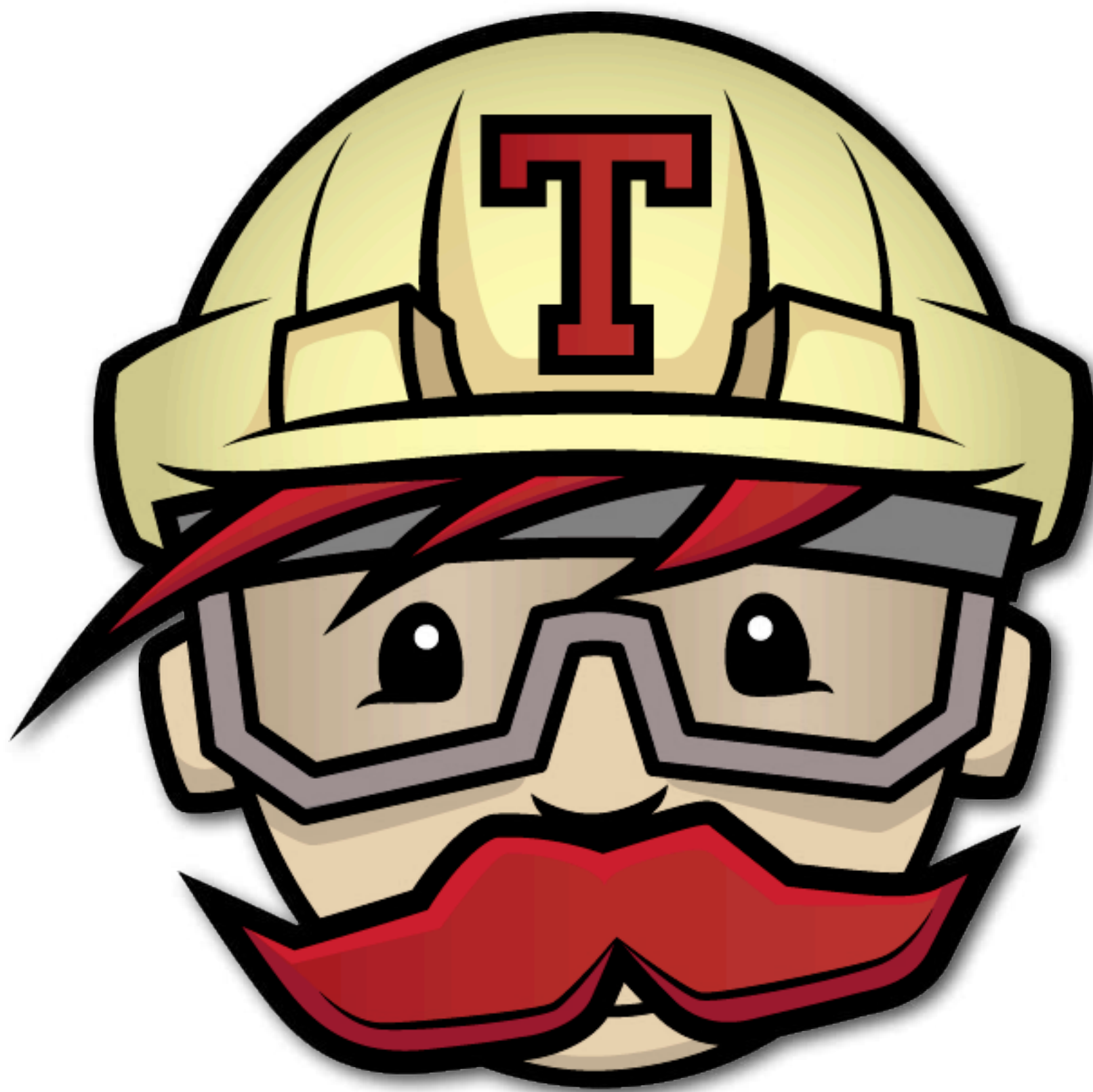
MAYBE





*For the code is dark and full of errors.*





# The Amazing Mustermann

---

build passing

coverage

100%

code climate

4.0

dependencies

none

gem version

0.1.0

*Make sure you view the correct docs: [latest release](#), [master](#).*

Welcome to [Mustermann](#). Mustermann is your personal string matching expert.



rkh opened this pull request 3 days ago

Edit

## implement build/job cancelling

No one is assigned 

No milestone 

merge after [travis-ci/travis-api#70](#) has been rolled out

✓ **Good to merge** — The Travis CI build passed ([Details](#))

2 participants



Travis CI - Free Hosted Co

https://travis-ci.org

Travis

Home

Blog

Status

Help

Travis CI for Private Repositories

Konstantin Haase

Search all repositories

My Repositories

Recent

✓

rubinius/rubinius

3530

⌚ 1 hr 20 min 27 sec, about an ho...

✓

travis-ci/travis-core

2454

⌚ 17 min 9 sec, about 8 hours ago

✓

rubymonsters/speak...

76

⌚ 2 min 56 sec, about 17 hours ago

✓

travis-ci/travis

239

⌚ 8 min 27 sec, about 17 hours ago

✗

travis-ci/travis-web

793

⌚ 17 min 32 sec, about 20 hours ago

✓

travis-ci/travis-api

663

⌚ 2 min 31 sec, about 24 hours ago

rubinius/rubinius

Rubinius, the Ruby Environment

Current

Build History

Pull Requests

Branch Summary

Build

State

Finished

Duration

Message

Config

✓ 3530

Passed

about an hour ago

1 hr 20 min 27 sec

Fix compile issues with GCC

-

Commit

Author

Committer

34aa8ff (master)

Dirkjan Bussink

Dirkjan Bussink

Build Matrix

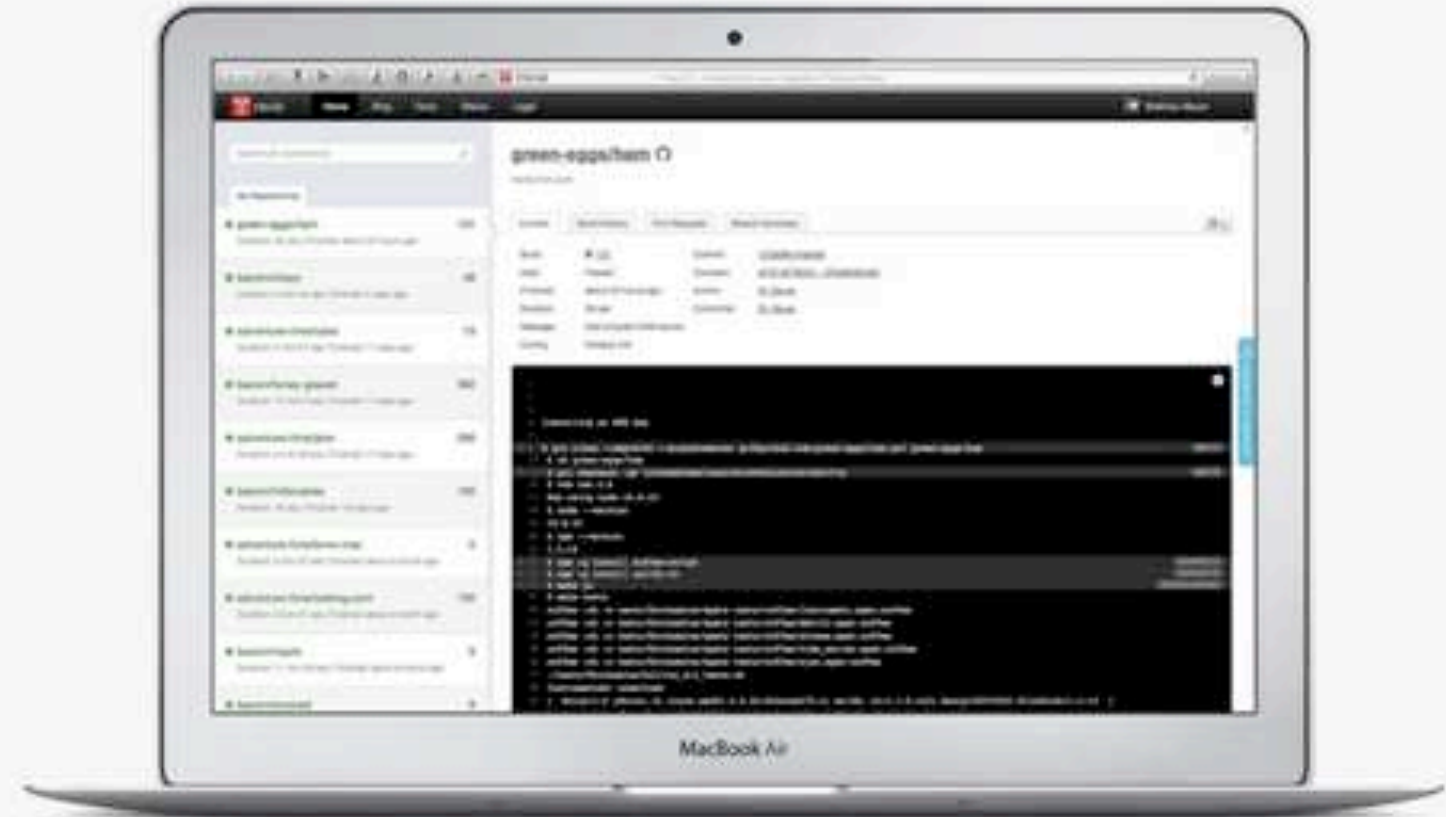
Job	Duration	Finished	Compiler	Rv
✓ <a href="#">3530.1</a>	21 min 5 sec	about an hour ago	gcc	1.8
✓ <a href="#">3530.2</a>	17 min 31 sec	about an hour ago	clang	1.8
✓ <a href="#">3530.3</a>	24 min 15 sec	about an hour ago	gcc	1.9
✓ <a href="#">3530.4</a>	17 min 36 sec	about an hour ago	clang	1.9



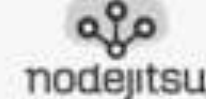
# Build Apps with Confidence

Focus on writing code. Let Travis CI take care of running your tests and deploying your apps.

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Trusted By



## Easy Setup

Getting started with Travis CI is as easy as enabling a project, adding basic build instructions to your project and

## Supports Your Platform

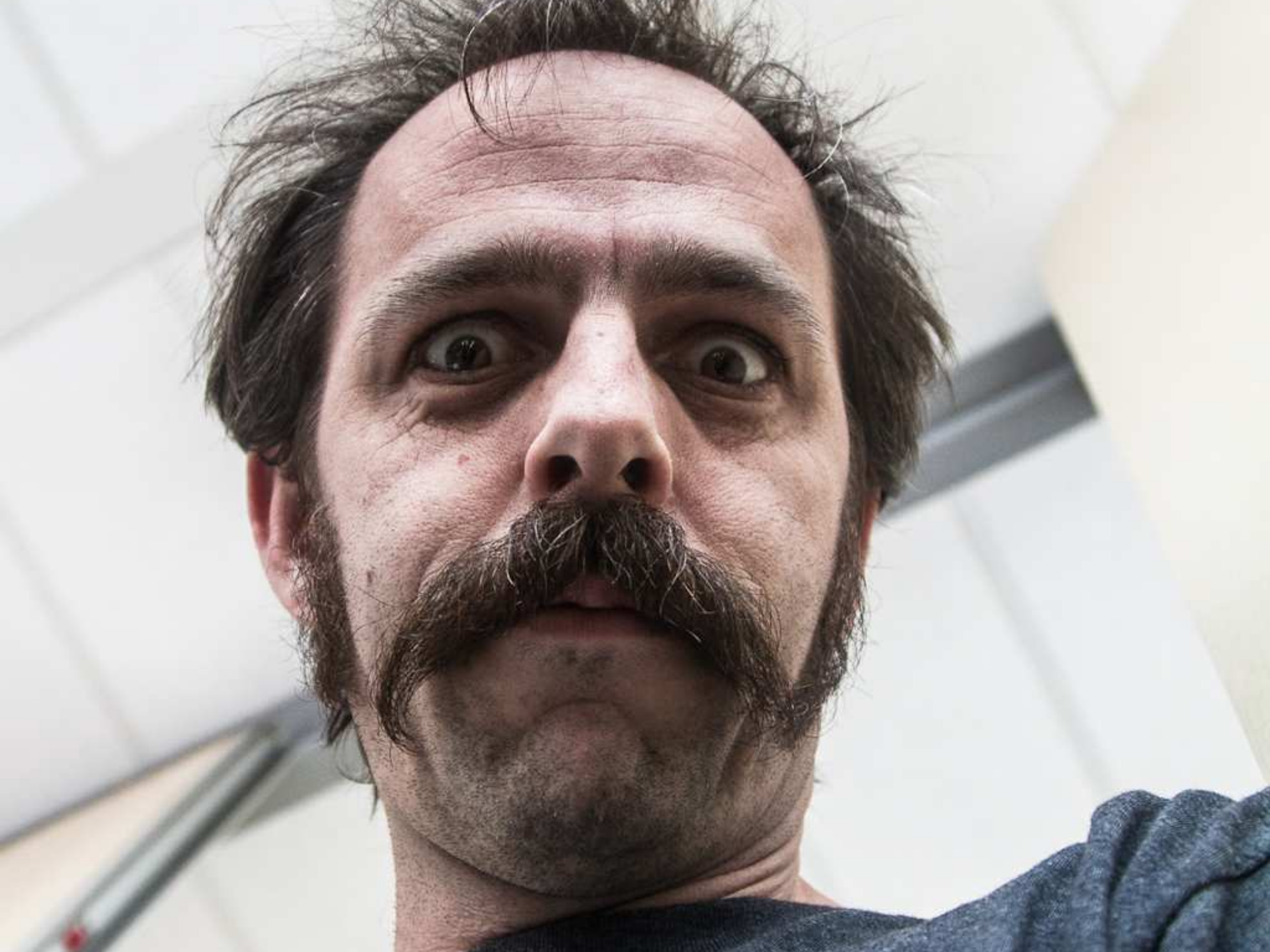
Lots of databases and services are pre-installed and can simply be enabled in your build configuration, we'll launch

## Deploy With Confidence

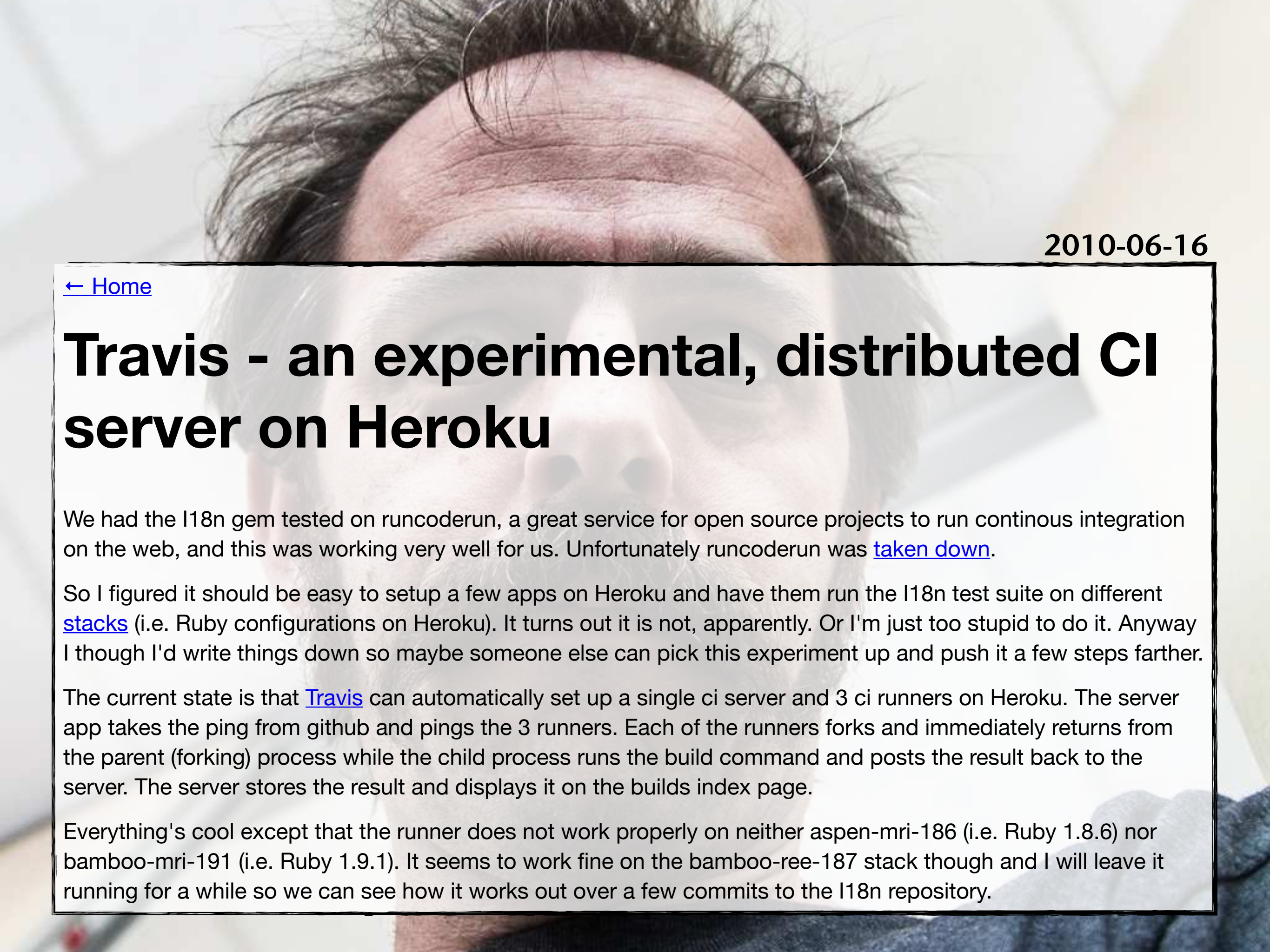
Deploying to production after a successful build is as easy as configuring your Heroku credentials, we'll ship your code











2010-06-16

[← Home](#)

# Travis - an experimental, distributed CI server on Heroku


We had the l18n gem tested on runcoderun, a great service for open source projects to run continuous integration on the web, and this was working very well for us. Unfortunately runcoderun was [taken down](#).

So I figured it should be easy to setup a few apps on Heroku and have them run the l18n test suite on different [stacks](#) (i.e. Ruby configurations on Heroku). It turns out it is not, apparently. Or I'm just too stupid to do it. Anyway I thought I'd write things down so maybe someone else can pick this experiment up and push it a few steps farther.

The current state is that [Travis](#) can automatically set up a single ci server and 3 ci runners on Heroku. The server app takes the ping from github and pings the 3 runners. Each of the runners forks and immediately returns from the parent (forking) process while the child process runs the build command and posts the result back to the server. The server stores the result and displays it on the builds index page.

Everything's cool except that the runner does not work properly on neither aspen-mri-186 (i.e. Ruby 1.8.6) nor bamboo-mri-191 (i.e. Ruby 1.9.1). It seems to work fine on the bamboo-ree-187 stack though and I will leave it running for a while so we can see how it works out over a few commits to the l18n repository.





2011-02-05

[← Home](#)

# Travis - a distributed build server tool for the Ruby community

So, I've started playing with the idea of a distributed build server tool once again in last year's December ... and [Travis](#) is what I came up with.

## Status quo

- Travis is currently running on <http://travis.heroku.com> and already notifies me about builds that pass or fail when someone pushes to those repositories I've registered for testing purposes.
- The builds run on a virtual server that [Julian Fischer](#) has very kindly granted for this experiment.
- The frontend is implemented using [Backbone.js](#).
- Build output and status information is “tailed” from the workers to the frontend (i.e. browsers) using websockets via [Pusher](#). It is also pushed back to application (running on Heroku) using a standard REST API.

All of these building blocks might change in the future, but here's an [overview](#) of how they currently work together. And here's a short screencast (the UI has changed a bit in the meanwhile but you'll get the idea): [1:20 quick demo screencast](#).

more than

# 15 Programming Languages with **multiple** implementations

Three different JVMs, GCC & clang, Six Erlang versions, Clojure, Go, Groovy, Three Node.js versions, Haskell, Four Perl versions, Four Python versions plus PyPy, Two PHP versions, Ten (!) different Ruby versions/implementations, Two Scala versions, anything that runs on Linux

GUI and Browser Testing (headless X11, Firefox and Chrome), with PhantomJS, Selenium, etc.

MySQL, PostgreSQL, MongoDB, CouchDB, Redis, Riak, RabbitMQ, Memcached, Cassandra, Neo4J, ElasticSearch, Kestrel, SQLite, full root access, custom build steps, 3rd-party PPAs

Notifications per Email, IRC, GitHub, Campfire, HipChat, Flowdock, Pusher, Web hook



more than

**7,300,000** Test Suits

**70,000** Open Source Projects

more than **1,500,000** Test Suits, **4,000** Private Projects

*for free*

more than

**7,300,000** Test Suites

**70,000** Open Source Projects


travis-ci

GitHub, Inc. [US] <https://github.com/travis-ci>

github Search or Type a Command Explore Gist Blog Help

rkx

Fork me on GitHub



**travis-ci**

Joined on Feb 26, 2011

**35** public repos **1** private repo **42** members

**Repositories** Members Edit travis-ci's Profile

Find a Repository...

All Public Private Sources Forks Mirrors

**travis-web** JavaScript ★ 31 6  
Next generation ember client for Travis CI  
Last updated an hour ago

**travis-enqueue** Ruby ★ 0 0  
Last updated 5 hours ago

**travis-support** Ruby ★ 13 5  
Support classes and extensions used in travis-ci  
Last updated 5 hours ago

**travis-ci.github.com** Ruby ★ 97 77  
the official Travis CI blog & documentation website

**100%** Open Source

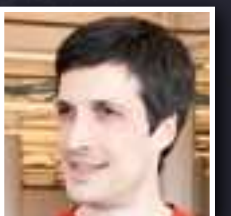


**“What Github did for sharing code, Travis CI will do for testing code. The value of this service cannot be overstated.**

**Travis CI is a paradigm shift.**

**The world will be a better place when every open-source developer is running their test suite on Travis CI.”**

**Brian Ford**  
Lead Developer, Rubinius  
Engine Yard





# Introducing Continuous Deployment to Heroku



Konstantin Haase, 9 Jul 2013

Are you testing your [Heroku](#) application on Travis CI? Then we've got some amazing news for you: Deploying that application after a passing build has just become incredibly easy!

Here is what you need to add to your app's `.travis.yml`:

```
deploy:
  provider: heroku
  app: your-app-name # optional if it's the same as your repo name
  api_key: "YOUR API TOKEN"
```

You should also encrypt your token (at least if you use this on a public repository).

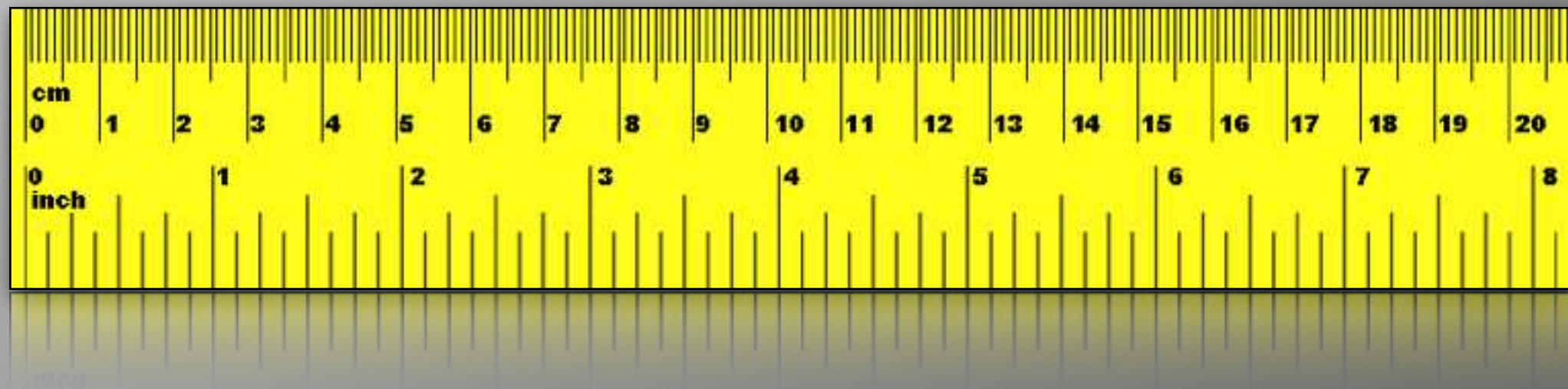
If you have the [travis](#) tool installed, try the following:



## heroku

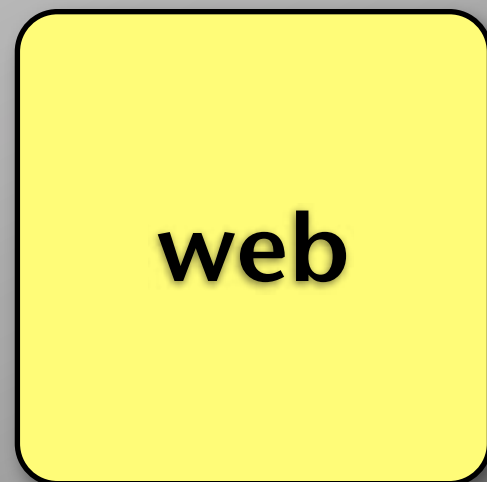
Heroku is not just a happy [Travis Pro](#) customer, but also one of our amazing sponsors!

# scalability is not optional

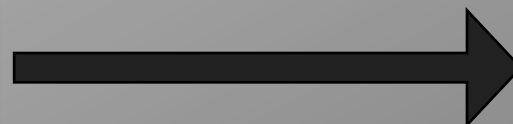
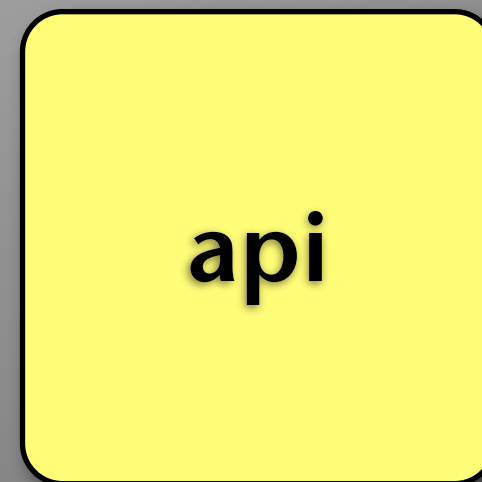


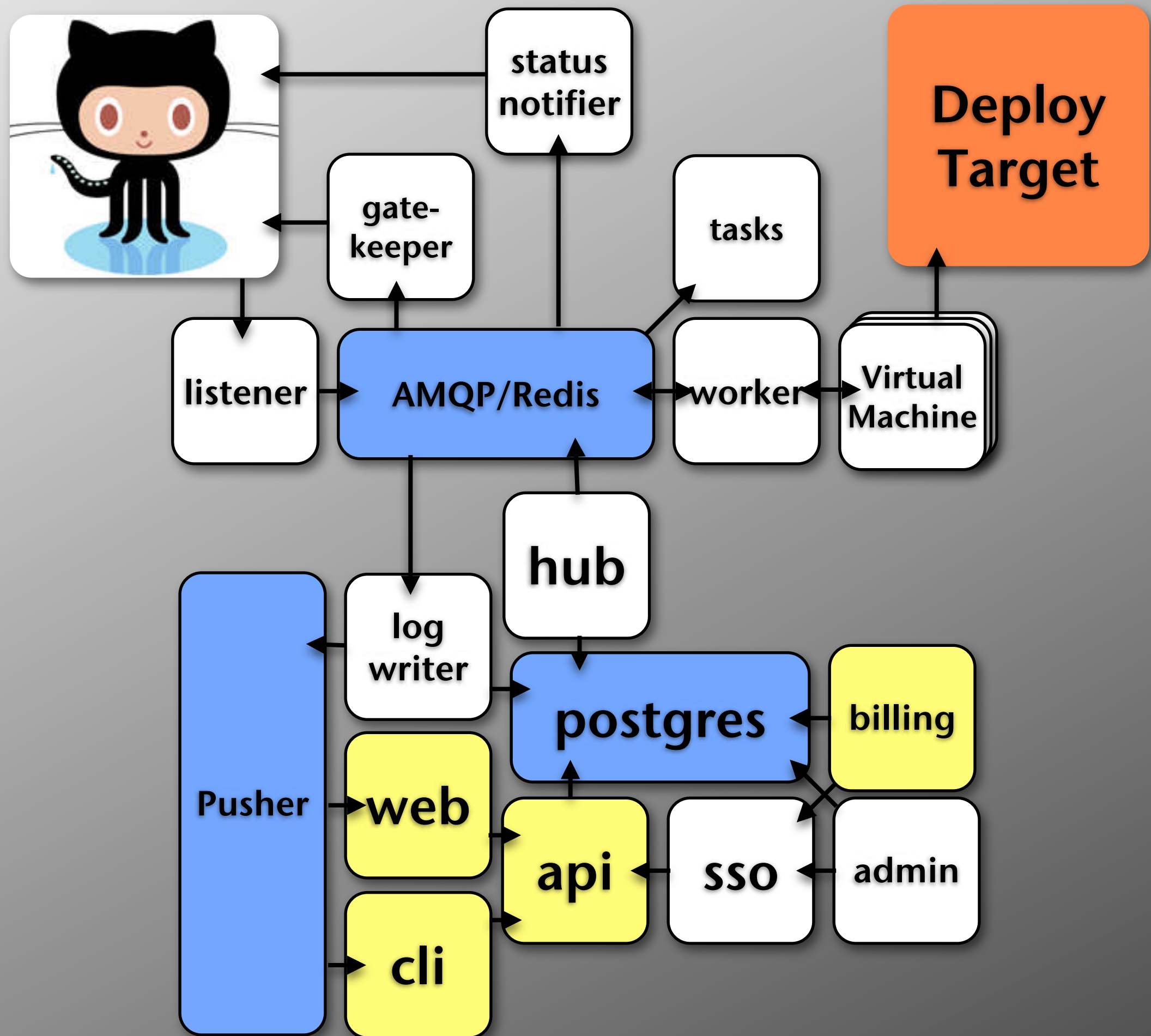


**travis-ci.org**



**api.travis-ci.org**







**Horse ebooks**

@Horse\_ebooks



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Unfortunately, as you probably already know, people



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Retweet



Favorite



Buffer



More

**3,377**

RETWEETS

**1,957**

FAVORITES



9:41 AM - 25 Jul 12

people are|



people are **awesome**

people are **stupid**

people are **strange**

people are **often unreasonable**

people are **crazy**

people are **people**

people are **awesome 2013**

people are **people shoes**

people are **awesome girls**

people are **dumb**





PUBLIC



zenorocha / jquery-boilerplate

build status unknown

Watch

Star

808

Fork

145

Code

Network

Pull Requests 3

Issues 10

Wiki

Graphs

Closed

rwldrn wants to merge 1 commit into zenorocha:master from rwldrn:reset-this-crap

146

#10

Discussion

Commits 1

Files Changed 4



rwldrn opened this pull request a year ago

**Everything is wrong, so deleted all of it, this way you can start over and do it right.**

No one is assigned

No milestone

No description given.

4 participants



rwldrn added a commit

a year ago



rwldrn

Everything is wrong, so deleted all of it, this way you can start ove...



fb6b431

Closed



rwldrn closed the pull request a year ago

Search

1 personal result, 161,000 other results...

Web

Images

Maps

Videos

News

Shopping

More

Any time

Past 24 hours

Past week

Custom range...

All results









people seem like speaking for the project

who is the project?



people build amazing things

like, oh my god, this is amazing

the broader the group, the lower the  
barrier, the greater the chaos



this is good



have an architecture that  
works well with chaos





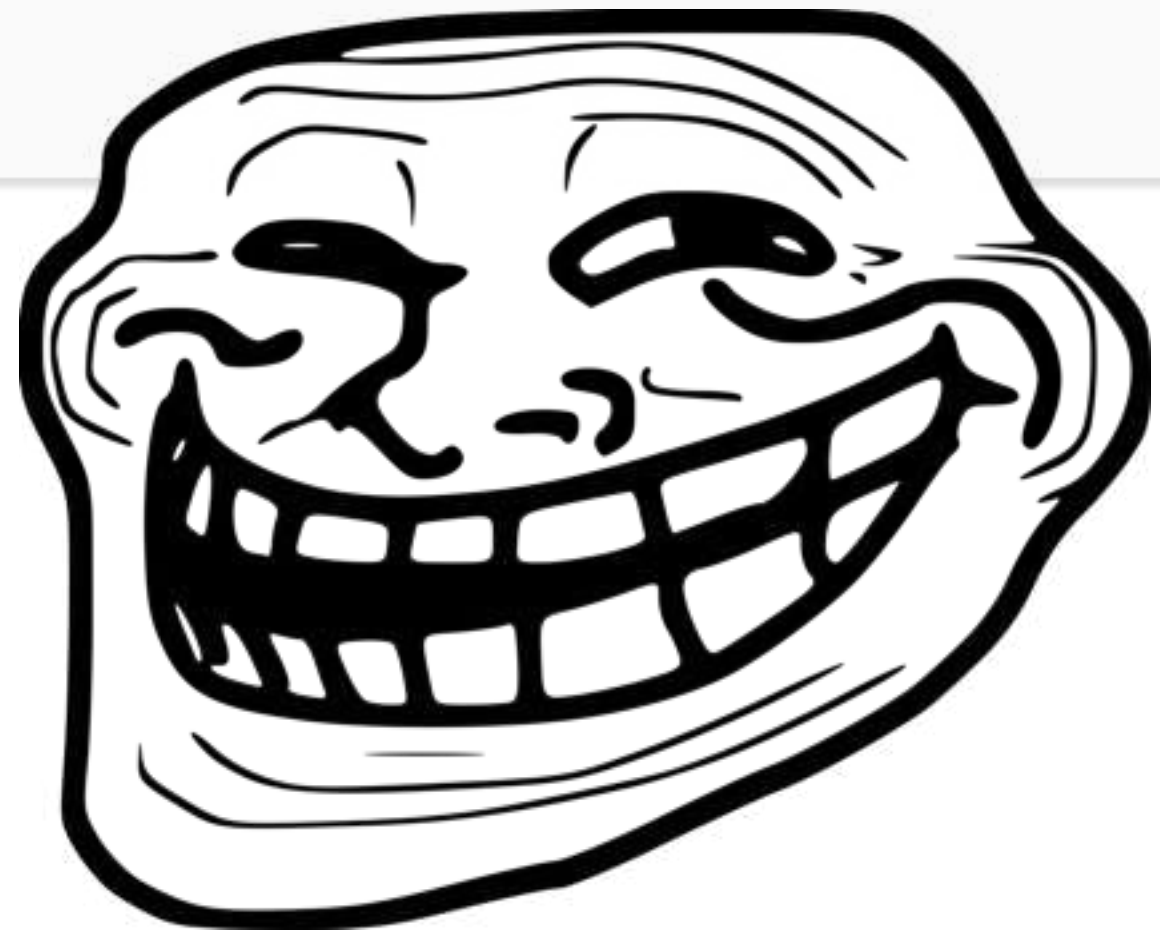
# HISTORY

I grew up in Europe, where  
the history comes from.

**Eddie Izzard**

I grew up in Europe, where the history comes from.

**Eddie Izzard**











North  
Sea

Baltic  
Sea

Hamburg

West  
Berlin

East  
Berlin



East Berlin

THE  
NETHERLANDS

WEST  
GERMANY

EAST  
GERMANY

POLAND

BELGIUM

Bonn

Dresden

CZECHOSLOVAKIA

LUXEMBOURG

Frankfurt

NCE

Munich

AUSTRIA













SECTEUR

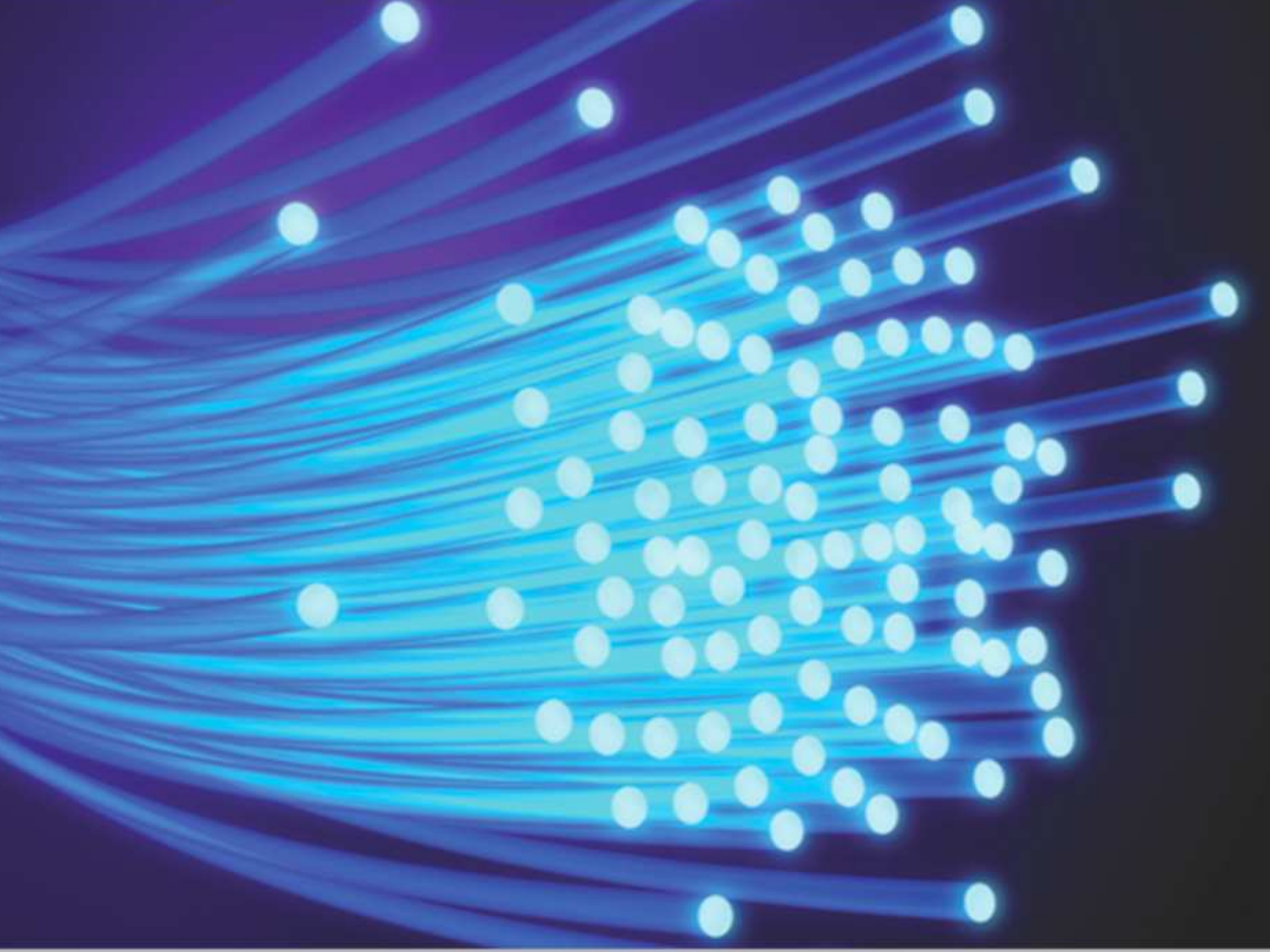


















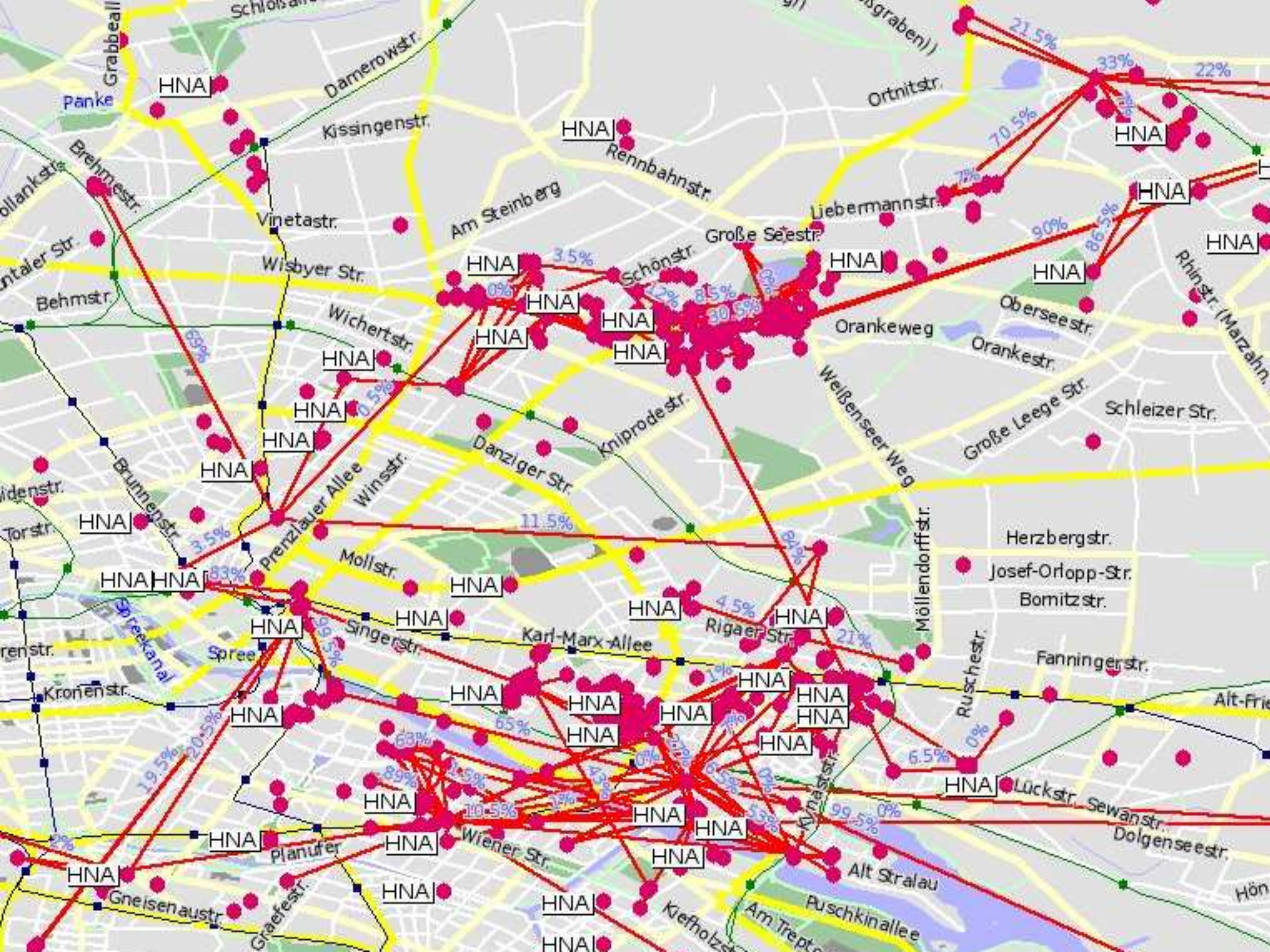
**INTERNET**



**Y U SO SLOW?**





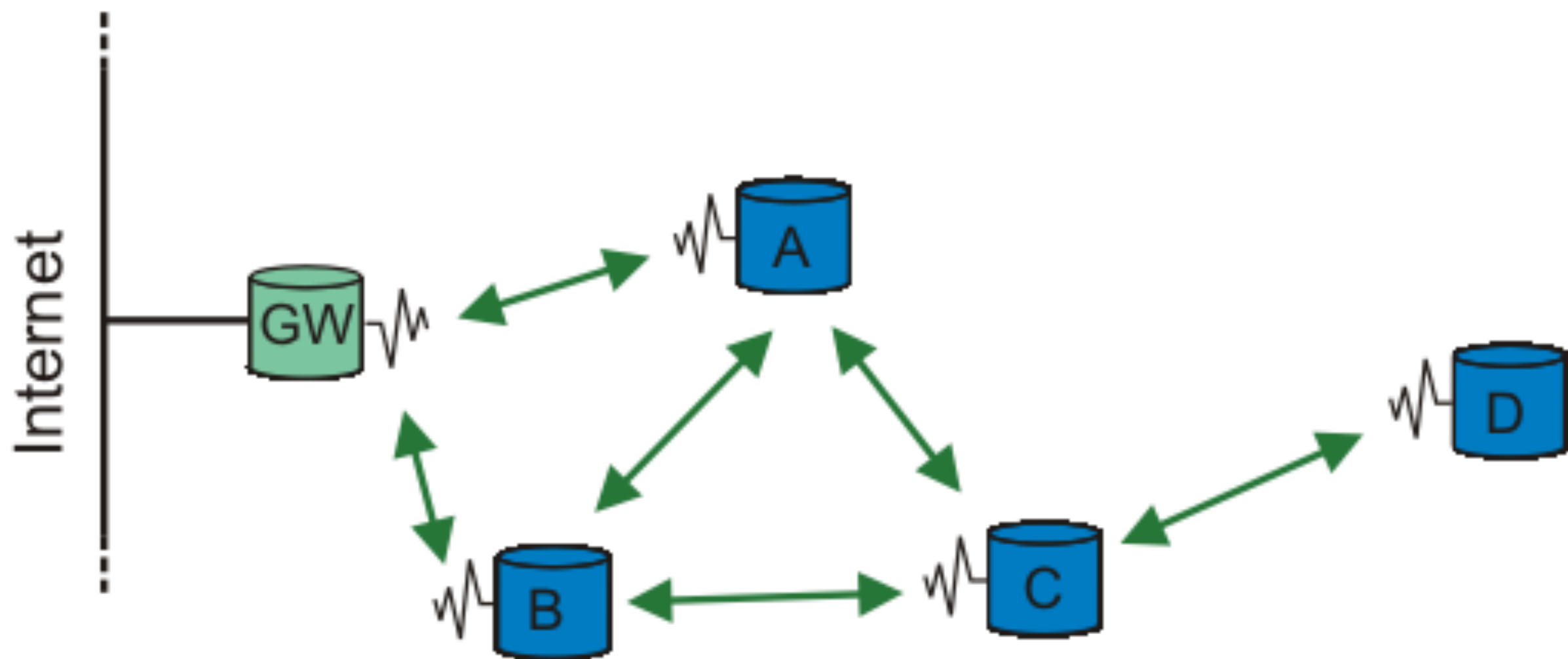






CHAOS?

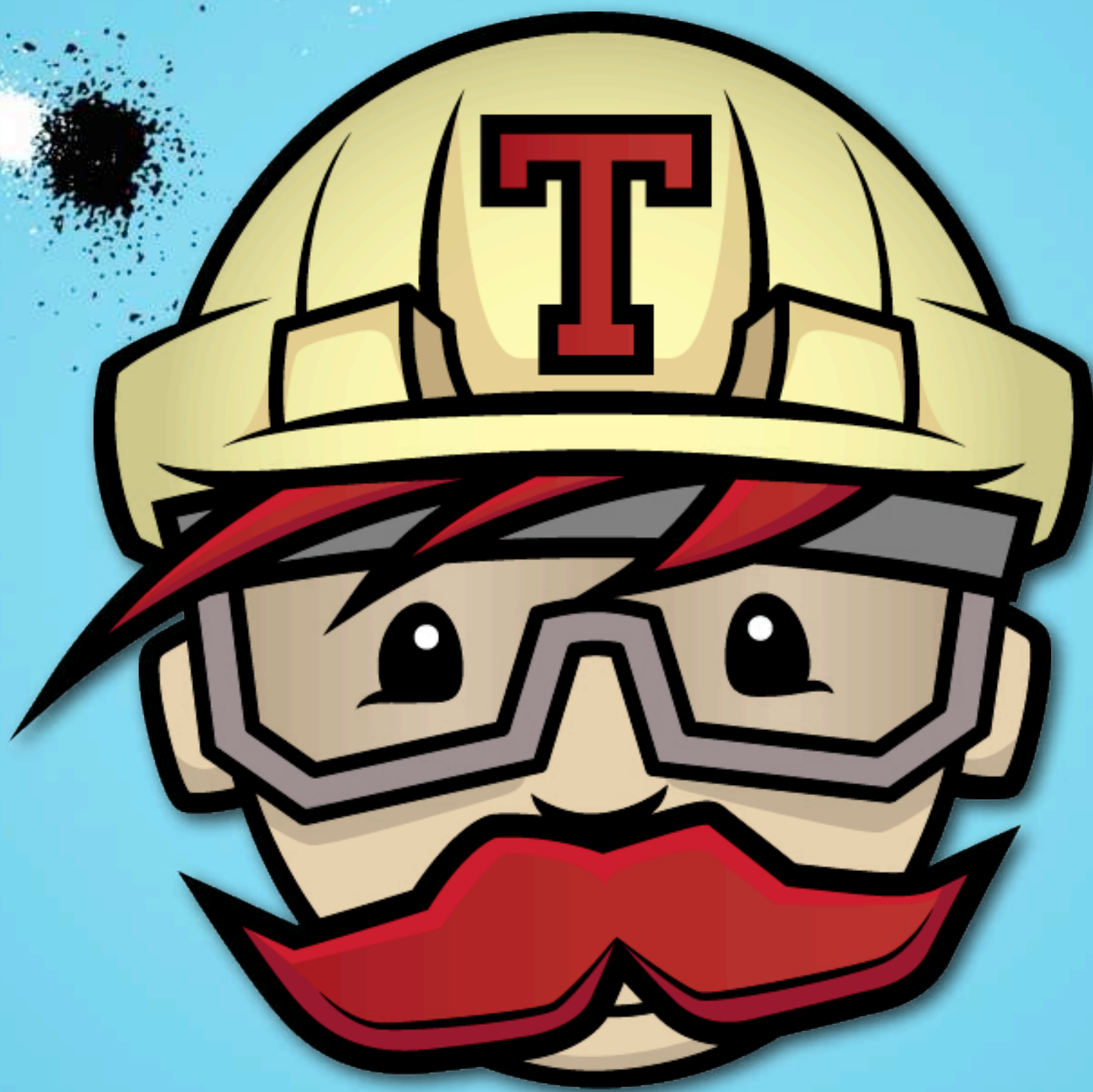






CHAOS!





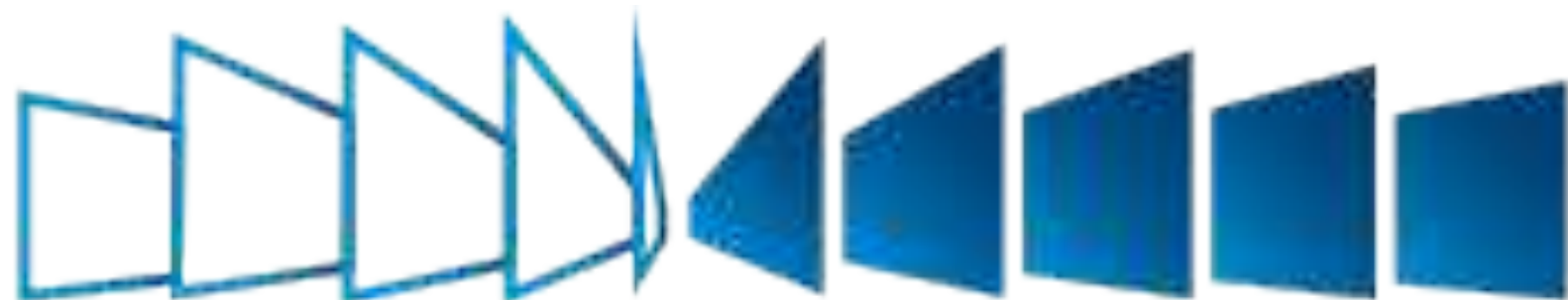
mozilla



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**O P E N S H I F T™**

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Aaron1011 (Aaron)

GitHub, Inc. [US]

https://github.com/Aaron1011




Search or type a command

Explore

Gist

Blog

Help



Aaron

Aaron1011

<> Python, Ruby, JavaScript


✉ aa1ronham@gmail.com

Contributions

Repositories

Public Activity

Popular repositories




time-lapse-photography

Time lapse photography program written...

46

★




PythonUnitConverter

A Python project to convert units of mea...

1

★




ubuntu-irc

An IRC client - for Ubuntu Touch!

1

★




travis-ci.github.com

The Travis CI blog & documentation web...

0

★



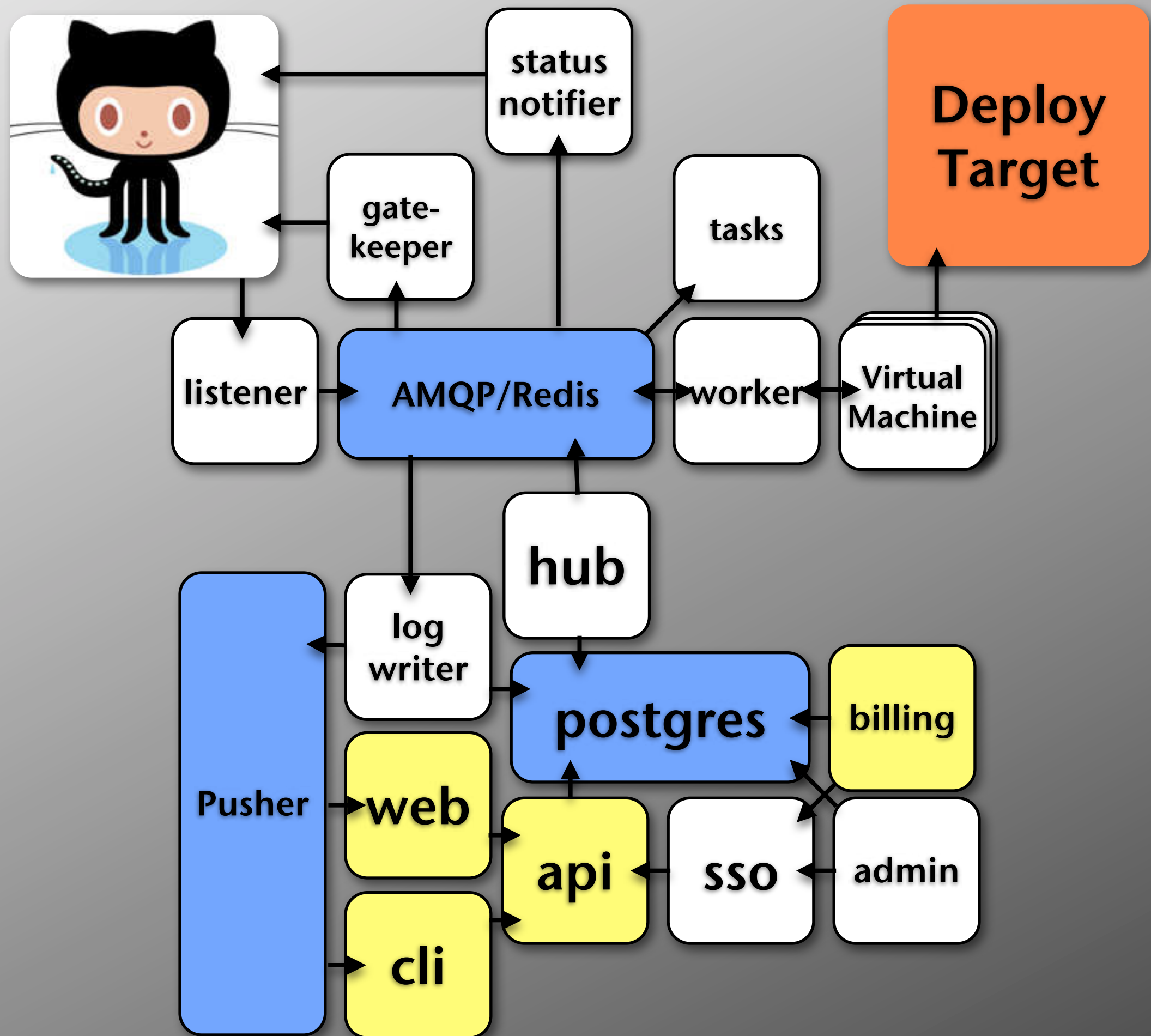
dpl

0

★

Public contributions







**I HAVE NO IDEA WHAT I'M DOING**



**travis setup openshift**

**travis-ci/travis**



**generate configuration**

**travis-ci/travis-hub**



**generate build script**

**travis-ci/travis-build**



**run build on VM**

**travis-ci/travis-worker**



**depoly to openshift**

**rkh/dpl**

Aaron1011 (Aaron)


←

→

↺

GitHub, Inc. [US]

https://github.com/Aaron1011



Search or type a command

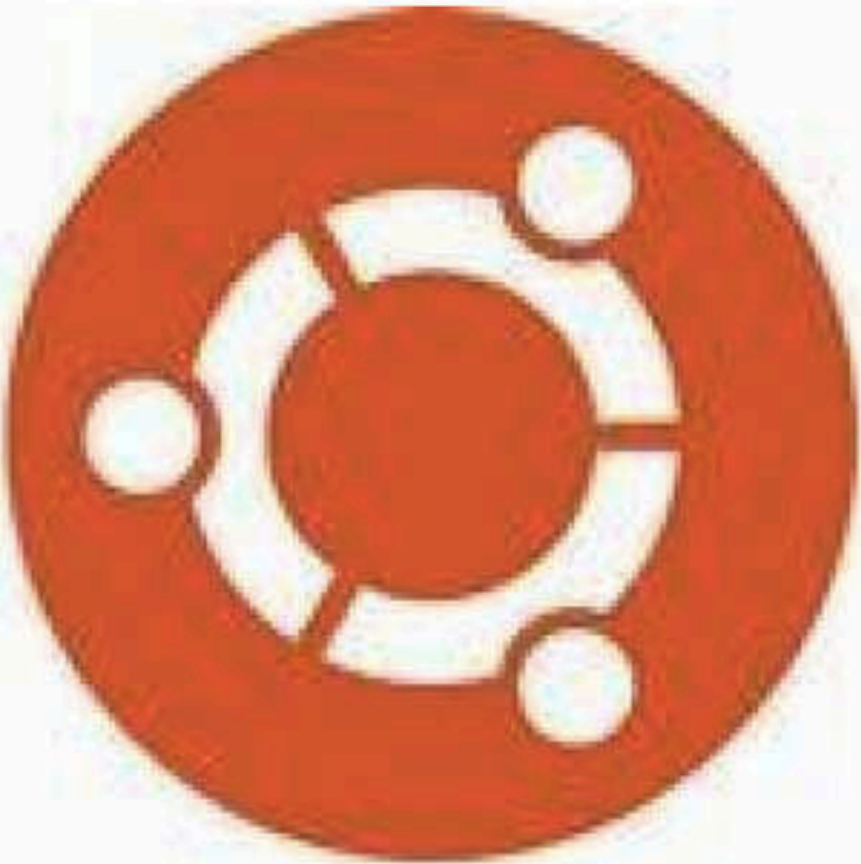
?

Explore

Gist

Blog

Help



Aaron

Aaron1011

<> Python, Ruby, JavaScript

✉ aa1ronham@gmail.com

+

Contributions

📁

Repositories

🔔

Public Activity

Popular repositories

📁

time-lapse-photography

46 ★

Time lapse photography program written...

📁

PythonUnitConverter

1 ★

A Python project to convert units of mea...

📁

ubuntu-irc

1 ★

An IRC client - for Ubuntu Touch!

📁

travis-ci.github.com

0 ★

The Travis CI blog & documentation web...

📁

dpl

0 ★

Public contributions



Added support for Openshift

GitHub, Inc. [US]https://github.com/rkh/dpl/pull/5

GitHub

This repository

Search or type a command

ExploreGistBlogHelp

rkh

rkh / dpl

build passing

Unwatch

8

Unstar

22

Fork

Merged

rkh merged 1 commit into rkh:master from Aaron1011:openshift 29 days ago

131

#5

Discussion

Commits1

Files Changed4

Aaron1011 opened this pull request a month ago

Edit

Added support for Openshift

No one is assigned

No milestone

No description given.

2 participants

Aaron1011 added a commit

a month ago

Aaron1011

Added support for Openshift

e8d2760

rkh commented

a month ago

<3 now I need to set up an OpenShift application to try this!

**25 Pull Requests**



12 years old  
aka “almost 13”















**I WANT YOU**  
**TO GO OPEN SOURCE**

NEAREST SOFTWARE RESPOSITORY

**“When you don't create things,  
you become defined by your  
tastes rather than ability.**

**Your tastes only narrow  
and exclude people.**

**So create.”**

**why the lucky stiff**  
Ruby Art Project  
by Jonathan G.





**@konstantinhaase**

**github.com/rkh**

**rkh.im**