

THE SUPER SPECTACULAR AMAZING
MAGNIFICENT STUNNING

SEAGL 2017 LIGHTNING TALKS



SeaGL

MOLLY DE BLANC

MY LEAST FAVORITE
PHRASES IN
FREE SOFTWARE



SeaGL

My least favorite phrases in free software

(In no particular order)

1. “I want to make a free software license...”



2. “Have you checked out the documentation?”



3. “How do you make money on free software?”



4. “But Twitter is...”



5. “But Facebook is...”



6. “We’re not here to make things easy for people—freedom is more important than making things easy for people.”



7. “I want to make a free software license, but...”



Bonus

Me: Well, I'm not technical...

Some dude: <talks in depth about the technical aspects of what they do / are into."

Bonus

Names that are ridiculous / offensive

Thanks!

SRIRAM RAMKRISHNA

THE TRIUMPH OF COMMUNITY



SeaGL

Triumph of Community GNOME Trademark Battle

Sriram Ramkrishna



Houston, We Got Problems

**Groupon had a point of sale
product called G-NOME**



Things Gets Murky

**Needed \$60k to fight off the
trademark applications**



OMG! We Need Help!

**GNOME reached out to the
Internet for help – raise
money to fight off the
applications**



Holy Smokes! It worked?!

Raised over 100k in 3 days

**All trademark applicants
canceled**

Legal Precedent established



We Will Mess You Up!

**Don't Mess with Free
Software**

Our Community is Watching



Thank You!



BENNO RICE

THE TRAGEDY OF SYSTEMD



SeaGL

THE TRAGEDY OF SYSTEMD

**SYSTEMD THE
SOFTWARE**

SYSTEMD THE CONCEPT

CHANGE

CHANGE IS HARD



poettering commented on Jun 29

Owner

Yes, as you found out "Oday" is not a valid username. I wonder which tool permitted you to create it in the first place. Note that not permitting numeric first characters is done on purpose: to avoid ambiguities between numeric UID and textual user names.

systemd will validate all configuration data you drop at it, making it hard to generate invalid configuration. Hence, yes, it's a feature that we don't permit invalid user names, and I'd consider it a limitation of xinetd that it doesn't refuse an invalid username.

So, yeah, I don't think there's anything to fix in systemd here. I understand this is annoying, but still: the username is clearly not valid.

I hope that makes sense?



40



poettering closed this on Jun 29



poettering added the **not-a-bug** label on Jun 29



poettering commented on Jul 2

Owner

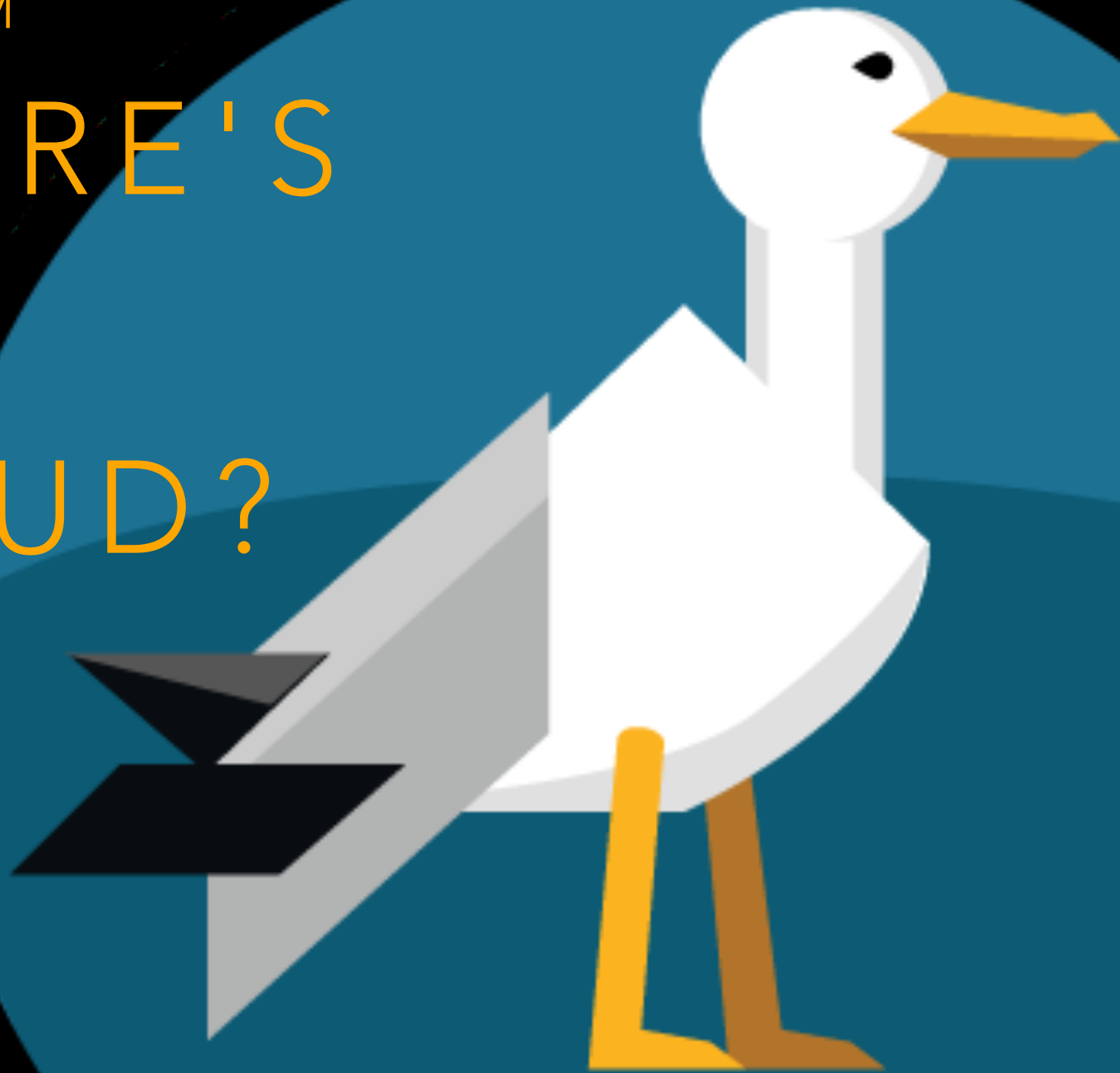
Just to summarize things:

1. systemd is not the one coming up with the restrictions on user names, and while some distributions are less restrictive, many do enforce the same restrictions as we do. In order to make systemd unit files portable between systems we'll hence enforce something that resembles more the universally accepted set, rather than accept the most liberal set possible.
2. User= in unit files is about system users, not regular users, and I am pretty sure we should enforce a stricter regime about system users than regular users.
3. In systemd we generally follow the rule that when we encounter a unit setting that does not validate syntax-wise we'll log about it and ignore it, for compat reasons. We do the same for User= here as for all other options. Note that if you specify a valid user name but where the user doesn't exist, then we'll instead fail the service on start, because in that case there's not just something wrong with the syntax the service author used but actually something inconsistent on the system, and that should be considered fatal.

THE TRAGEDY

E. DUNHAM

WHERE'S THE CLOUD?



SeaGL

Where's The Cloud?

seagl2017@edunham.net

@QEDunham

talks.edunham.net/seagl2017







Photo by Edmund Garman, <https://www.flickr.com/photos/3cl/5975465375>

cloud

/klaʊd/ 

verb

2. make or become less clear or transparent.

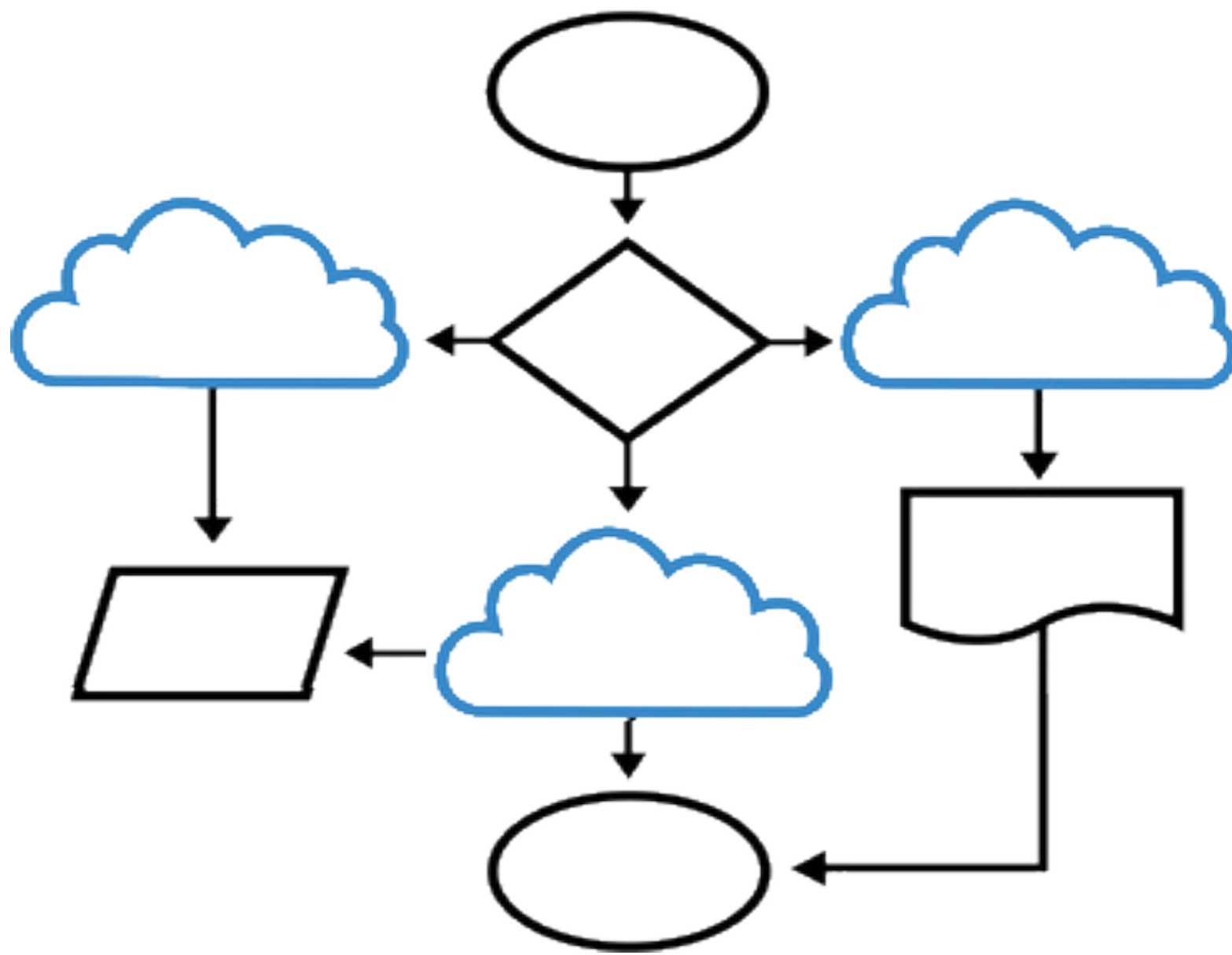
"blood pumped out, clouding the water"

synonyms: make cloudy, make murky, **dirty**, **darken**, **blacken**

"the sand is churned up, clouding the water"

FOR LEASE

127.0.0.1

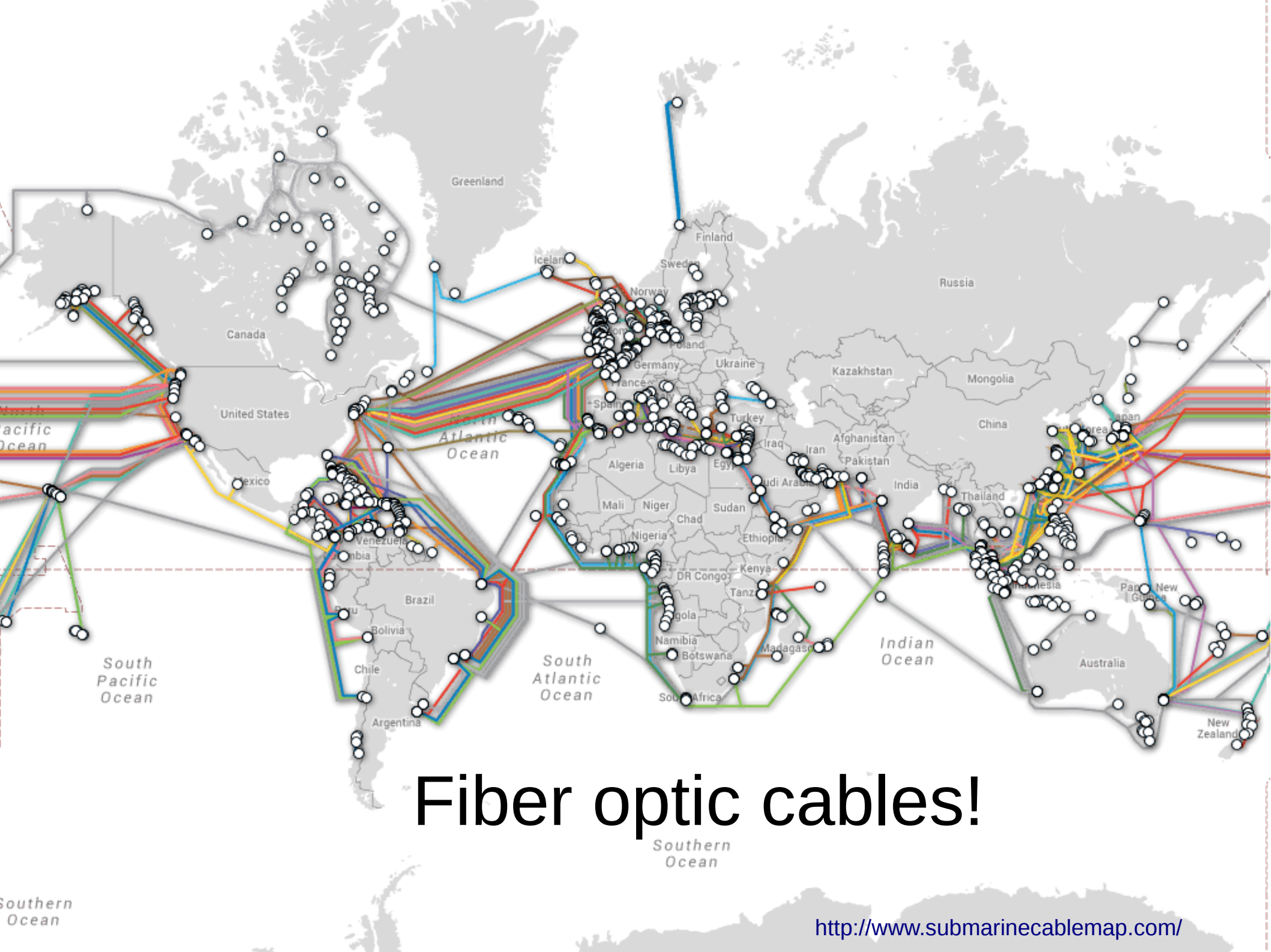






This image is the property of Leonardo Rizzi www.flickr.com/photos/29479498@N05/

The original image can be seen at the url: www.flickr.com/photos/stars6/4381851322/



Fiber optic cables!

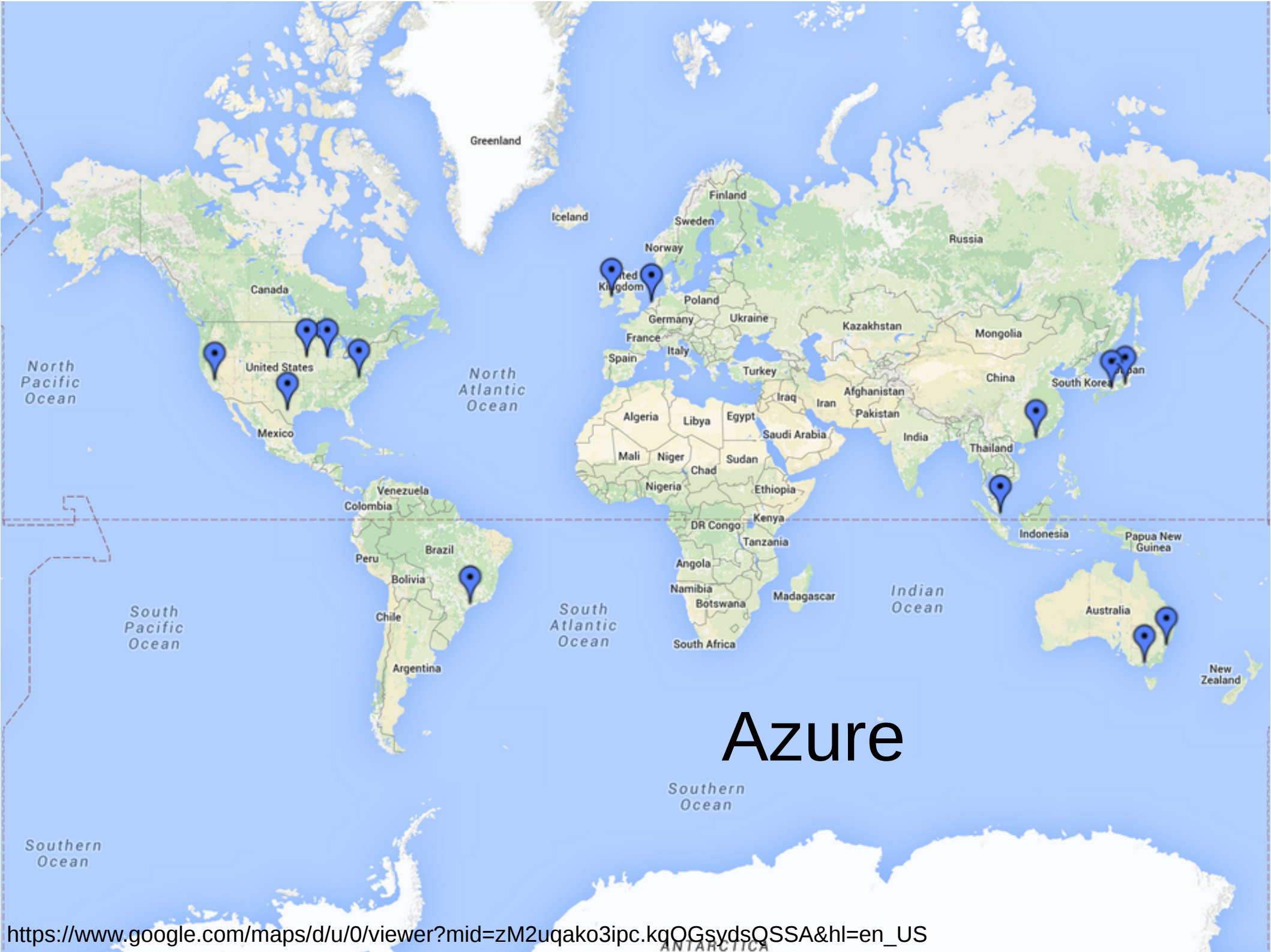


Karl Magnus with a test-packet.
http://www.blug.linux.no/rfc1149/vegard_bilder/





AWS



Azure



DigitalOcean



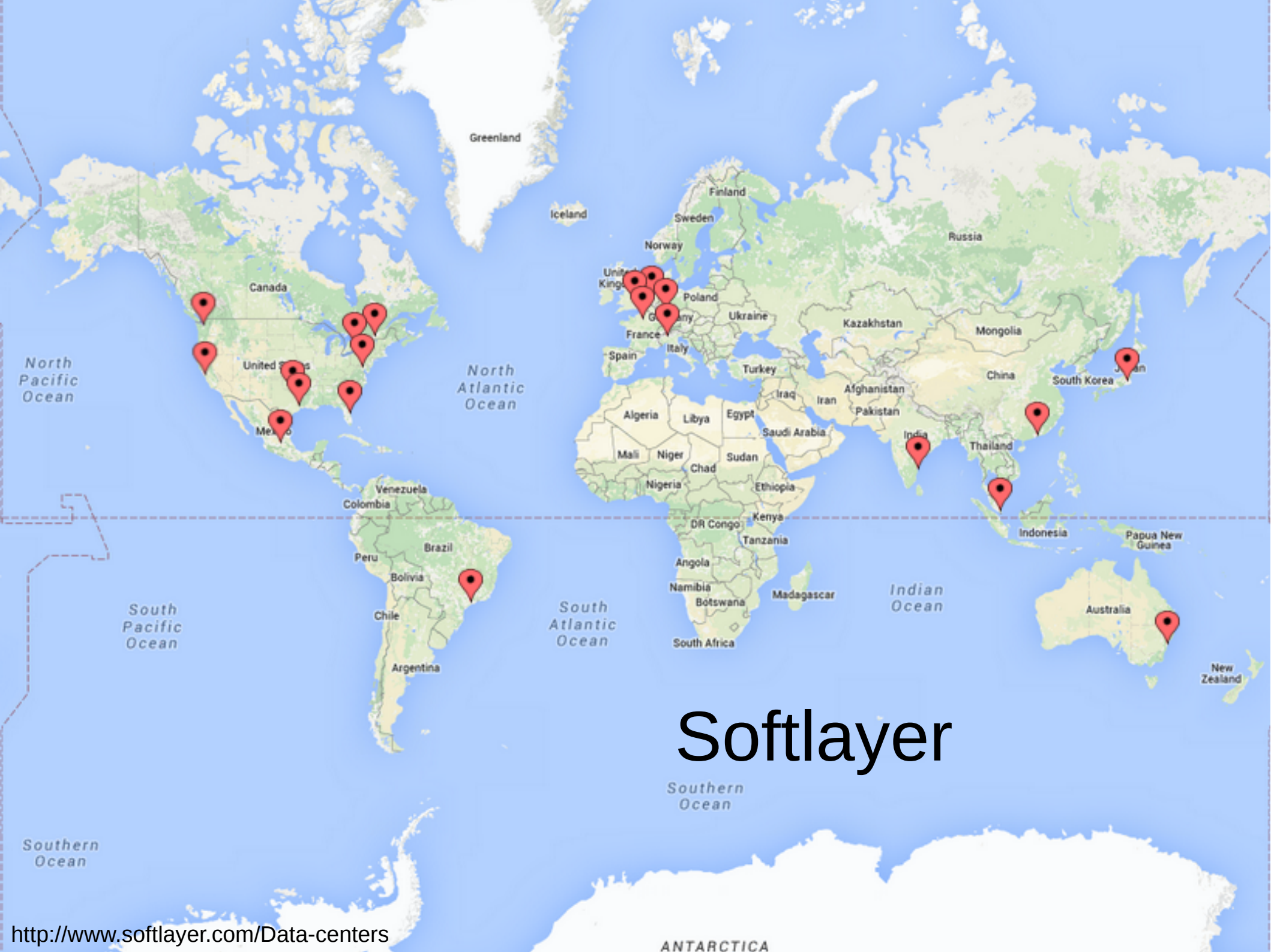
Google Cloud



Linode



Rackspace

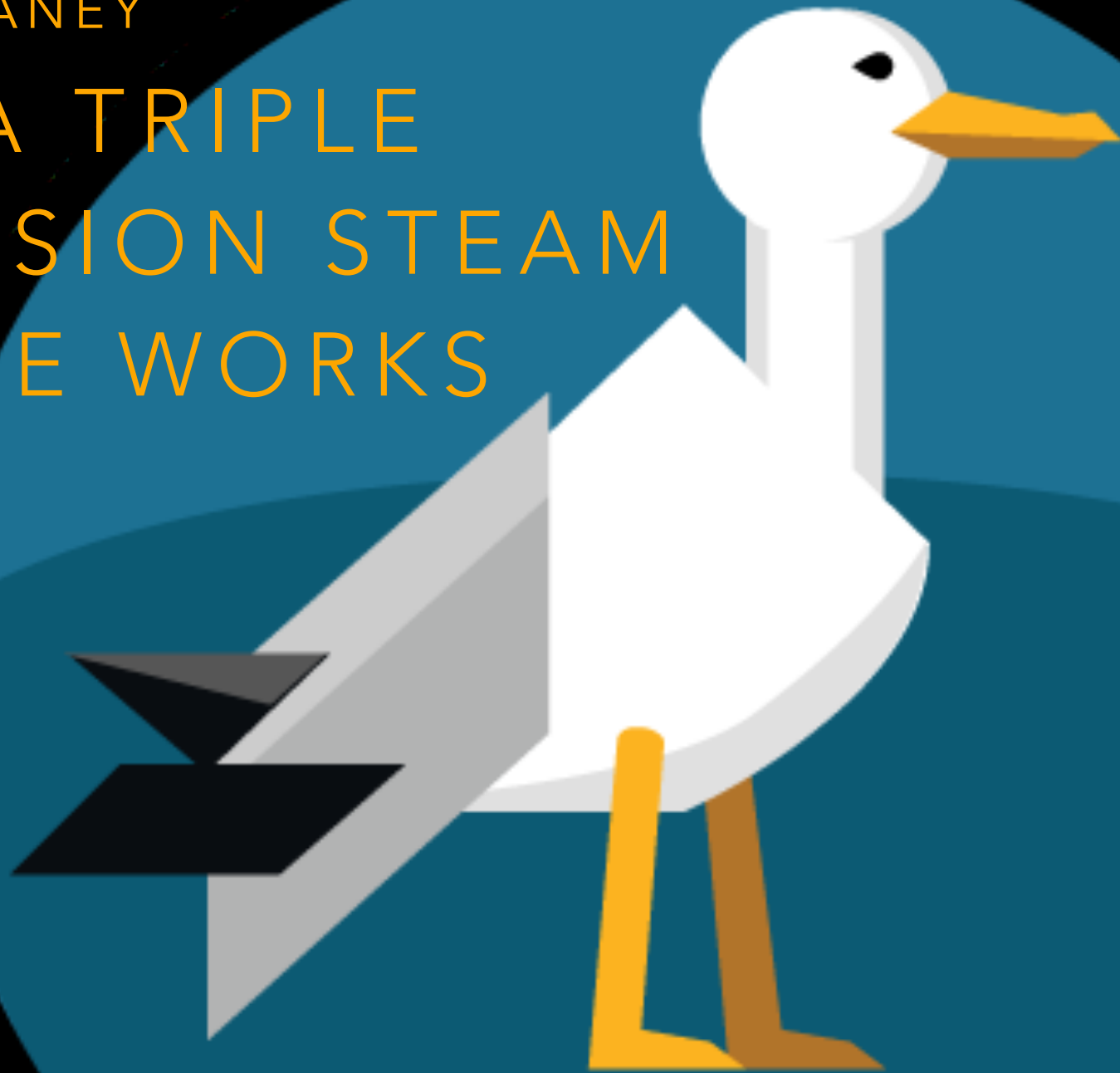


Softlayer


seagl2017@edunham.net
@QEDunham
talks.edunham.net/seagl2017

JOHN DULANEY

HOW A TRIPLE EXPANSION STEAM ENGINE WORKS



SeaGL



How a Triple Expansion Steam Engine Works

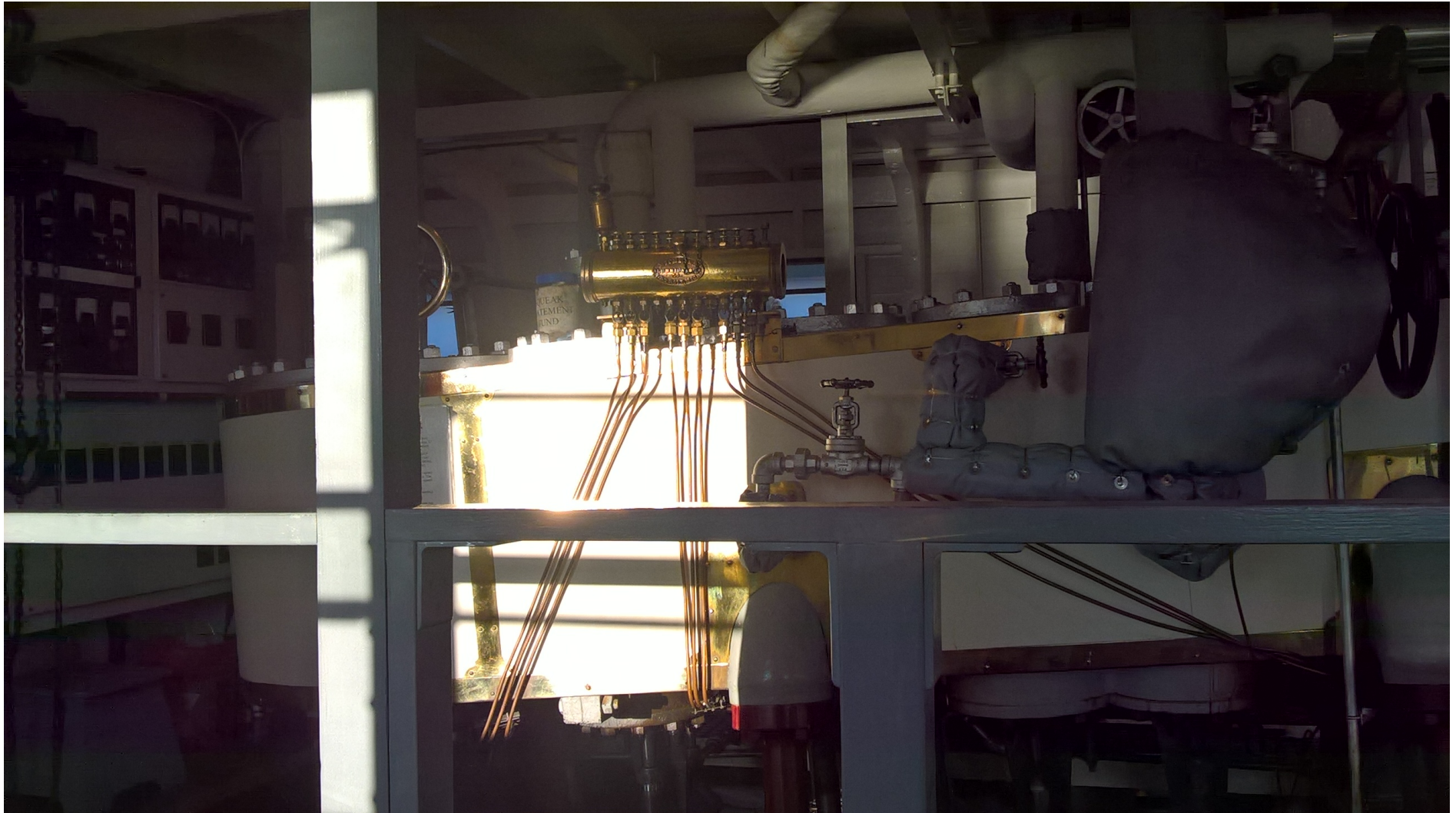
John Dulaney



About Me

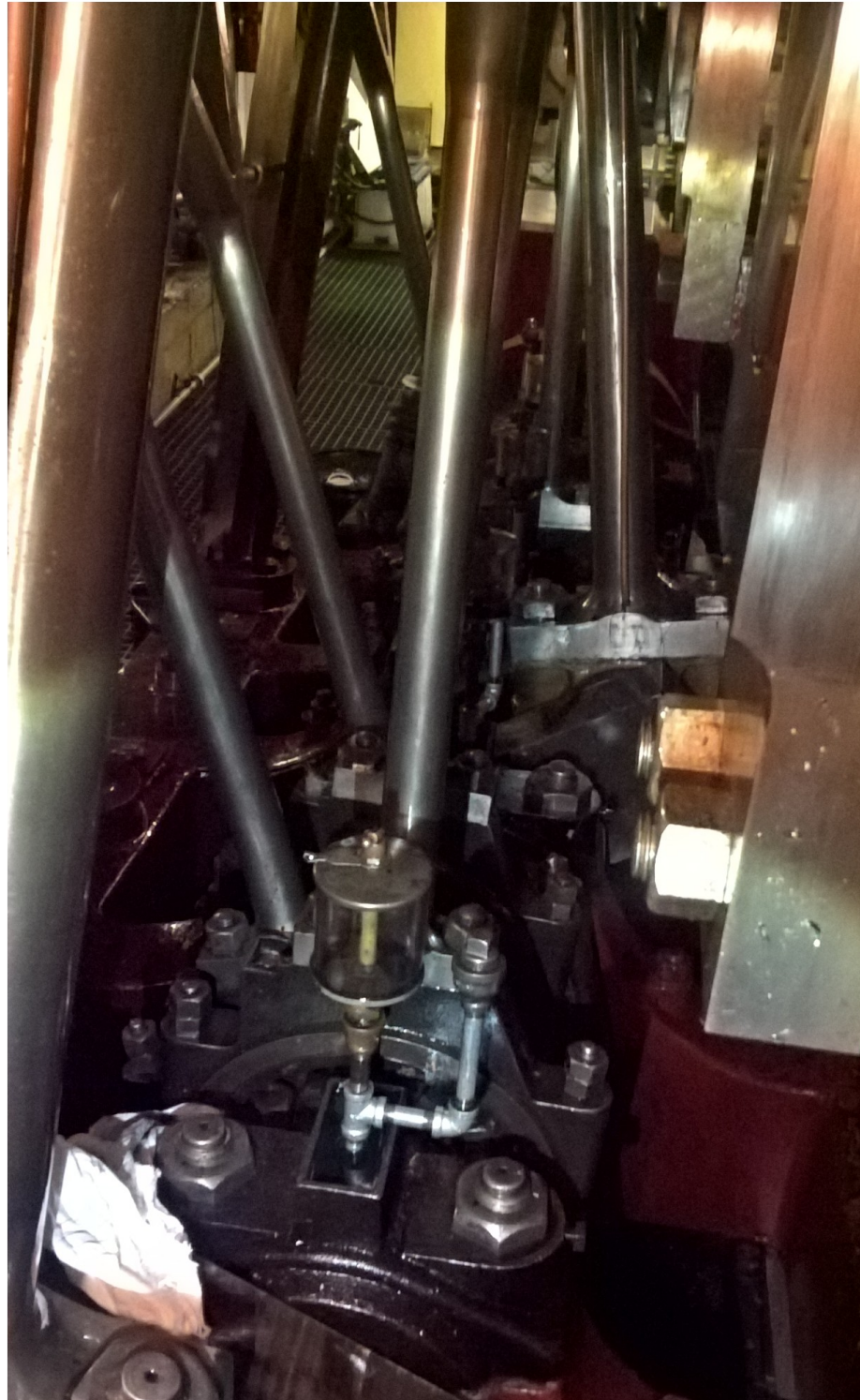
- Fire and Water Tender on the SS Virginia V



















BRENNA FLOOD
50 MINUTE
JENKINSFILE
DSL TALK
IN 5 MINUTES
OR LESS



SeaGL



JENKINSFILE

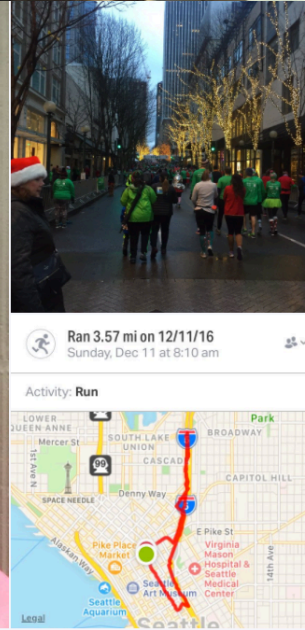
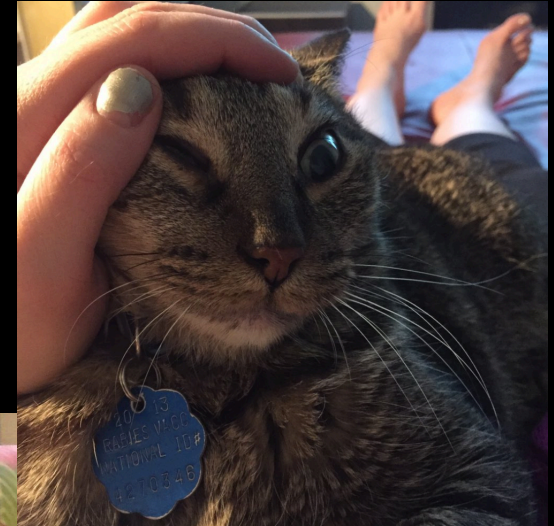
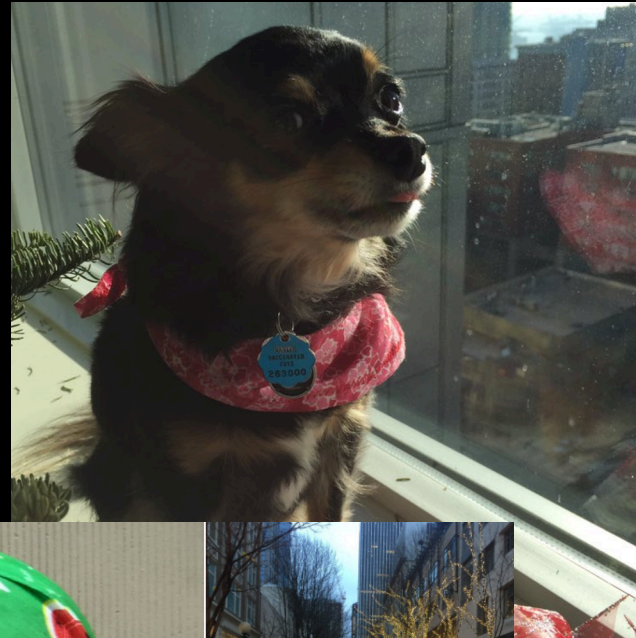
50 MINUTE TALK IN

5 MINUTES

(WHAT COULD GO WRONG?!?)

Brenna Flood
Sr. Build & Delivery Engineer

About me

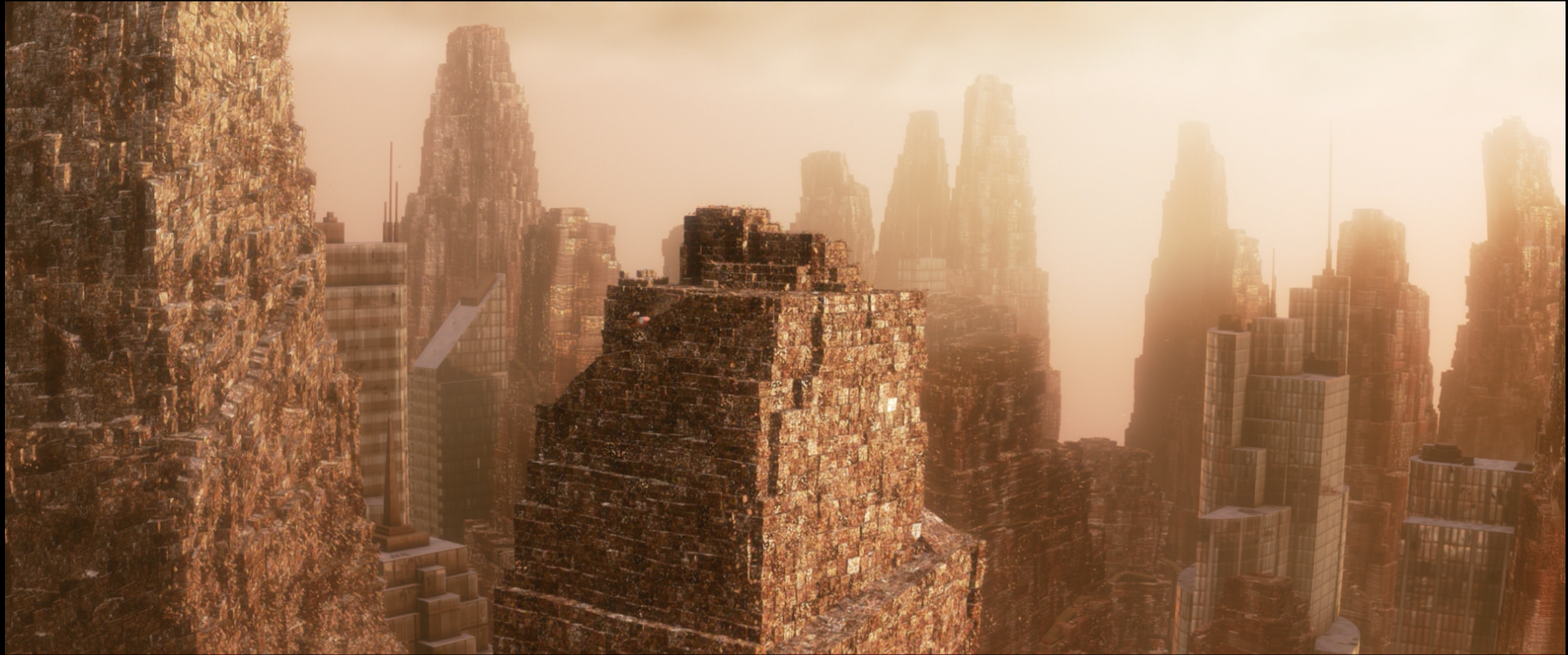


WARNINGS



This talk is intended
for mid-level Jenkins
users

Content flux









<i>Freestyle</i>	<i>Pipeline</i>
Pre-Build	Agent Environment Tools
Build	Stage
Post-Build	Post (postbuild) Notifications

Benefits

- Repository-driven
 - Runs will survive a Jenkins Leader restart
 - Groovy users rejoice!*
 - Groovy newcomers rejoice!
-

Anatomy of a Pipeline Block

```
pipeline {  
  /* insert Declarative Pipeline  
  here */ }
```



- Stages
- Agent
- Environment
- Options
- Tools
- Post
 - Notifications

Stages



```
pipeline {  
  agent {  
    node {  
      label 'bde_rhel_agent'  
    }  
  }  
  stages {  
    stage('Build') {  
      steps {  
        echo 'Building...'  
      }  
    }  
    stage('Test') {  
      steps {  
        echo 'Testing...'  
      }  
    }  
  }  
}
```


Agent



```
pipeline {  
  agent {  
    node {  
      label 'bde_rhel_agent'  
    }  
  }  
  stages {  
    stage('Build') {  
      steps {  
        echo 'Building...'  
      }  
    }  
    stage('Test') {  
      steps {  
        echo 'Testing...'  
      }  
    }  
  }  
}
```

Environment



```
pipeline {
  agent {
    node {
      label 'bde_rhel_agent'
    }
  }
  environment {
    key1 = 'value1'
    key2 = 'value2'
  }
  stages {
    stage('Build') {
      steps {
        echo 'Building...'
      }
    }
  }
}
```

Options



```
pipeline {
  options {
    timeout(time:1, unit: 'HOURS')
  }
  agent {
    node {
      label 'bde_rhel_agent'
    }
  }
  stages {
    stage('Build') {
      steps {
        echo 'Building...'
      }
    }
  }
}
```

Tools



```
pipeline {  
  tools {  
    maven 'apache-maven-3.0.1'  
  }  
  agent {  
    node {  
      label 'bde_rhel_agent'  
    }  
  }  
  stages {  
    stage('Version') {  
      steps {  
        sh 'mvn --version'  
      }  
    }  
  }  
}
```


Post



```
pipeline {
  agent {
    node {
      label 'bde_rhel_agent'
    }
  }
  stages {
    stage('Build') {
      steps {
        echo 'Building...'
      }
    }
  }
  post {
    always {
      echo 'I came here to generate builds
and chew bubblegum.'
    }
  }
}
```

Notifications - email

```
pipeline {
  agent {
    node {
      label 'bde_rhel_agent'
    }
  }
  stages {
    stage('Build') {
      steps {
        echo 'Building...'
      }
    }
  }
  post {
    failure {
      mail to: 'team@example.com',
      subject: "Failed Pipeline: ${currentBuild.fullDisplayName}",
      body: "Something is wrong with ${env.BUILD_URL}"
    }
  }
}
```



Notifications - Slack

```
pipeline {
  agent {
    node {
      label 'bde_rhel_agent'
    }
  }
  stages {
    stage('Build') {
      steps {
        echo 'Building...'
      }
    }
  }
  post {
    success {
      slackSend channel: '#best_team_ever',
        color: 'good',
        message: "The pipeline ${currentBuild.fullDisplayName} completed successfully."
    }
  }
}
```



Local Linting



```
curl -O $jenkins_base_url/jnlpJars/jenkins-cli.jar
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url login --username $username --  
password $password
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url declarative-linter<Jenkinsfile
```

Local Linting



```
curl -O $jenkins_base_url/jnlpJars/jenkins-cli.jar
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url login  
--username $username --password $password
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url declarative-linter<Jenkinsfile
```

Local Linting



```
curl -O $jenkins_base_url/jnlpJars/jenkins-cli.jar
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url login --username $username --  
password $password
```

```
java -jar jenkins-cli.jar -s $jenkins_base_url  
declarative-linter<Jenkinsfile
```

Tips!

- Use stages wisely
- Run jobs on Jenkins agents
- Keep stage declaration under node declaration
- Declare Cleanup Steps



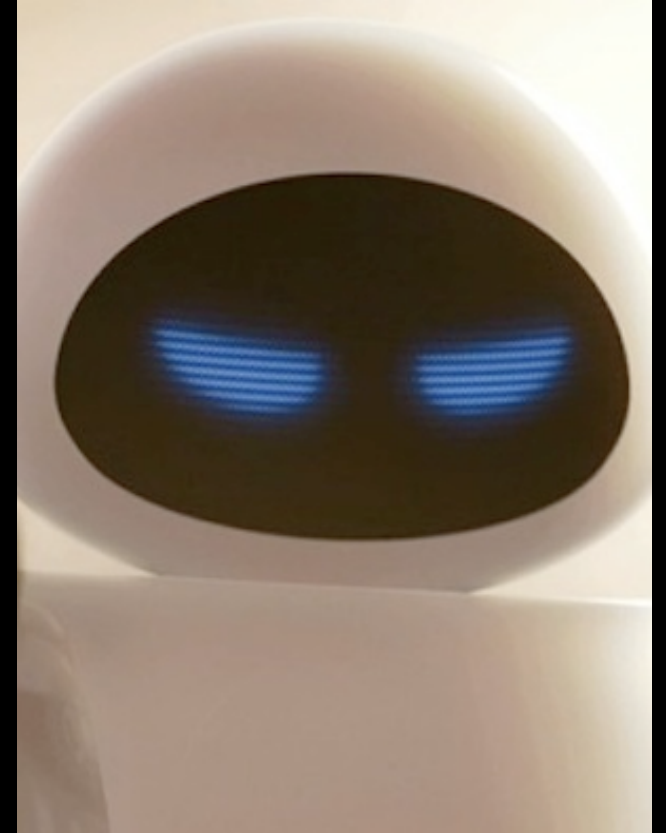
Gotchas!

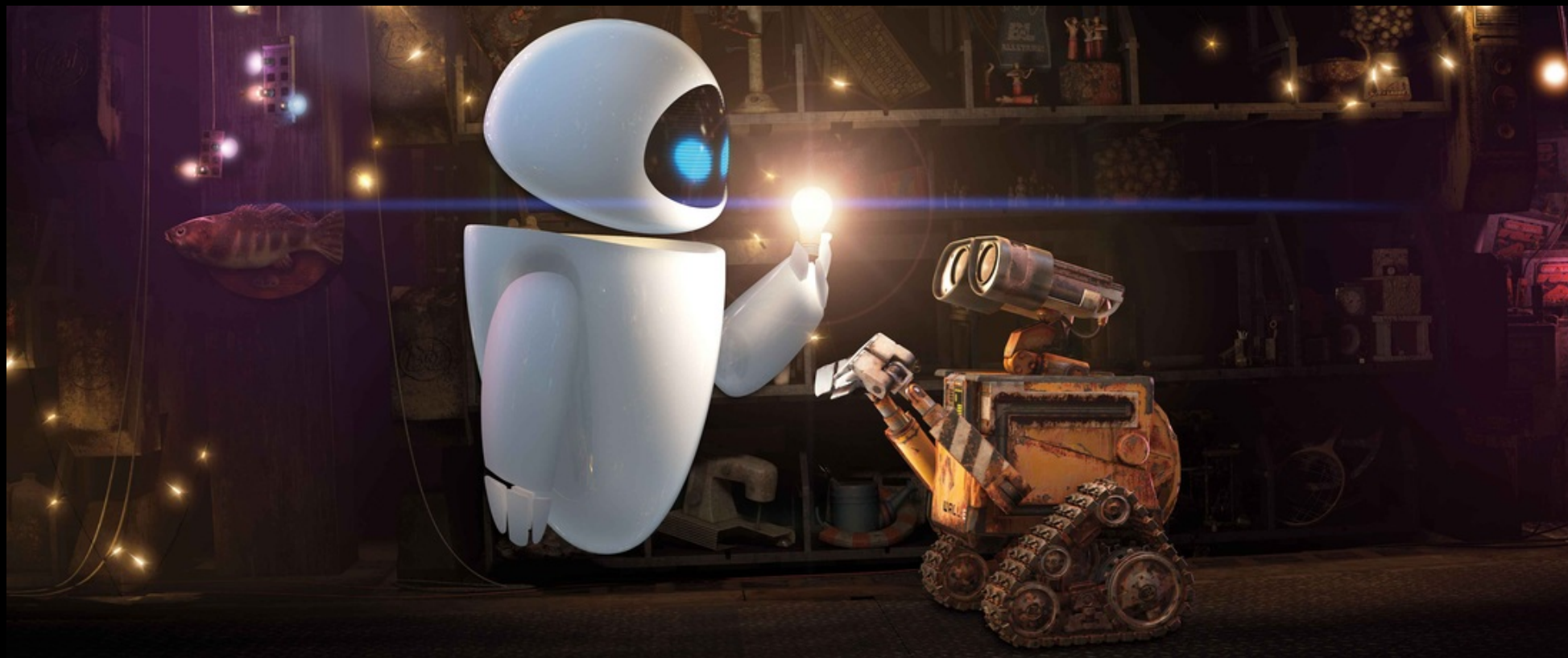
- Cannot run a parallel block across stage blocks
- Not all plugins have Jenkinsfile support
- Use JsonSlurperClassic instead of XmlSlurper or JsonSlurper
- Shell script exit codes



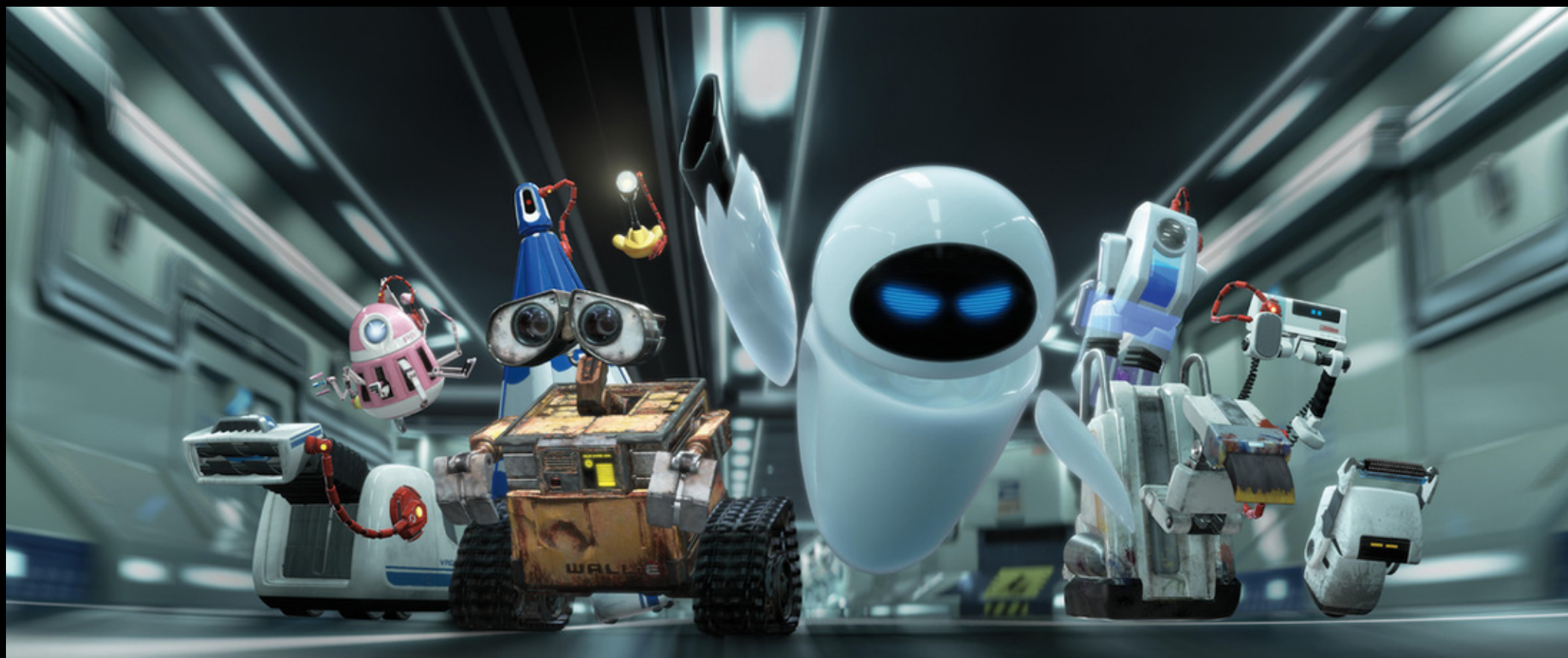
*\$%^&@*s!*

- Documentation
 - Changes Jenkinsfile DSL over time
 - Groovy Security Approval
 - Comprehensive Testing Constraints
 - Console Output
 - Agent Build Logs
-









REFERENCES

OFFICIAL JENKINS CI DSL REFERENCE

<https://jenkins.io/doc/book/pipeline/syntax/>

BEST PRACTICES / TIPS / TRICKS

<https://jenkins.io/blog/2017/02/01/pipeline-scalability-best-practice/>

https://github.com/jenkinsci/pipeline-examples/blob/master/docs/BEST_PRACTICES.md

<http://www.pierre-beitz.eu/2017/01/17/Writing-a-Jenkinsfile-Tips-and-Tricks.html>

TALKS / VIDEO

Jenkinsworld 2016 talk on the feature:

<https://www.youtube.com/watch?v=ALvg4KK25JU>

SOLID Principles – Kerri Miller (start @ 8:00)

https://www.youtube.com/watch?v=7U3e1MB_CQg

SAM KITAJIMA-KIMBREL

YOU BIKE

HOW FAR?!



SeaGL



YOU BIKE *HOW* FAR?

A BRIEF HISTORY OF HIV/AIDS

1900s: Earliest human SIV cases

1960s: HIV spreads out of Africa

1970s: Early confirmed cases

1980s: Epidemic begins in earnest

https://en.wikipedia.org/wiki/Timeline_of_HIV/AIDS

A BRIEF HISTORY OF HIV/AIDS

1985: Reagan finally talks about AIDS

1985: ELISA test approved!

1987: AZT approved!

1990s: ART improves rapidly;

Death rates fall (in developed countries)

https://en.wikipedia.org/wiki/Timeline_of_HIV/AIDS

A BRIEF HISTORY OF HIV/AIDS

2005: PEP standardized

2014–present: PrEP approved

https://en.wikipedia.org/wiki/Timeline_of_HIV/AIDS



**PEOPLE ARE
LIVING WITH HIV**

LIVING WITH HIV

Life expectancy “near normal”
due to treatment advances

(<http://www.bbc.com/news/health-39872530>)



**WE ARE REDUCING
INFECTION RATES**

PREP EFFICACY

92-99% transmission risk reduction for those who follow daily regimen

<https://men.prepfacts.org/the-basics/>



NEEDS TODAY ARE DIFFERENT

HIV/AIDS RESPONSE IN 2017

Testing

Education

Case management

Risk reduction

Advocacy

**SAN FRANCISCO
AIDS
FOUNDATION**



**LOS
ANGELES
LGBT
CENTER**

AIDS/LifeCycle®



SF TO LA • **END AIDS** • 545 MILES



SF TO LA – 545 MILES



2500 RIDERS



\$16,000,000/YEAR

IMPACT AND MEASUREMENTS

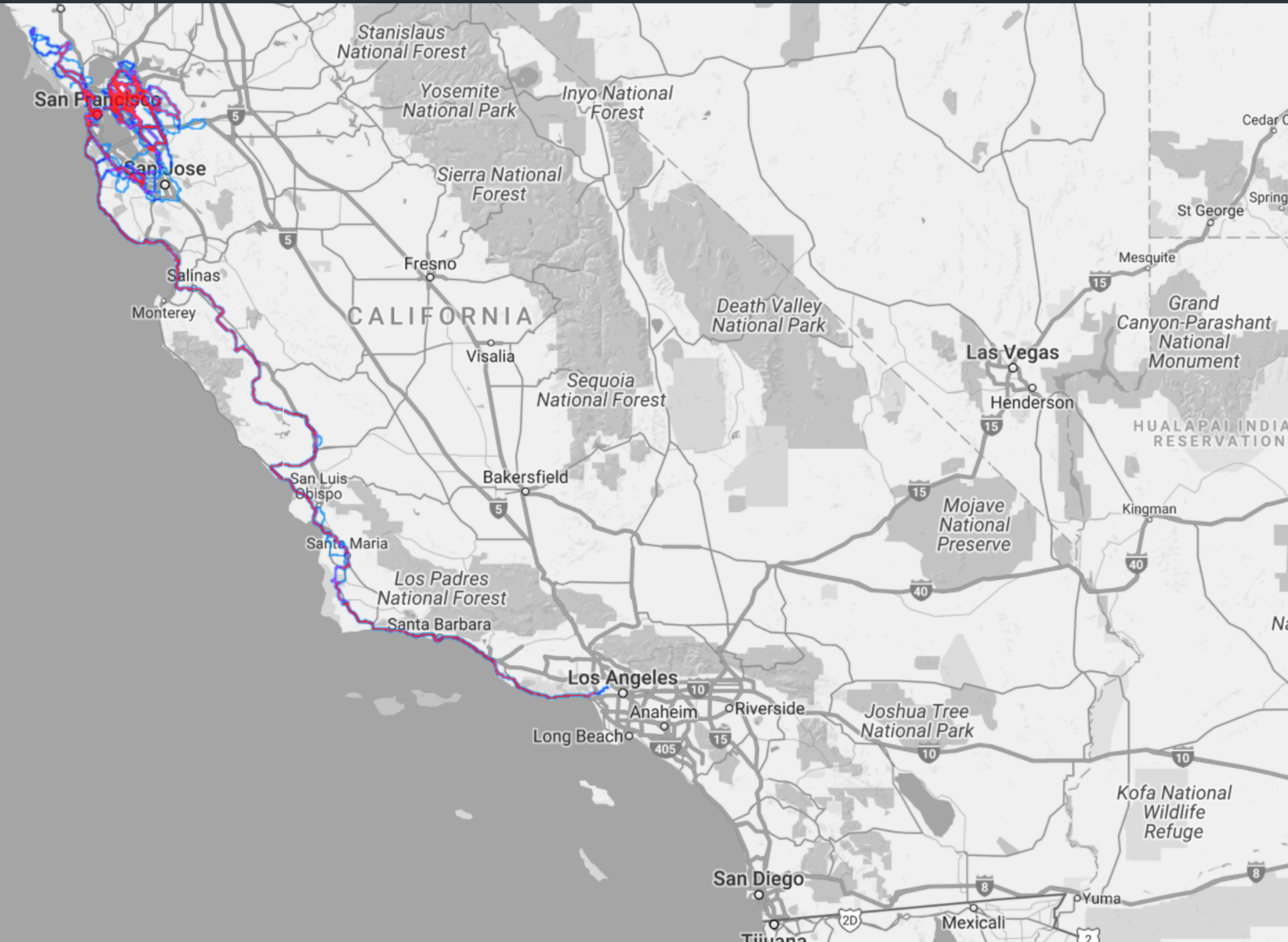
\$50k: substance use counselor for 40 clients

\$15k: HIV/STI tests, treatment, education for 100 clients

\$2500: Safe and stable housing for 4 HIV+ people for a month

\$150: 1000 syringes for exchange programs

\$10: 143 condoms













**ACTIVISM:
GO BEYOND PROTESTS**



**FIND "THE RIDE"
FOR YOU**



RACHEL KELLY

BACKUPS





Why Even A Backups



Rachel Kelly - SeaGL
7 October 2017



About Rachel

Oops, Devops

Python

Running

McElroys

Why back up?

Analysis

Compliance

Safety

Service Agreement

Analysis



“how do people even use this anyway”

Compliance



HIPAA, PCI-DSS, &c

Safety



“spinning up a new server is a pain”
gotta insulate against multiple vectors

Service Agreement



“guaranteed 99.999999999999999999 puptime”

~ * ~ *storyyy tiiiiime* ~ * ~

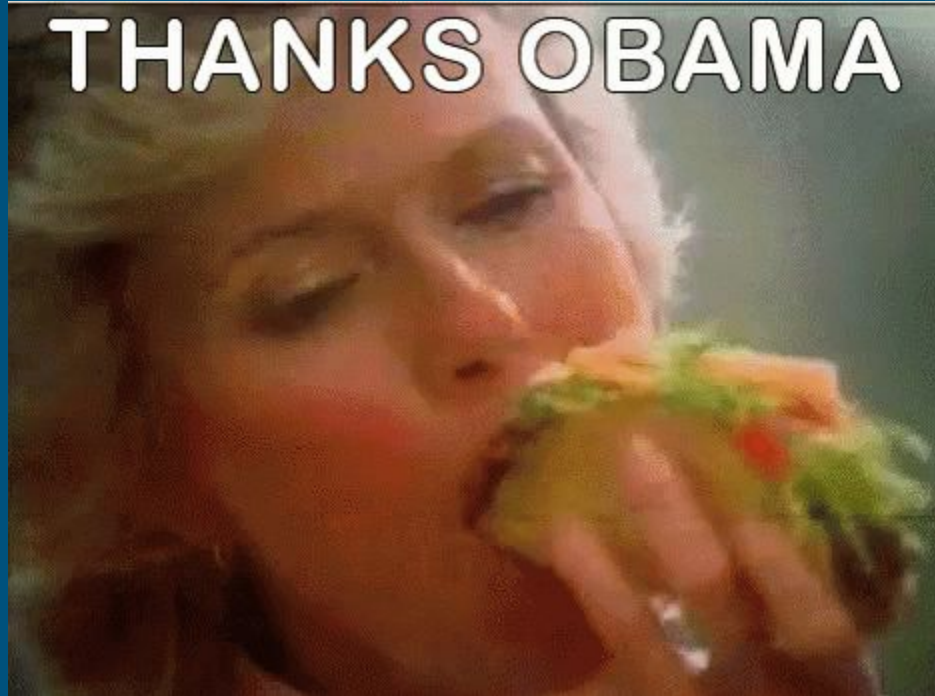


Duply, a giant
shell script

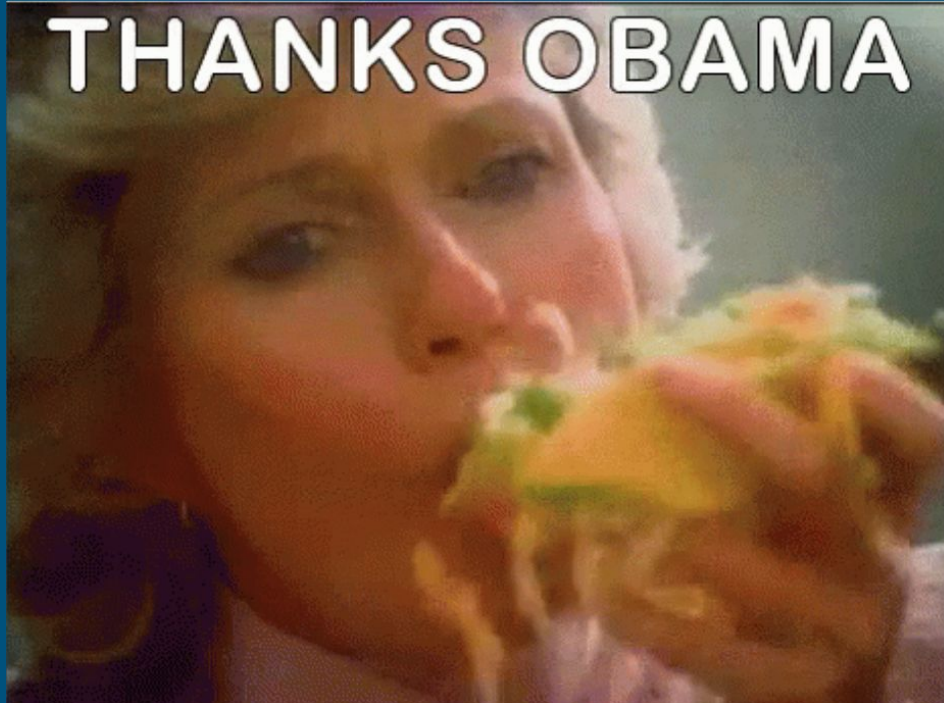
Full or
Partial Backups?

Full system?

Oh no tho



Oh no tho



Access to full system?

FULL backups??

Incremental.. FOREVER

But did they work.

story - erroneous
automated emails

So what do???



Rachel Kelly - @wholemilk - Backups

“Follow all the rules and ...”



Or just do the d&#n thing



cron to all

backups (tar and s3
sync) every night

look for >8wk, delete
tool to get full/file

Descriptive, not prescriptive

real life solutions are rarely perfect

probably don't do what we did



Thank you!

JOHN "GENEHACK" ANDERSON

#SPEAKERLIFE



SeaGL

#speakerlife

john sj anderson | @genehack | seagl 2017 | PAR-TAY

hi!
i'm
john



i do
this
a lot

partial list of conferences i've spoken at:

ohio linuxfest, pittsburgh perl workshop, yapc/tpc,
oscon, dc-baltimore perl workshop, openwest,
scale, seagl, linux fest northwest, perl oasis,

beer city code



BEER
CITY
CODE

**John
Anderson**

Speaker

BizStream

THE CZ GROUP

KFORCE

Brilliance Technology

ost

GERTY

bluemadara

Microsoft



TEK

OtherBase

Collective Idea

GRAND
CIRCUS

SALESPAD

WORKSHOP ONLY

i'm a
pro
now!



i'm a
pro
now!

i'm not **braggin'**
i'm just **sayin'**

i do
this
a lot

it would be

great

**if more people
did it too**

it's good
for you

it's good
for us

**but how do
you get
started?**

1. figure out your **story**.

you have a story.
find it.

1. figure out your story.

2. write your proposal.

https://github.com/vmbrasseur/Public_Speaking

1. figure out your story.
2. write your proposal.

3. submit it.

submit it
alot.

1. figure out your story.
2. write your proposal.
3. submit it.

4. **GOTO** 1.

**you will get
rejected.**

you will get rejected

a lot.

dirty secret #1:
everybody
gets rejected.

**in 2017, i am speaking at
nine confs.**

i've been
rejected
by *ten*.

0.444

dirty secret #2
successful established
speakers always submit
multiple proposals.

my
overall
stats...

11 acceptances.
50 rejections.

0.220

**don't be
discouraged.**

recycle
your proposals.

**ask for
feedback.**

#public_speaking
(freenode)

keep.
trying.

**established
speakers:**

**announce
your
rejections.**

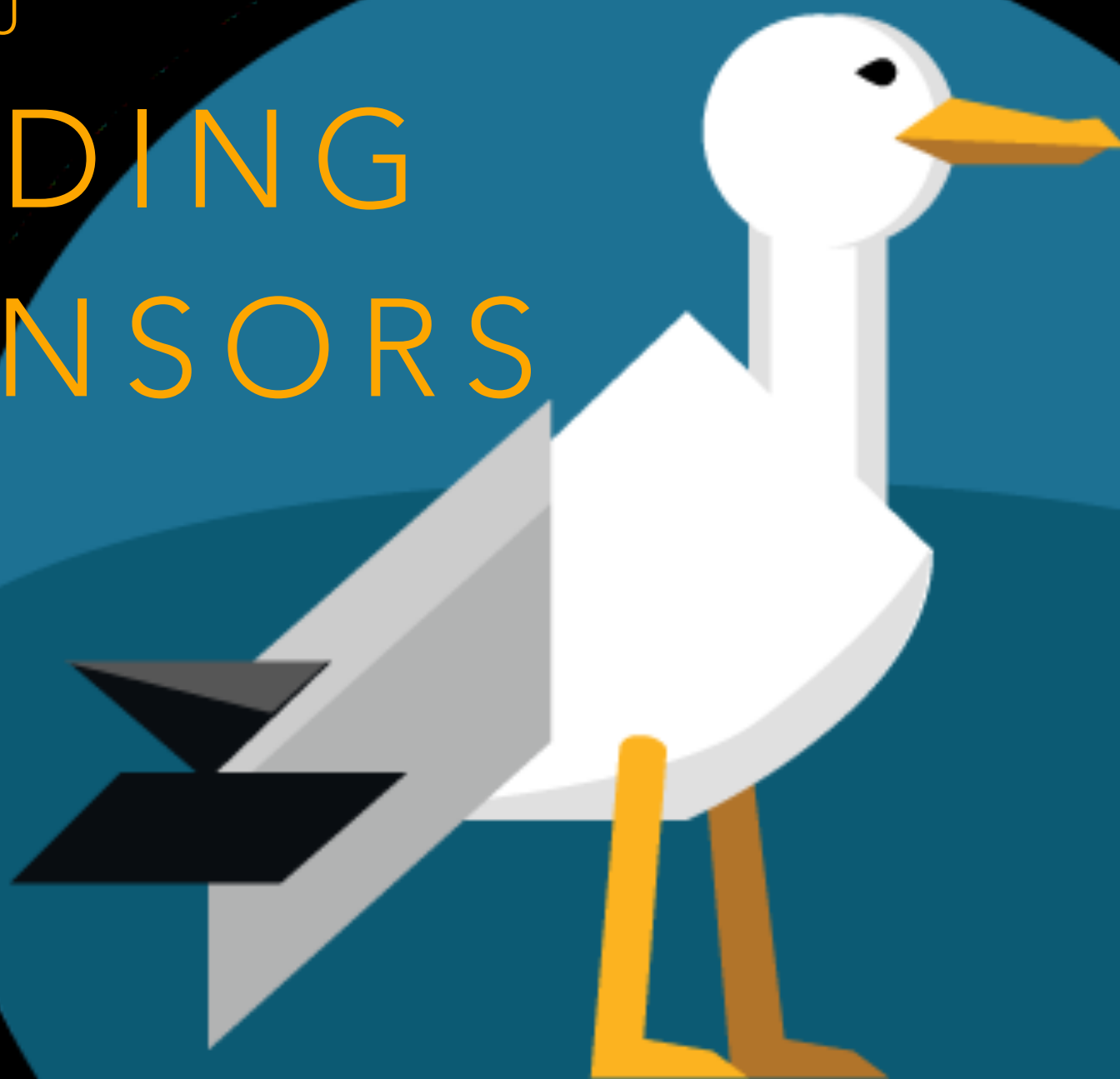
**keep announcing
acceptances too!**

#speakerlife

thanks!!

THANK YOU

FUNDING
SPONSORS



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C ▶ S A T S

COMCAST 
TECHNOLOGY SOLUTIONS



REDFIN

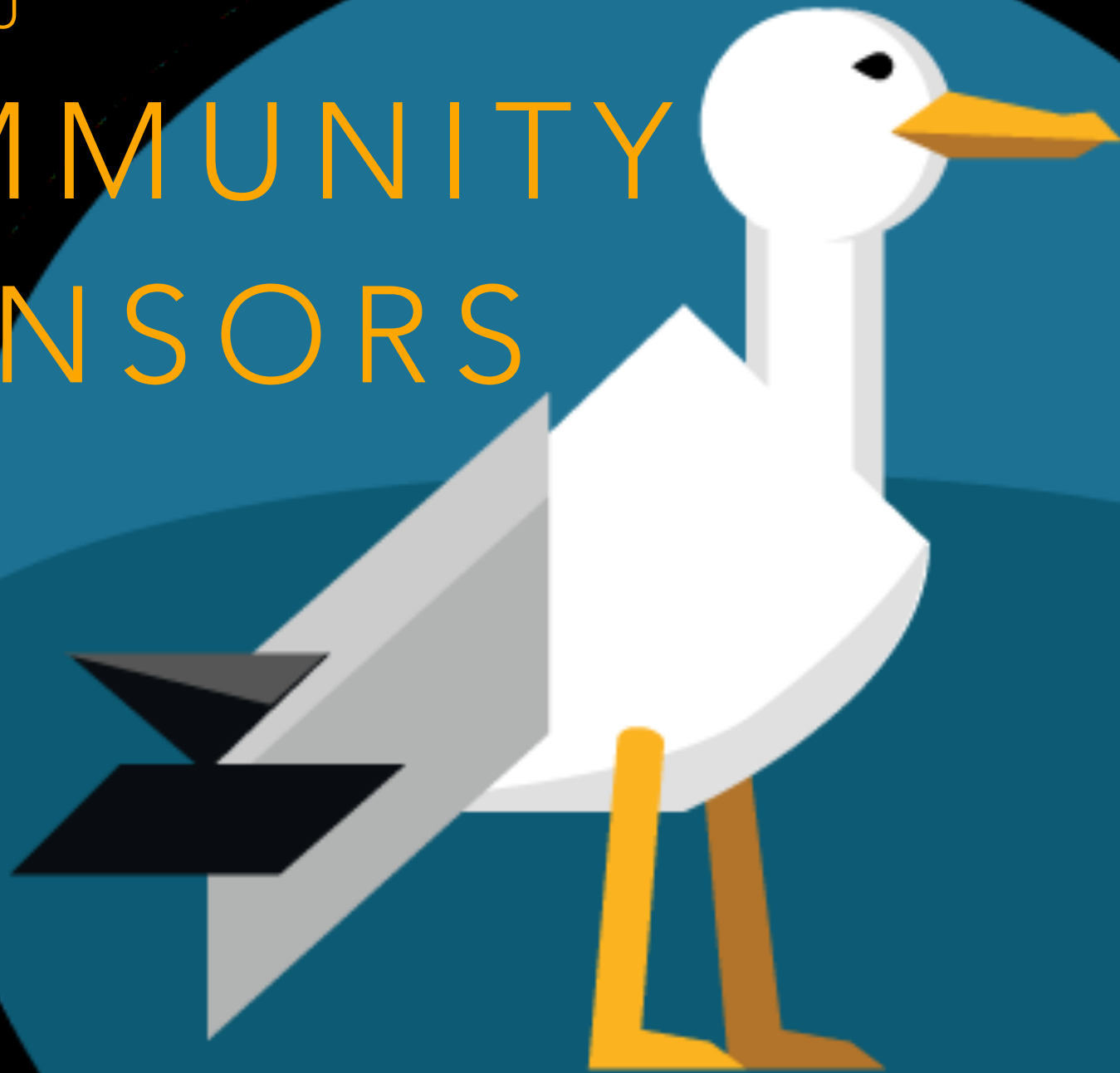


SEATTLE CENTRAL COLLEGE

One of the Seattle Colleges

THANK YOU

COMMUNITY
SPONSORS



SeaGL



kubuntu[®]

LinuxFest
Northwest





FREE SOFTWARE
F O U N D A T I O N

www.fsf.org

THANK YOU

VOLUNTEERS



SeaGL

- **Organizing Committee**

- Deb Nicholson, VM Brasseur, Wm Salt Hale, Adam Monsen, Lisa Sandoval, Rob Smith, Walter Whittel

- **Program Committee**

- John SJ Anderson, VM Brasseur, Emily Dunham, Wm Salt Hale, Tiberius Hefflin, Emma Humphries, Deb Nicholson, Wale Ogundipe, Jeremy Tanner

- **Onsite Volunteers**

- Adrienne Cohea, Brenna Flood, Scott Foster, Garrett Honeycutt, Sam Kitajima-Kimbrel, Tony Knapp, Spencer Krum, Robert M, Dave Nash, Soyoung Park, Justin Rush, Andrew Schwartzmeyer, Ashina Sipiora, Maryna Yesakova

- **Cascadia Builder Award Committee**

- Deb Bryant, Michael Dexter, Emily Dunham, Mark Frischmuth, Benjamin Mako Hill, Deb Nicholson

- **Other friends who have helped us get here**

- Mark Atwood, Nick Durkee, Gareth Greenaway, Aurilee Gamboa, Bizhan Hoomin, Jesse Keating, Tessa Mero, Chris Petersen, Corey Quinn, Jose Antonio Rey

- Thanks to all of our **speakers** and our **keynotes! Lightning talks** too!

- Thanks to our pals at the **FSF!**

- Molly DeBlanc, Jasimin Huang, Don Robertson, Jeanne Rasata, John Sullivan