SREcon Americas 2019

Lightning Talks

Lightning Talks Schedule

- Livetweeting Tech Conferences - **Bridget Kromhout, Microsoft**
- 5 Insights from 200 SREs on How Incident Response Affects Them - **Jaime Woo & Dawn Parzych, Catchpoint**
- Distributed Systems Need Deadlines - **Paul Henry, Coinbase**
- Doughnut Dilemma - **Ravi Lachhman, AppDynamics**
- Automating SRE Work - **Aniket Kulkarni, PayPal**
- Durable Disorder - **Anthony Sandoval, GitLab Inc**
- The Operation Maturity Model - **Matthew Fornaciari, Gremlin, Inc.**
- "Monitoring and Alerting, Ain't Nobody Got Time for That" - **David Holmes, USDS**

SREcon Americas 2019

Lightning Talks

livetweeting tech conferences



record scratch *freeze frame*
yup. that's me. so you're probably wondering how I got myself into this situation

why tweet?

visibility!

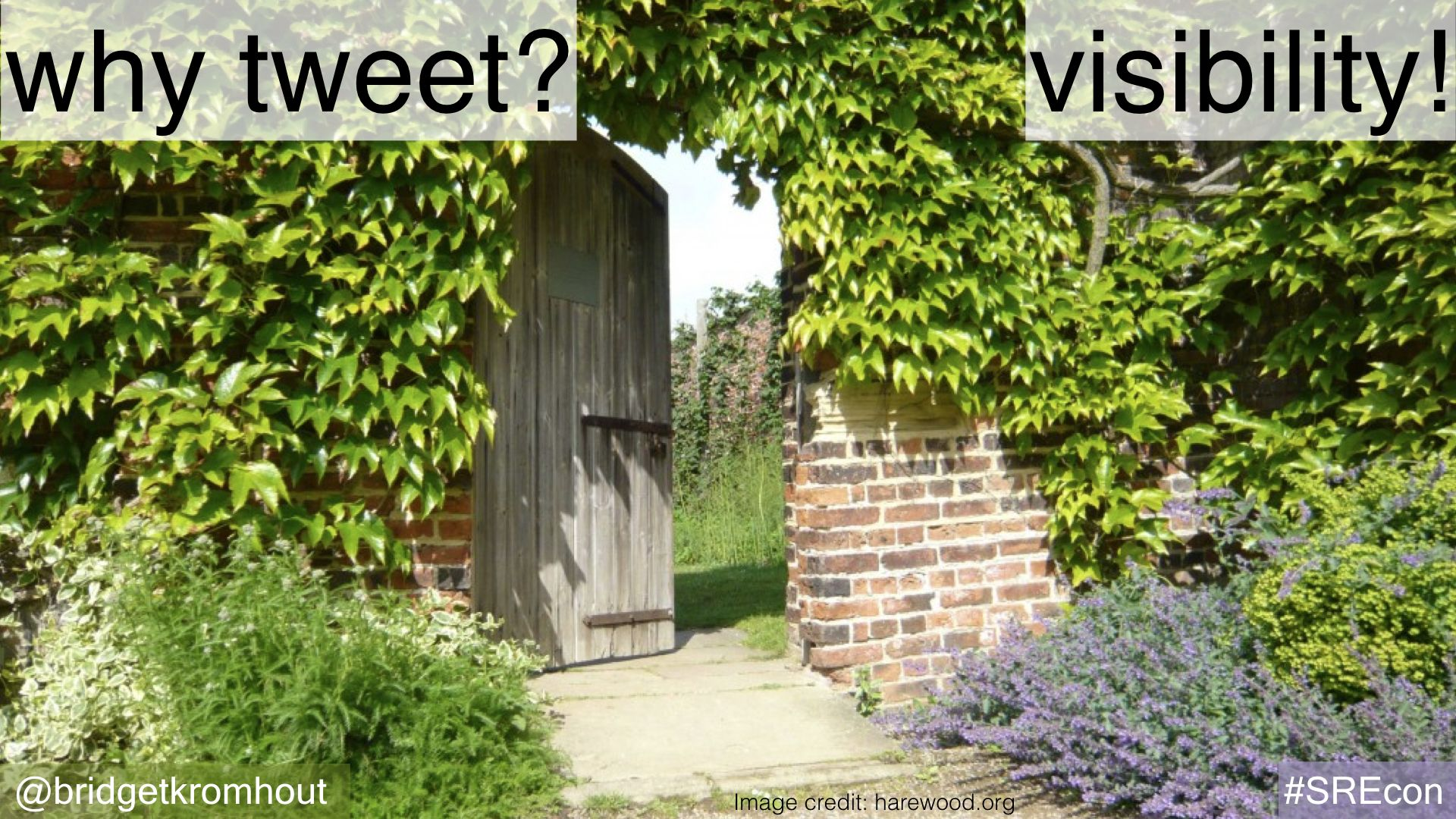


Image credit: harewood.org


Who ARe
you?

pre-livetweeting checklist

- ☑ find conference hashtag
- ☑ decide which talks (if multi-track)
- ☑ find speaker twitter handles
- ☑ draft tweets in tweetbot

who's the hashtag for?



at the conference

attendees

speakers

organizers



not at the conference

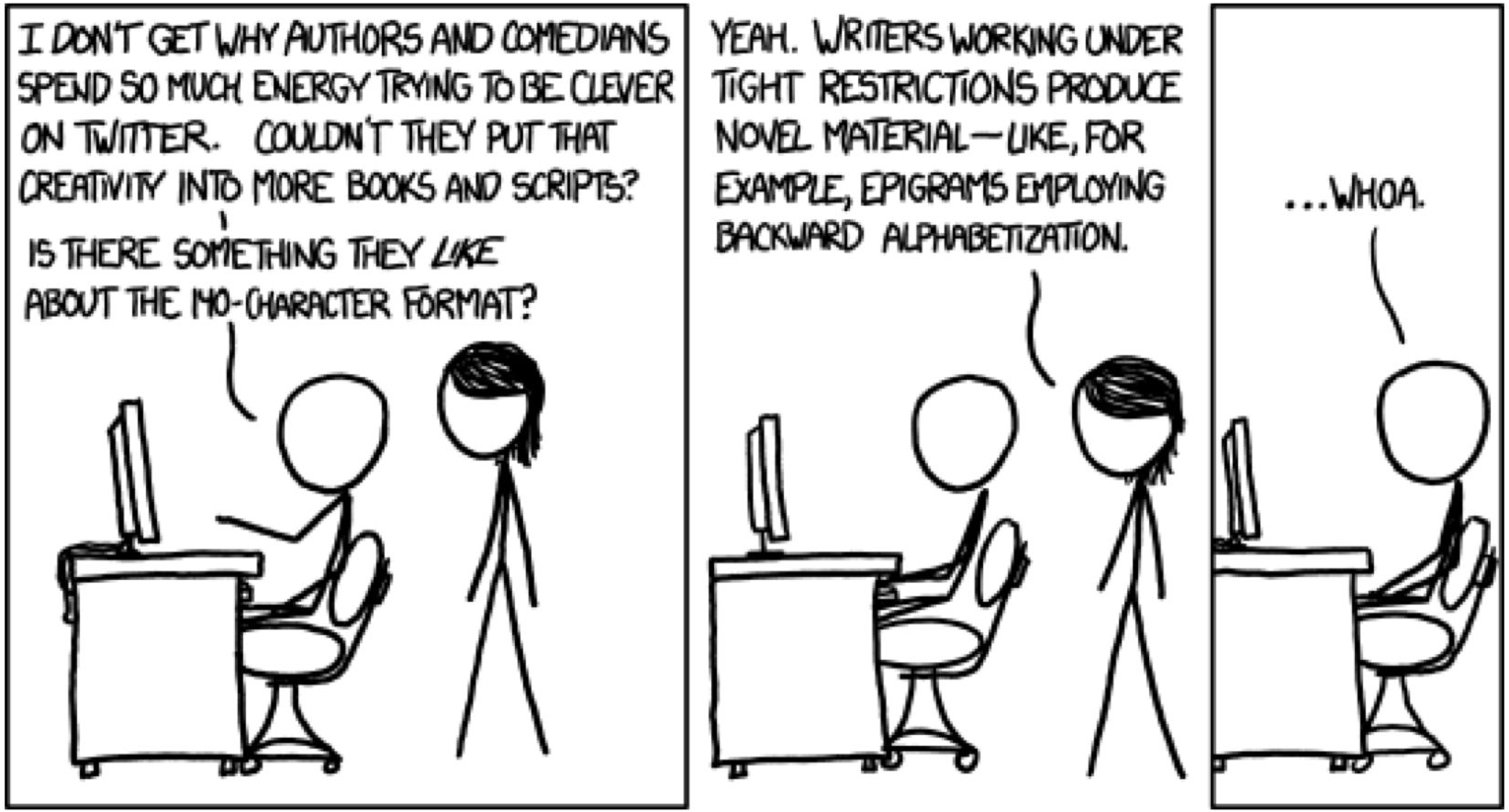
people with FOMO

your followers who aren't interested in the event

#keep #hashtags #simple



Constraints



a picture is worth 1K words

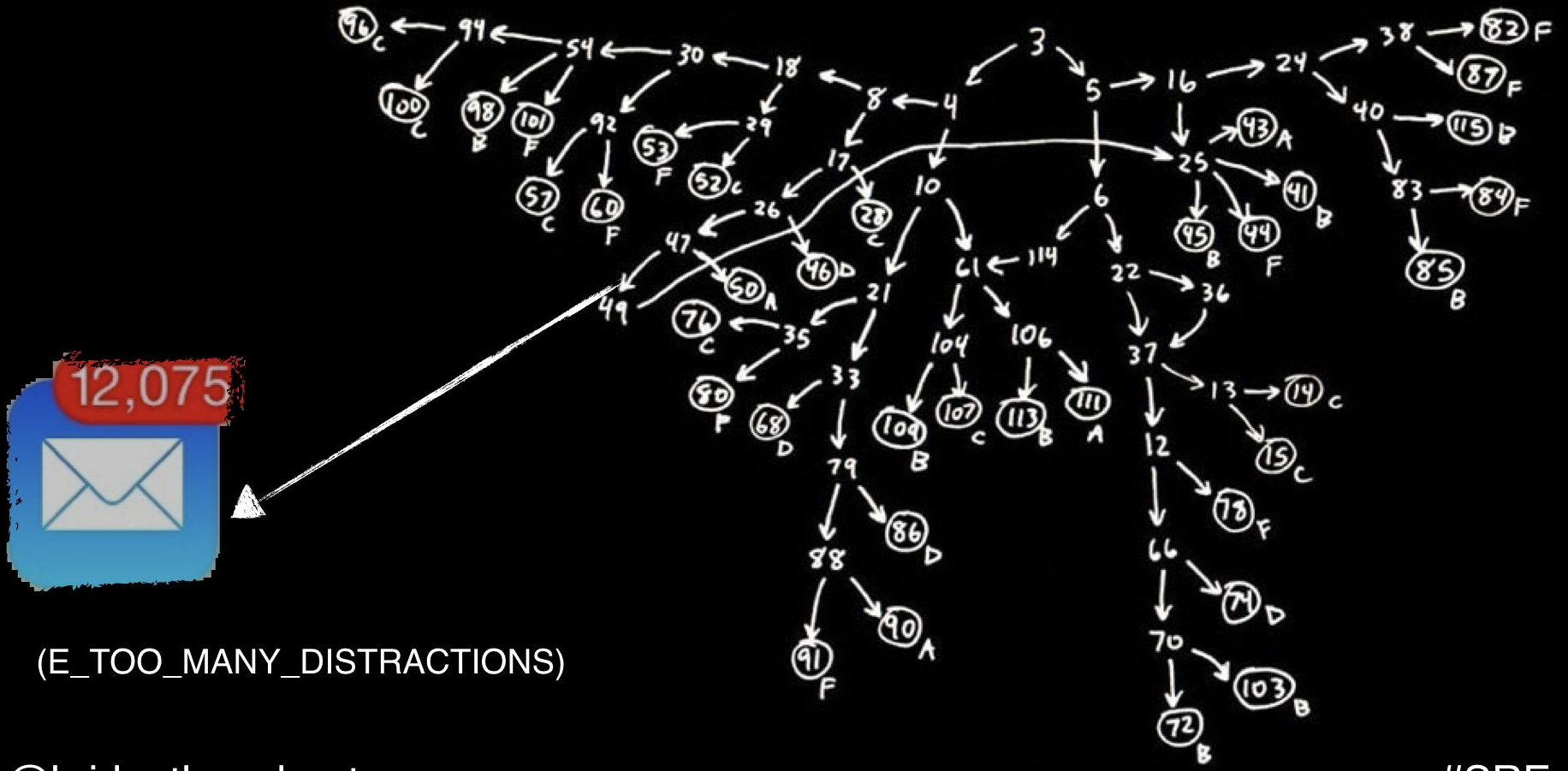
- choosing an angle
- speaker plus slides
- up to four pics per tweet
- what is your goal?

@bridgetkromhout



#SREcon

when I don't tweet



(E_TOO_MANY_DISTRACTIONS)


kindness > negativity
(backchannels > subtweets)
@bridgetkromhout
#SREcon

a pragmatic guide to arguing on the internets

or, muting *well actually*



incidents & accidents



audience reaction considerations



caution: too dark, empty chairs, demographics

Image credit: conference basics

multi-track livetweeting:

being in two places at once!?!



Image credit: Harry Potter

other livetweeting styles: threading!



Liz Fong-Jones @lizthegrey · Jan 18

So, onto Kubernetes. show of hands. how many people have used it in production vs. played around with it? 1/3 have played with it, only a handful use it in prod. #devopsdays

1 2



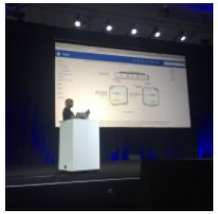
Liz Fong-Jones @lizthegrey · Jan 18

"Computers are easy, people are hard" is catchy but false; "scalable fault-tolerant distsys requires eng effort to build and operate; and people are even harder than that"... is more accurate. #devopsdays

1 11 21

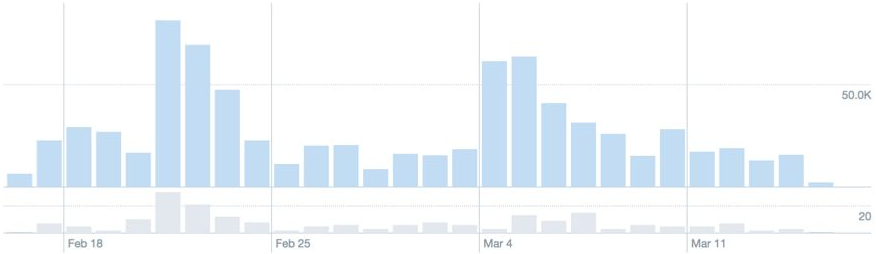
analytics.twitter.com

Tweet activity



Bridget Kromhout @bridgetkromhout
"Istio is a very early project. Don't run out of here and deploy it in production; you'll be on the news." (and not in a good way) 😂
@kelseyhightower #indexconf
pic.twitter.com/VMXb43elxz

Your Tweets earned **777.3K impressions** over this **28 day** period



Impressions	31,347
Total engagements	1,385
Media engagements	621
Detail expands	251
Likes	166
Link clicks	157
Profile clicks	102
Retweets	58
Hashtag clicks	27
Follows	2
Replies	1


trip reports
highlight activities of your team (like the booth)
tweets from talks of customers, partners, coworkers
@bridgetkromhout
#SREcon

pages for your own talks

- before: title, description, date, event, location
- shortly after: slides, embedded tweets
- eventually: video

bridgetkromhout.com/speaking

conference twitter isn’t the only twitter



@bridgetkromhout

#SREcon


tl;dr: increase the happiness in the world
bridgetkromhout.com/blog/livetweeting-tech-conferences
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Lightning Talks

5 Insights From SREs On How Incident Response Affects Them

Dawn Parzych - @dparzych
Jaime Woo - @jaimewoo

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Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time



Audience Participation Time

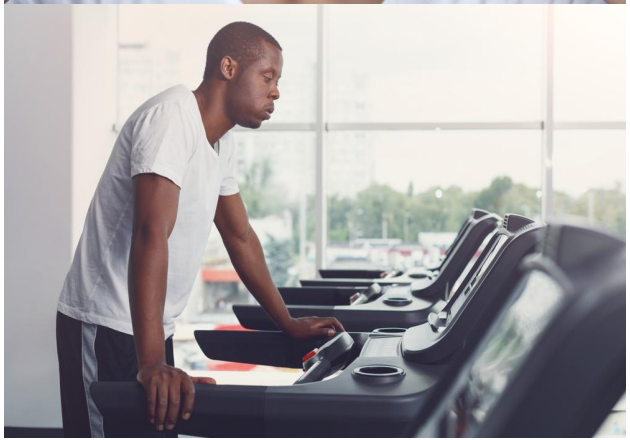


Audience Participation Time



Physical & Behavioral Symptoms of Stress





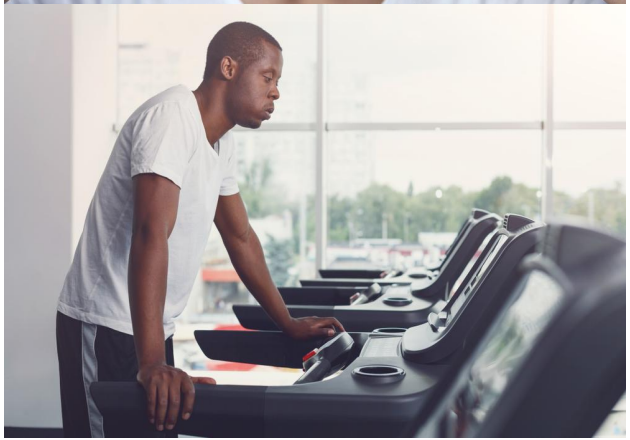




@dparzych @jaimewoo

Physical & Behavioral Symptoms of Stress





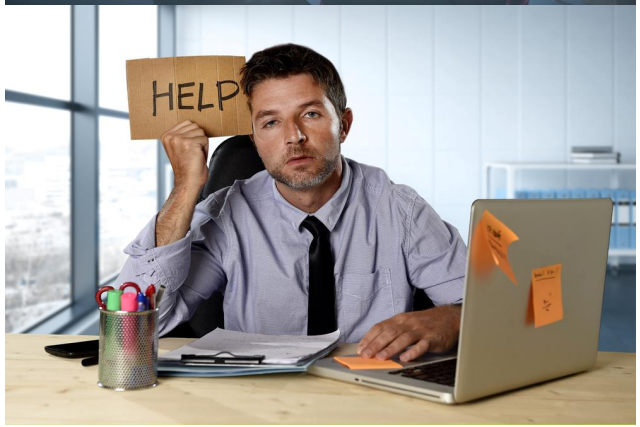




@dparzych @jaimewoo

Emotional Symptoms of Stress



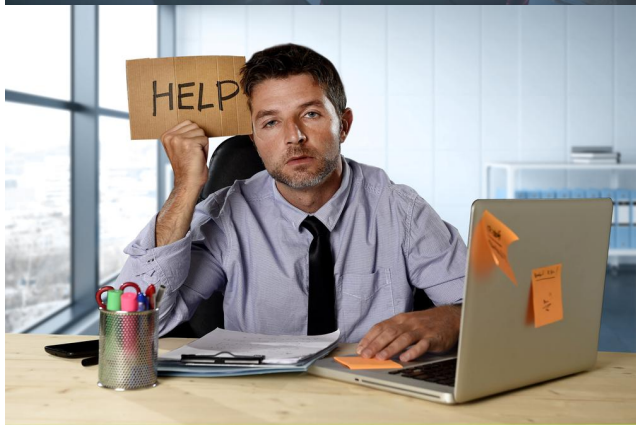






Emotional Symptoms of Stress









Things you can do



Download and read the full report

http://bit.ly/2019SRE-Report



Additional Resources

https://jaimewoo.github.io/SRE-stress-resources/

Things you can do



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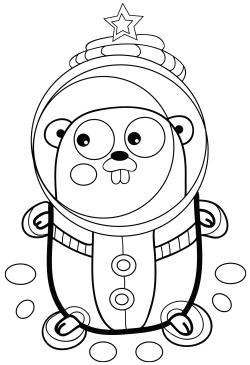
Distributed Systems Need Deadlines

A tale of three gophers

Paul Henry, ~~Site~~ Reliability Engineer @ Coinbase
SRECon 2019

Our casts

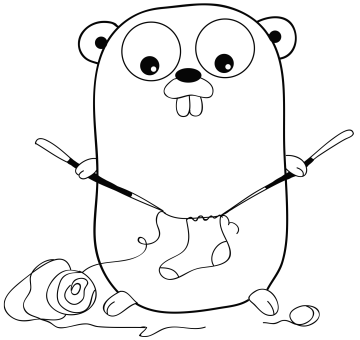
Ann



Bob



Pete



Their tasks

Ann

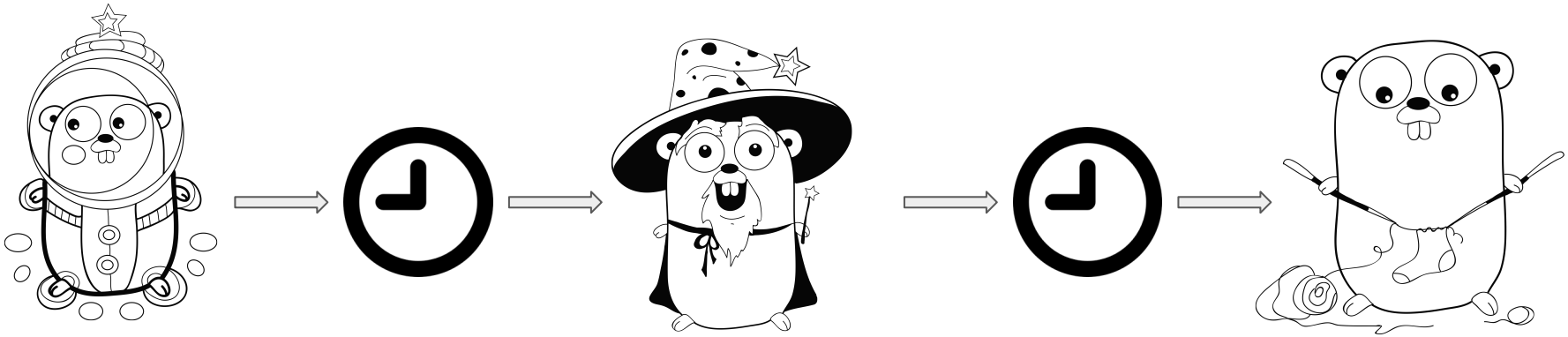
Cold-footed astronaut

Bob

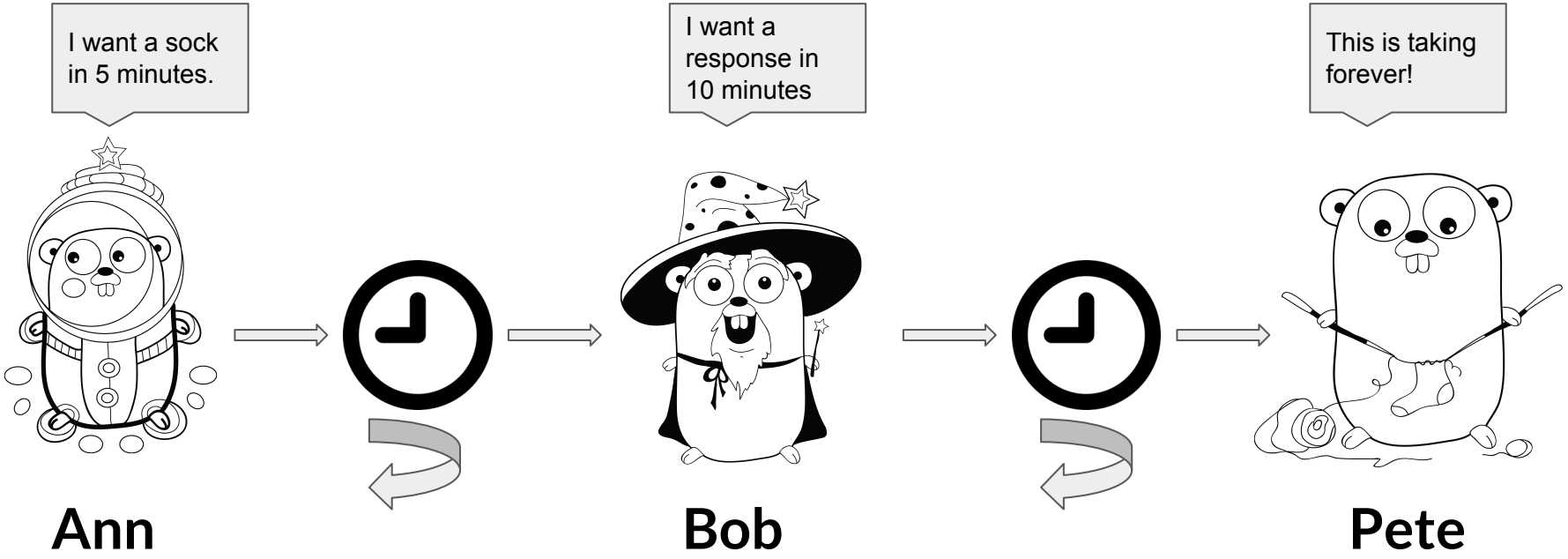
Sock Router

Pete

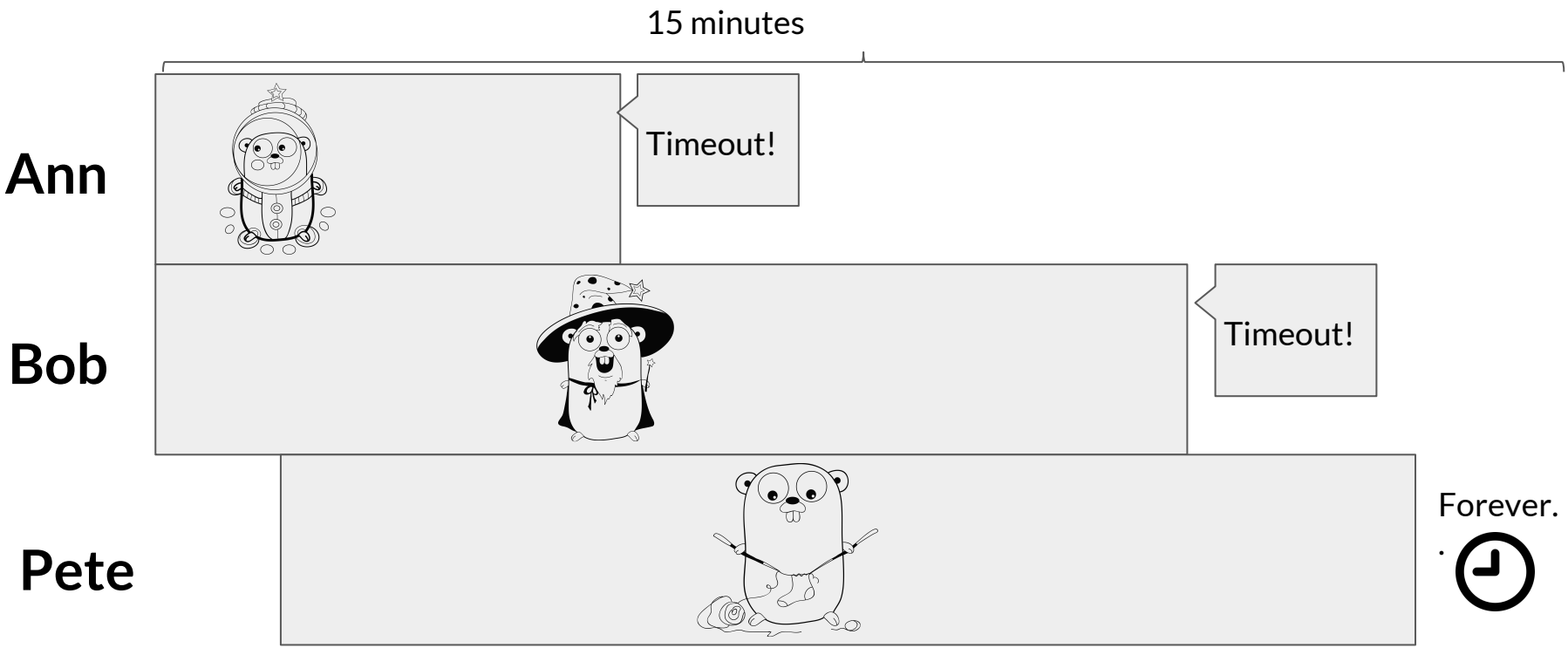
Sock knitter



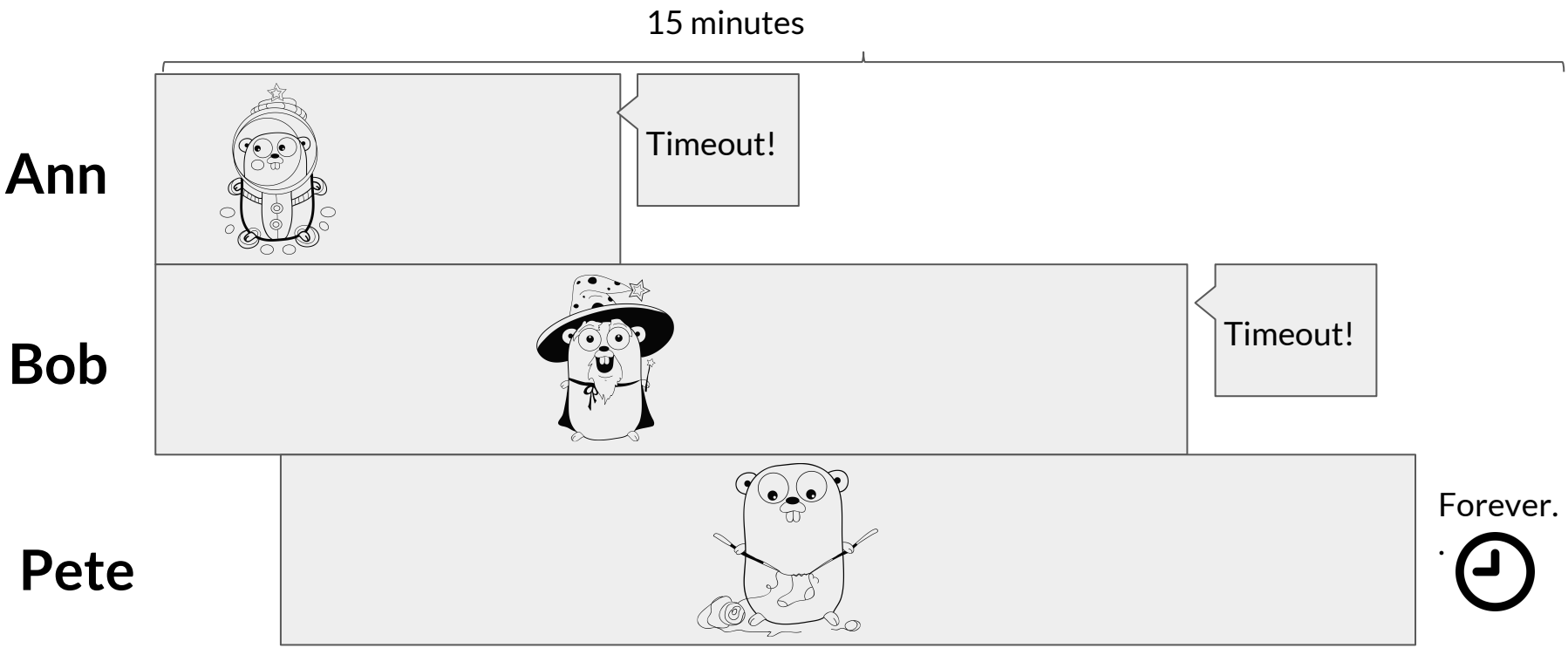
With Timeouts



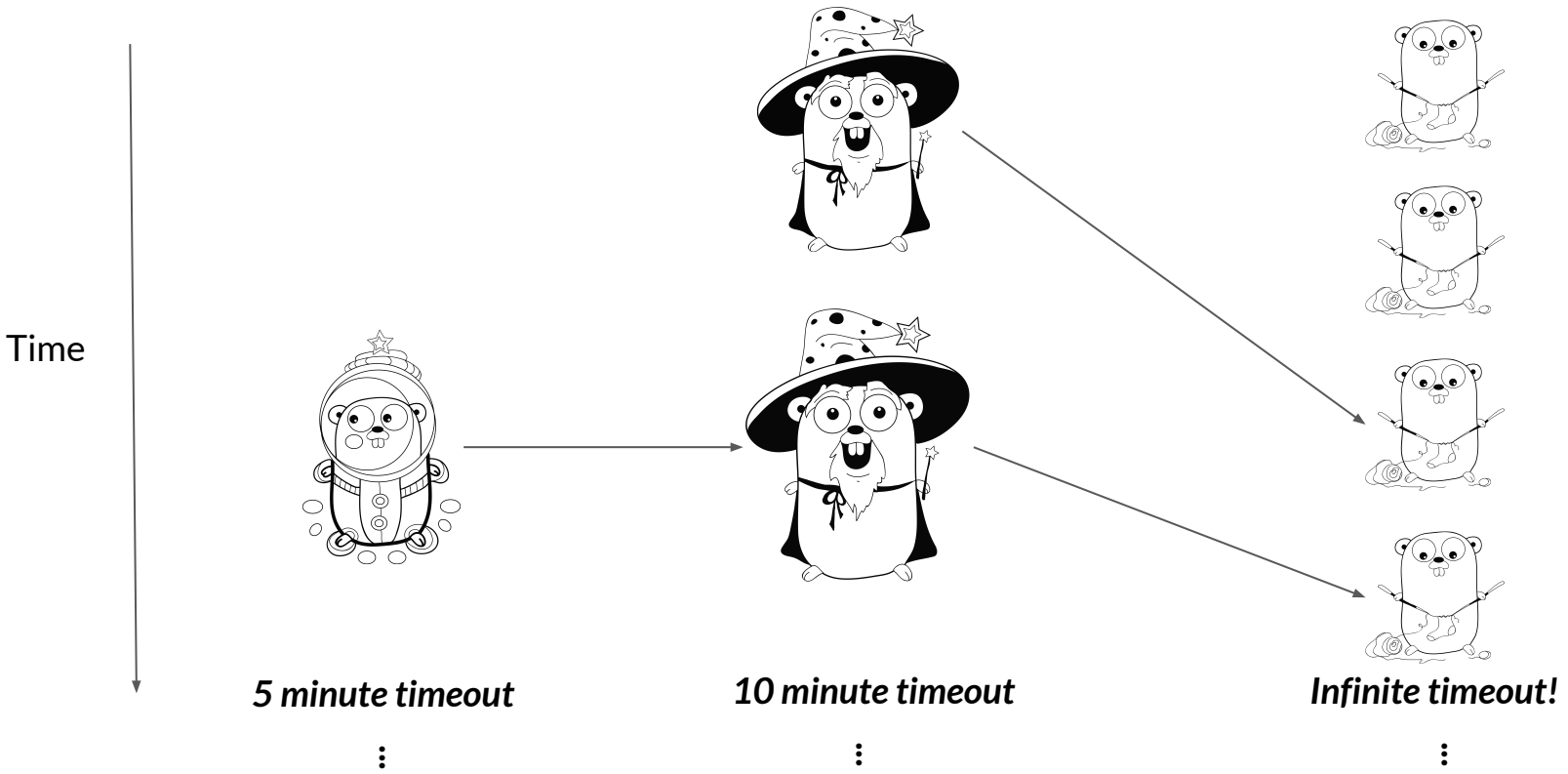
Trace View



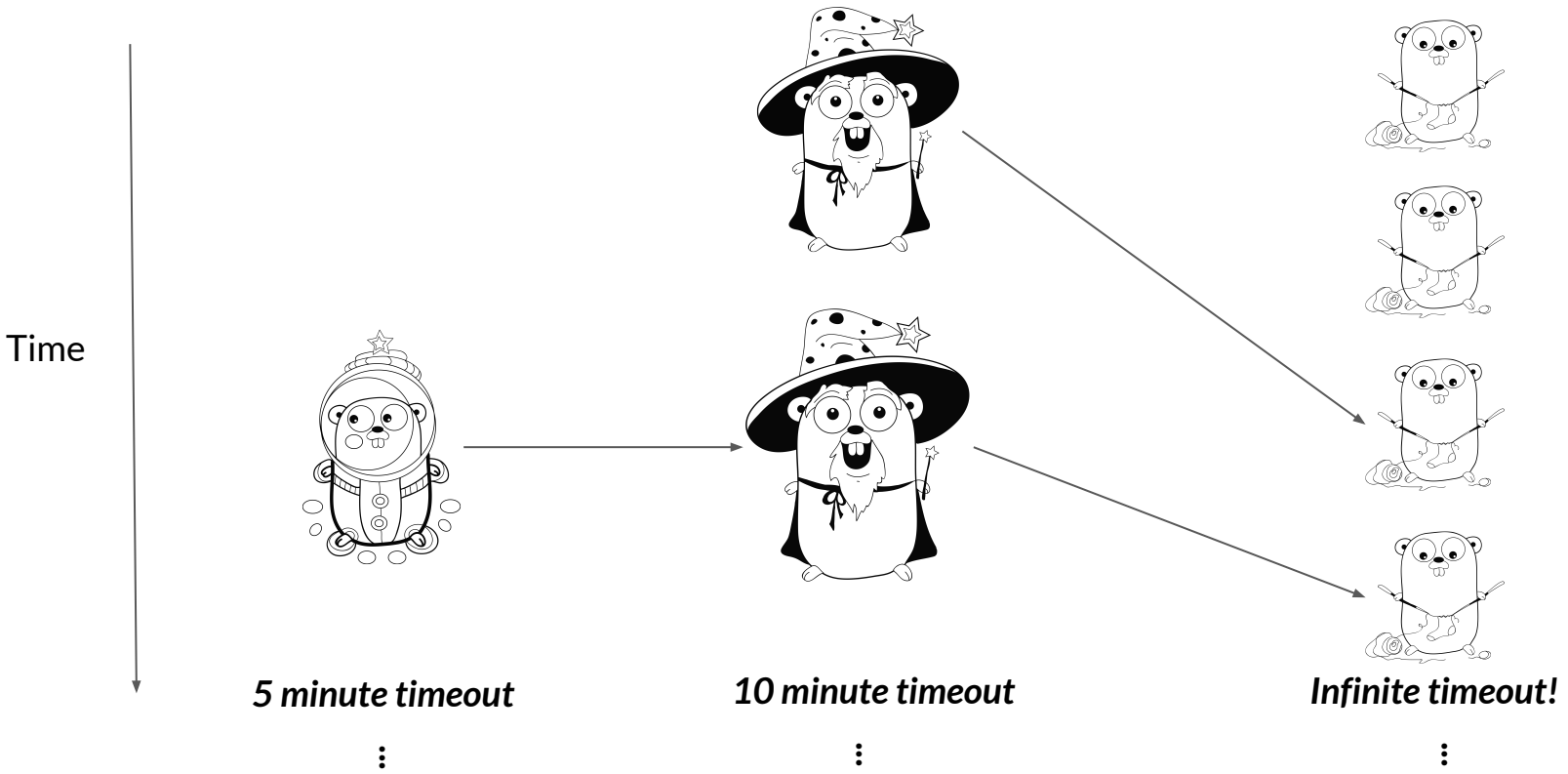
Trace View



Cascading Failure!



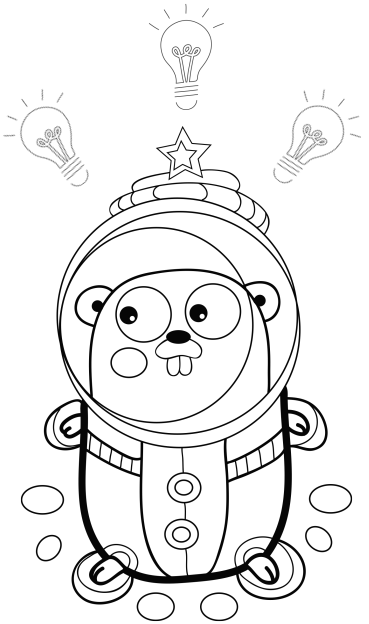
Cascading Failure!



What if they communicate deadlines?

Time Duration **vs** Absolute Time

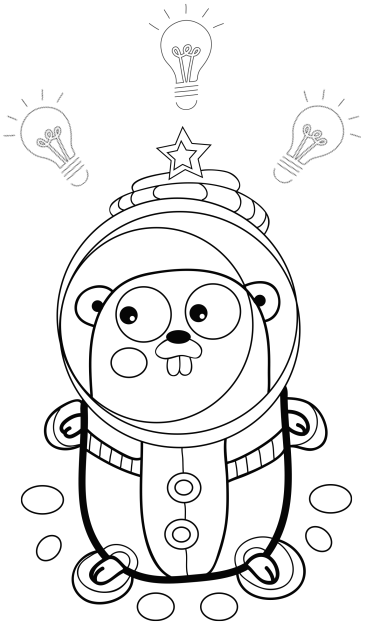
5 seconds **vs** 12:30:15



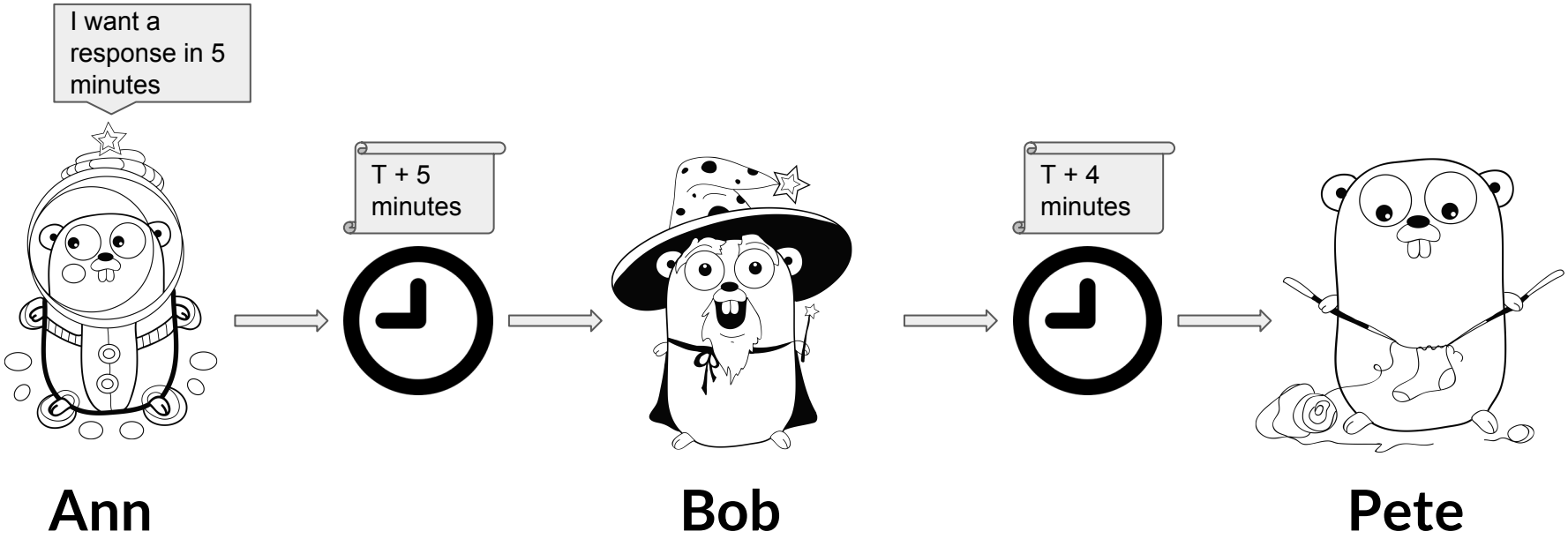
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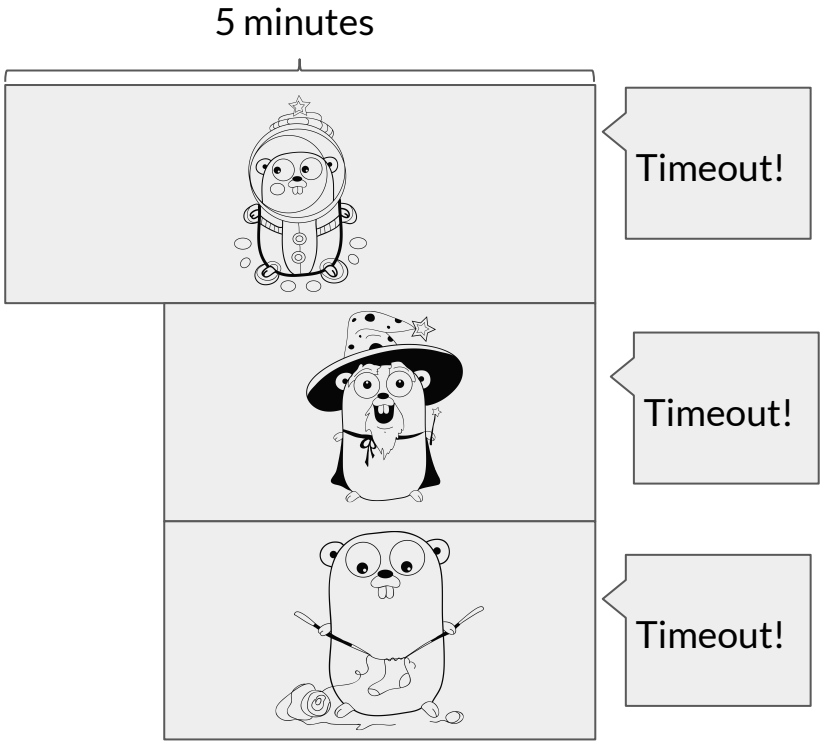
5 seconds **vs** 12:30:15



With Deadlines

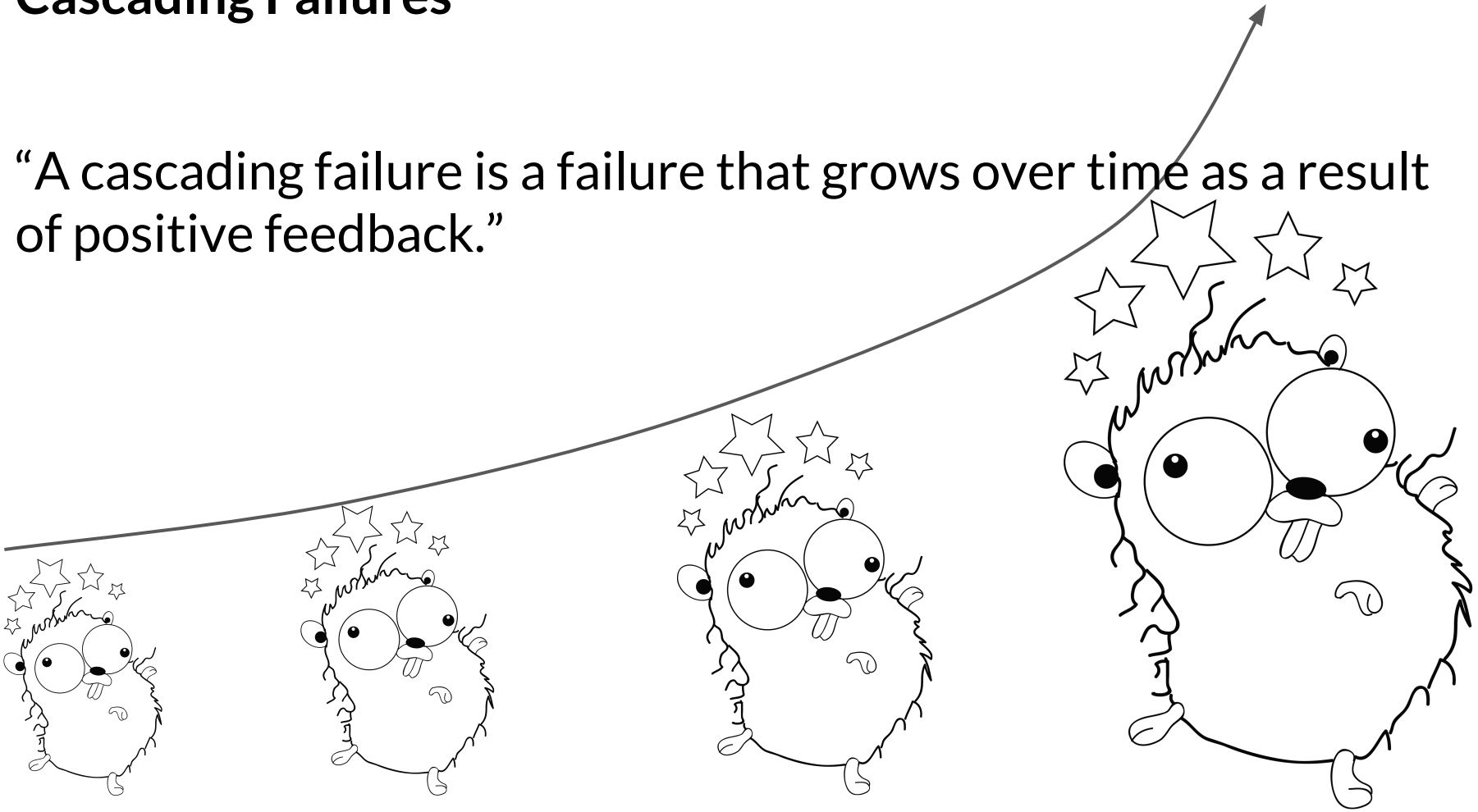


Trace View: Deadlines

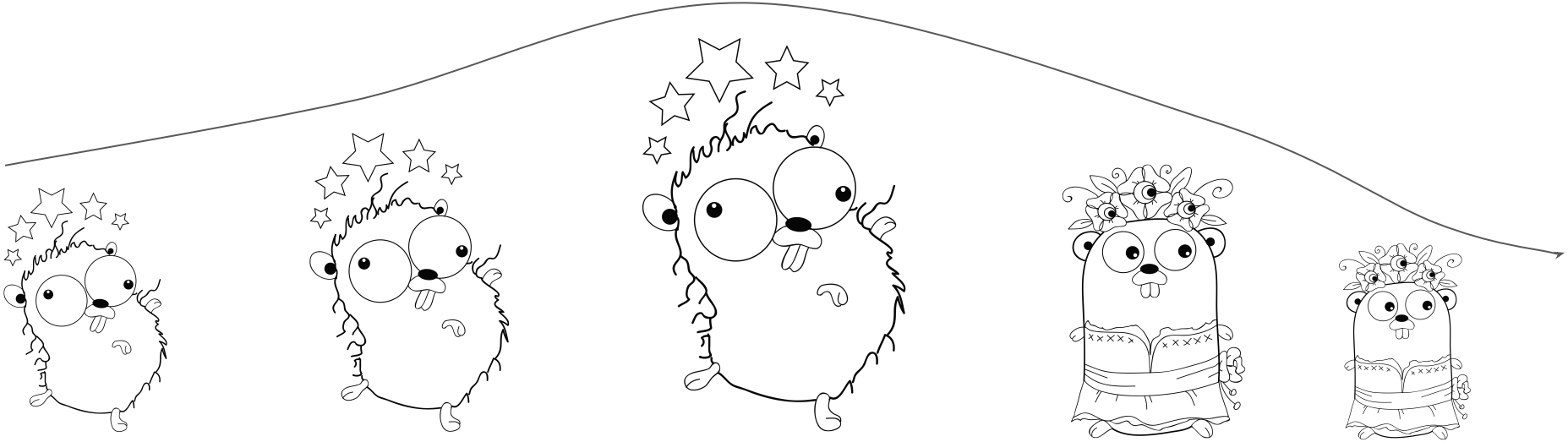


Cascading Failures

“A cascading failure is a failure that grows over time as a result of positive feedback.”



With deadlines..



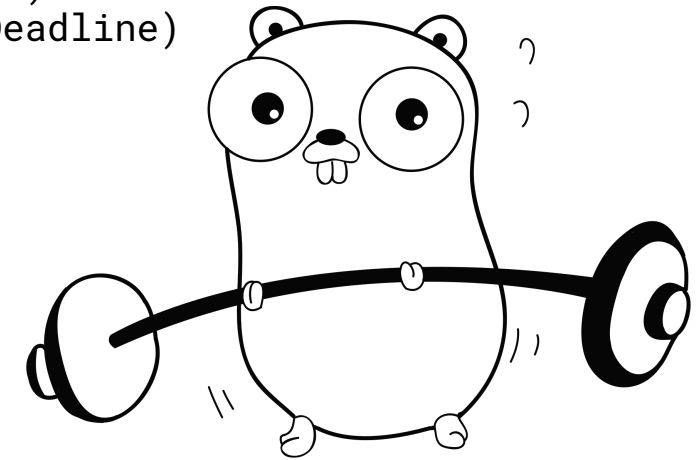
Implementation

HTTP Headers

```
GET /service.A/Method
X-Timeout: 2019-3-24 12:13:05
```

gRPC Deadline

```
deadline := time.Now().Add(500 * time.Millisecond)
ctx, cancel := context.WithDeadline(ctx, clientDeadline)
```



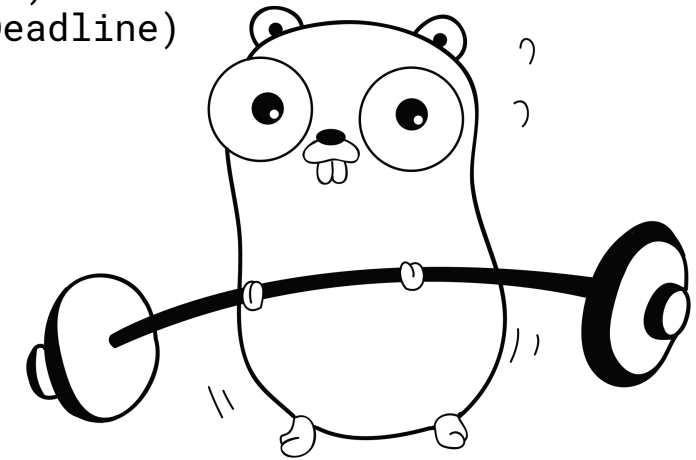
Implementation

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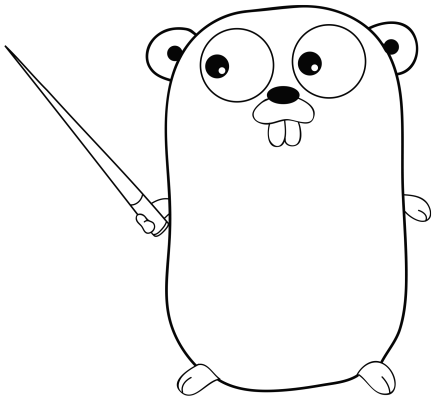
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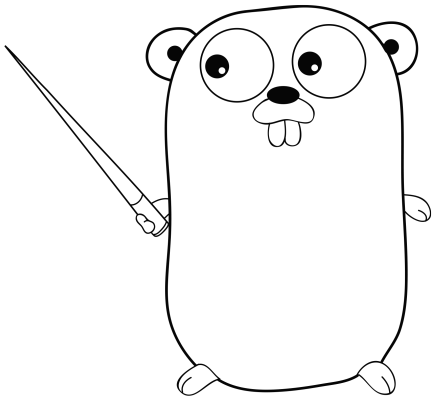
Translating into Timeouts

```
// time remaining = deadline - now
timeout := deadline.Sub(time.Now())
```



Translating into Timeouts

```
// time remaining = deadline - now
timeout := deadline.Sub(time.Now())
```



Thanks!

Contact Info

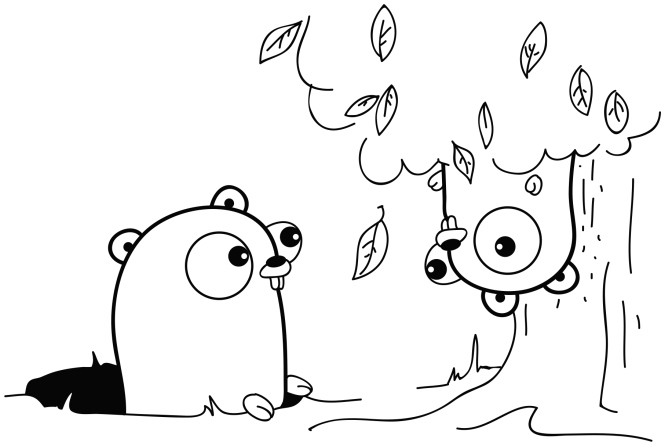
Twitter: @paulhenry
Email: paul.henry@coinbase.com

Come talk to us at our booth **38**!

coinbase

Reading List

https://bit.ly/2HykYV8



Shoutout to Matt Holt for the Gophers!
https://github.com/mholt/golang-graphics

Thanks!

Contact Info

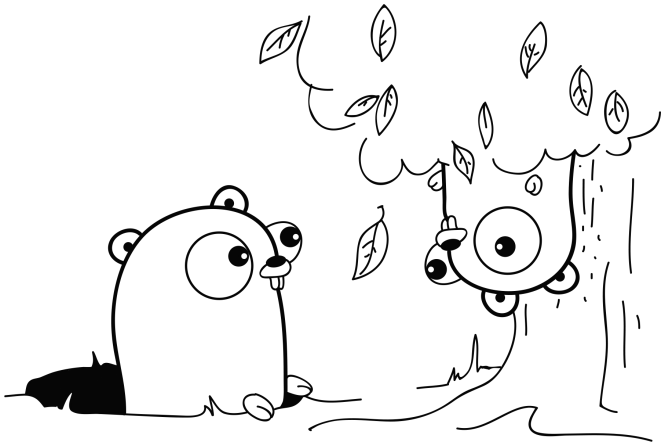
Twitter: @paulhenry
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coinbase

Reading List

https://bit.ly/2HykYV8



Shoutout to Matt Holt for the Gophers!
https://github.com/mholt/golang-graphics

SREcon Americas 2019

Lightning Talks



Doughnut Dilemma

@ravilach - AppDynamics

But Why?



>

MESOS

kubernetes

I can’t eat JSON

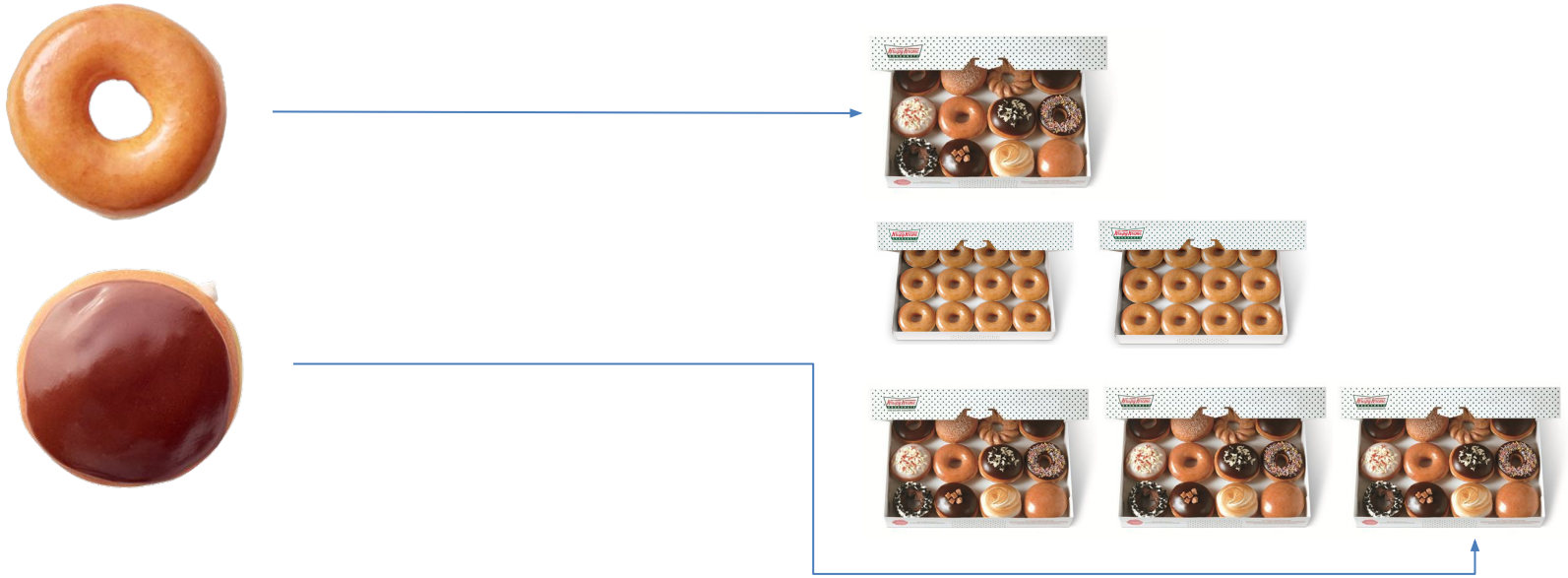


>

```
    "HAPROXY_GROUP": "external",
    "HAPROXY_DEPLOYMENT_GROUP": "doughnut-api-decorator"
  },
  "maxLaunchDelaySeconds": 3600,

  "gpus": 0,
  "networks": [
    {
      "mode": "container/bridge"
    }
  ],
  "requirePorts": false,
  "upgradeStrategy": {
    "maximumOverCapacity": 1,
    "minimumHealthCapacity": 1
  },
  "killSelection": "YOUNGEST_FIRST",
  "unreachableStrategy": {
    "inactiveAfterSeconds": 0,
    "expungeAfterSeconds": 0
  },
  "fetch": [],
  "constraints": []
}
```

I want a Doughnut



Pillars (ˈpɪlɚ)

Schedule



Assignment



Constraints

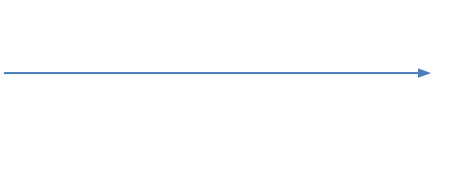


Eligibility





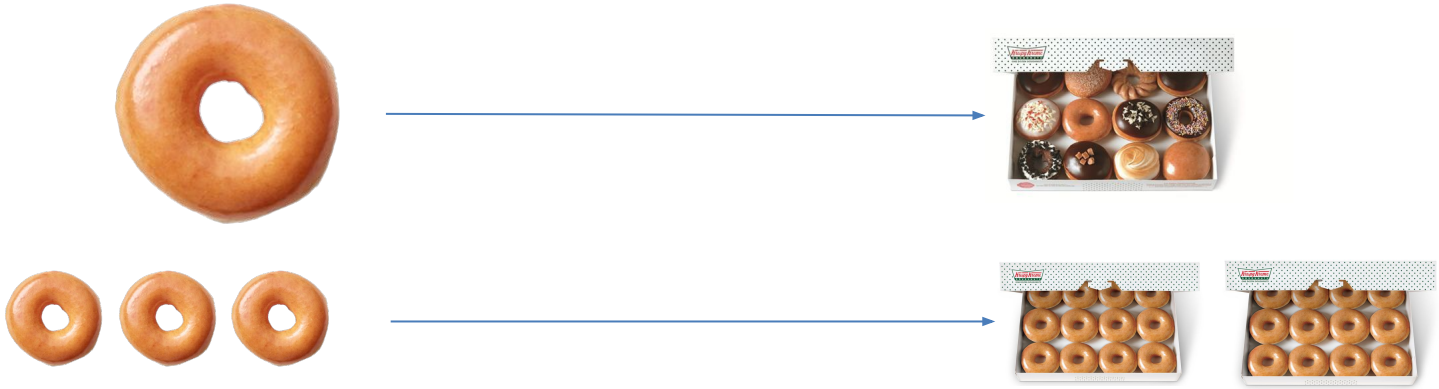




Reservations

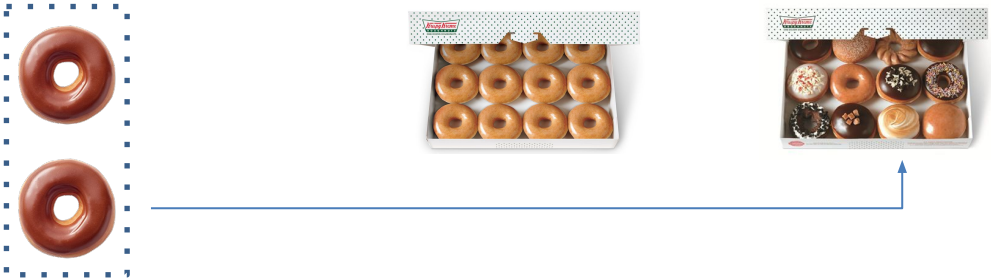


Dominant Resource Fairness

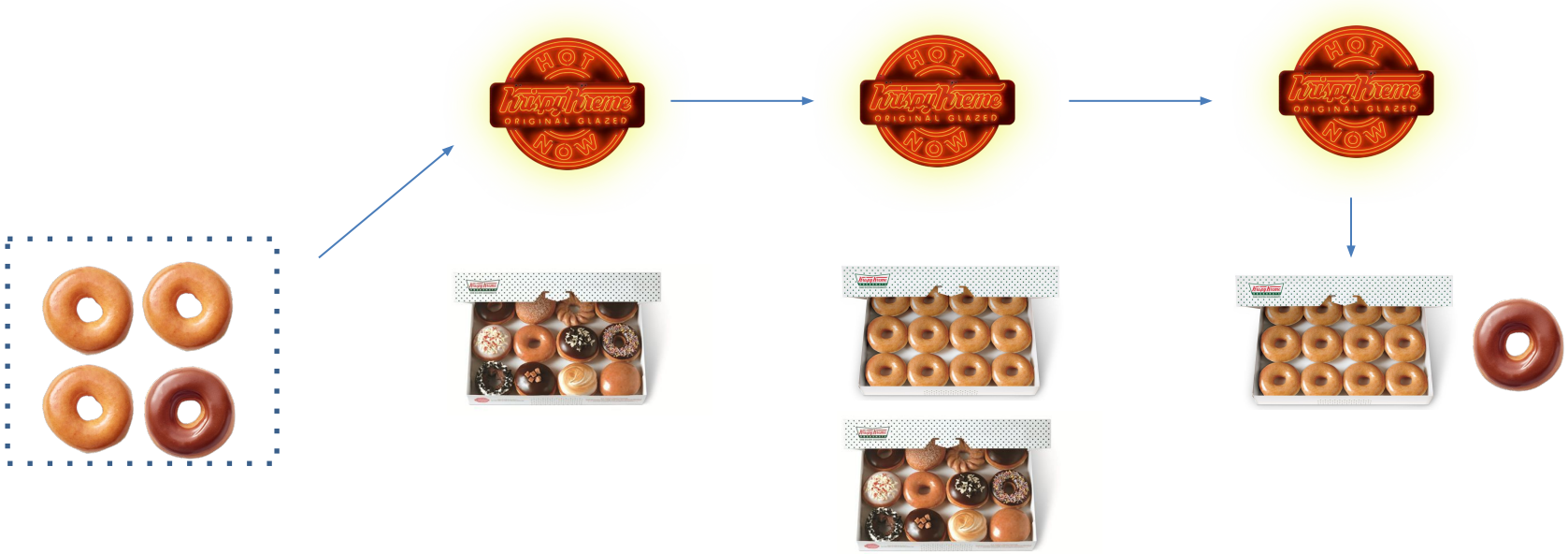


Schedulers (ˈskɛdjələ)

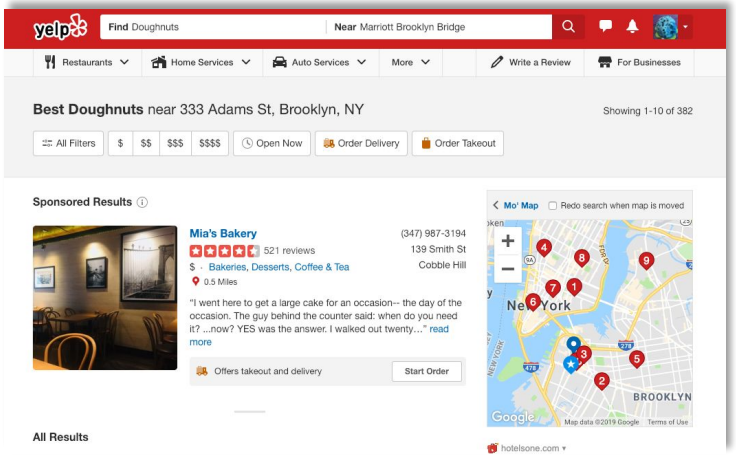
Monolithic Scheduling

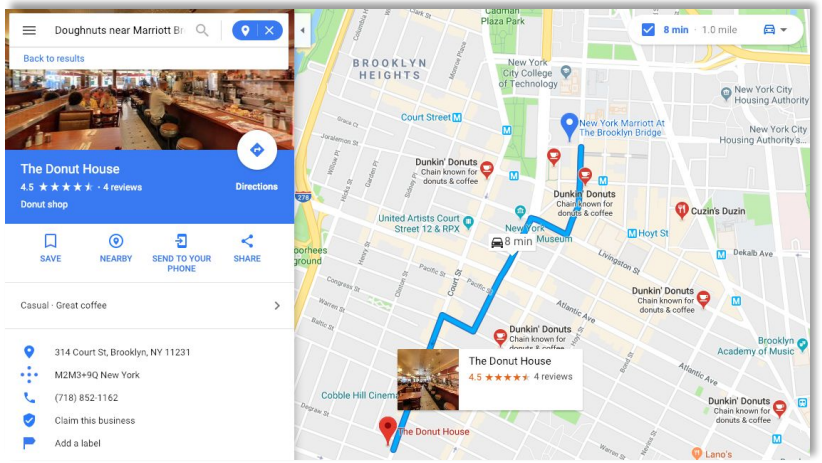


Two Level Scheduling



Shared State Scheduling











Thank You! Let’s go get some doughnuts!

@ravilach - AppDynamics

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Lightning Talks



SRE Automation

Focus on High-Return Customer and Business Outcomes

Aniket Kulkarni,
anikekulkarni@PayPal.com

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237M
Consumer Accounts

19M
Merchant Accounts

We are a trusted part of people's financial lives and a partner to merchants in 200+ markets around the world.

PayPal's global customer service team provide support in more than 20 languages.

Our customers can accept payments in 100+ currencies, withdraw funds to their bank accounts in 56 currencies, shop cross-border across 19K + corridors, and hold balances in their PayPal accounts in 25 currencies.

$15.45B†
REVENUE

$578B
TOTAL PAYMENT VOLUME[1]

9.9B
PAYMENT TRANSACTIONS[2]

$227B
MOBILE PAYMENT VOLUME

3.7B
MOBILE PAYMENT TRANSACTIONS

†Non-GAAP.
1 **Total Payment Volume (TPV):** The value of payments, net of reversals, successfully completed through our Payments Platform or enabled by PayPal via a partner payment solution, not including gateway exclusive transactions.
2 **Payment Transactions**: The total number of payments, net of payment reversals, successfully completed through our Payments Platform, excluding transactions processed through our gateway and Paydiant products.

PayPal ©2018 PayPal Inc. Confidential and proprietary.

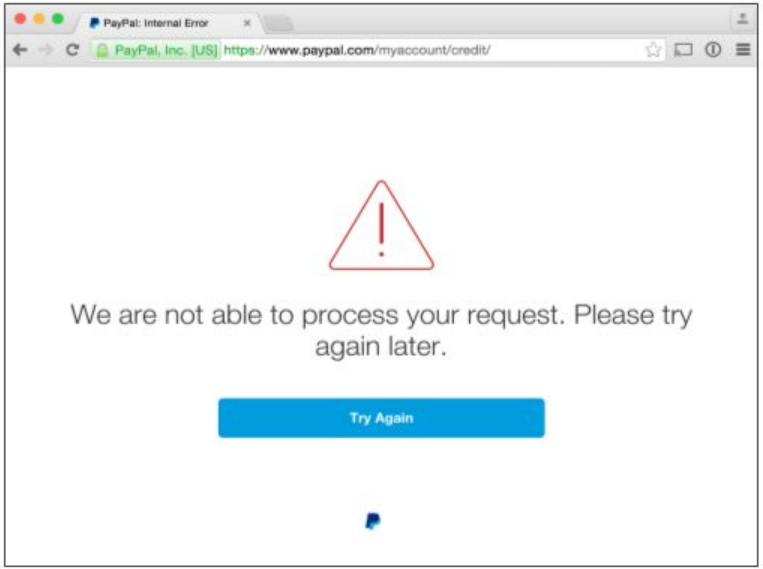


Failed Customer Interactions

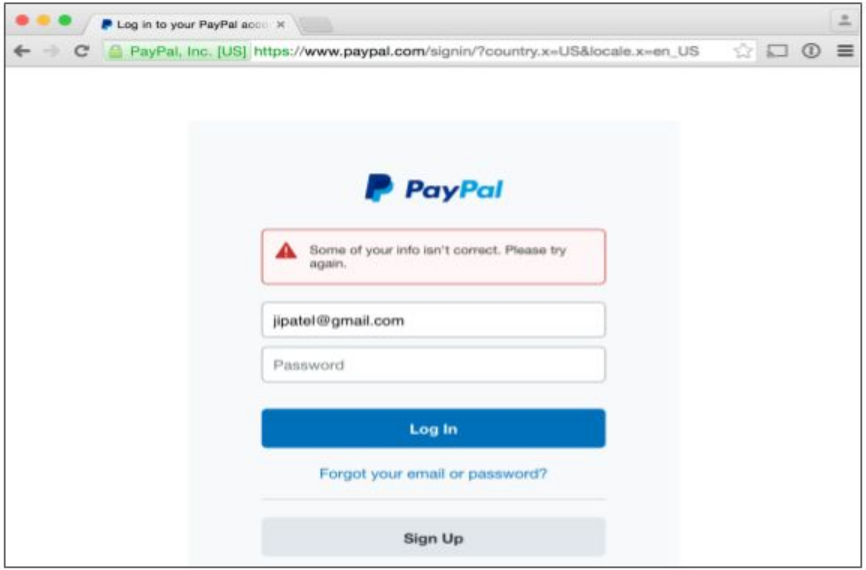
©2017 PayPal Inc. Confidential and proprietary.

What is an FCI?

Intended actions that a customer is unable to complete using functionality offered by PayPal and allowed by PayPal policies.



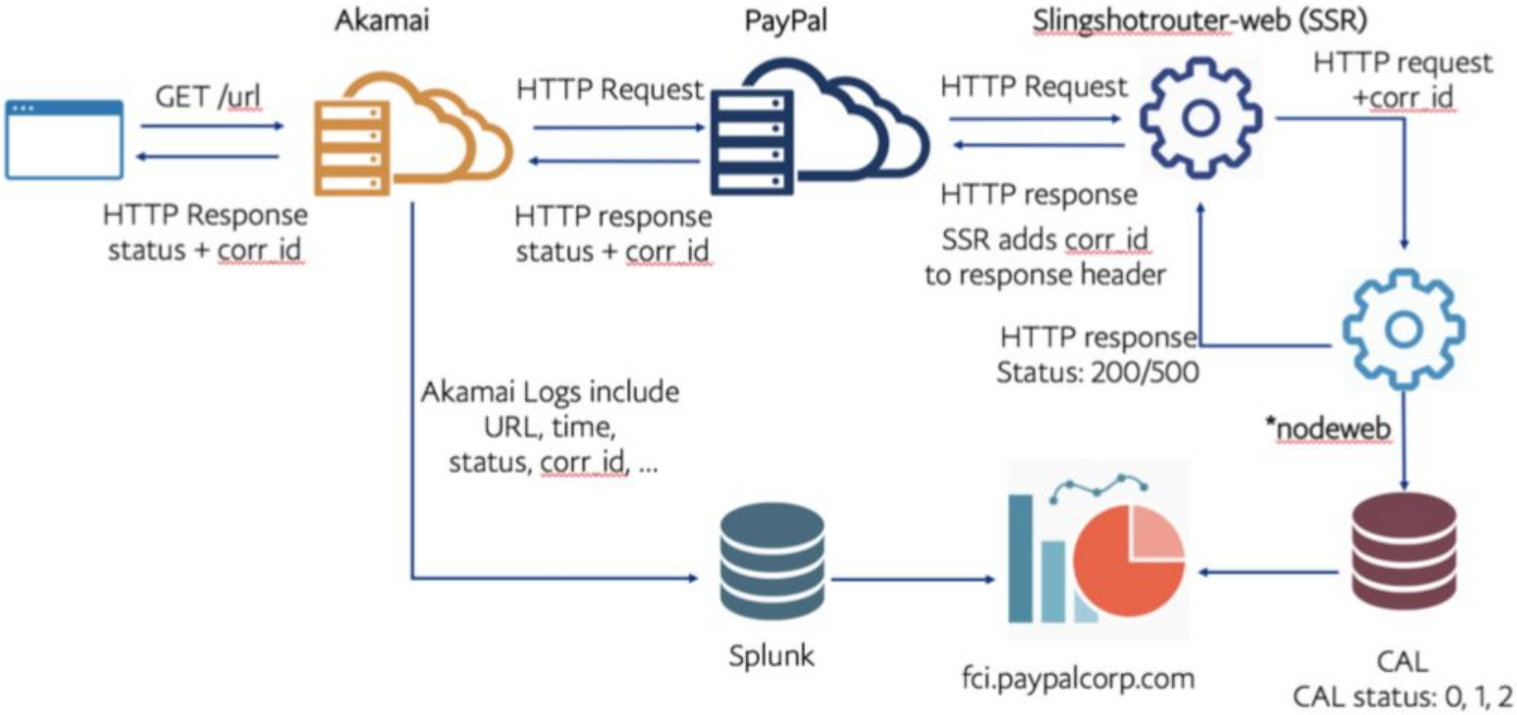
FCI



NOT FCI

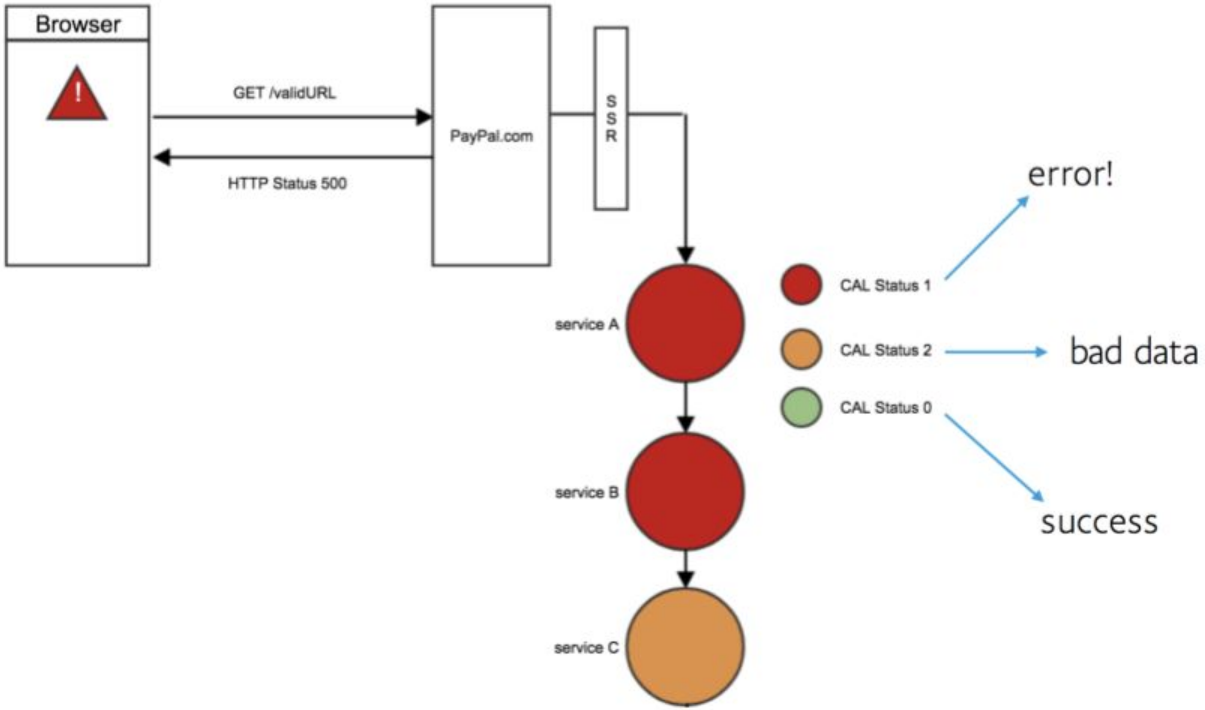
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Implementation



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Implementation



Critical to Success

- Customer View
- Attribution
- Accountability
- Logging Hygiene
- Tactical Team to Fix
- Real Time Code Rollback

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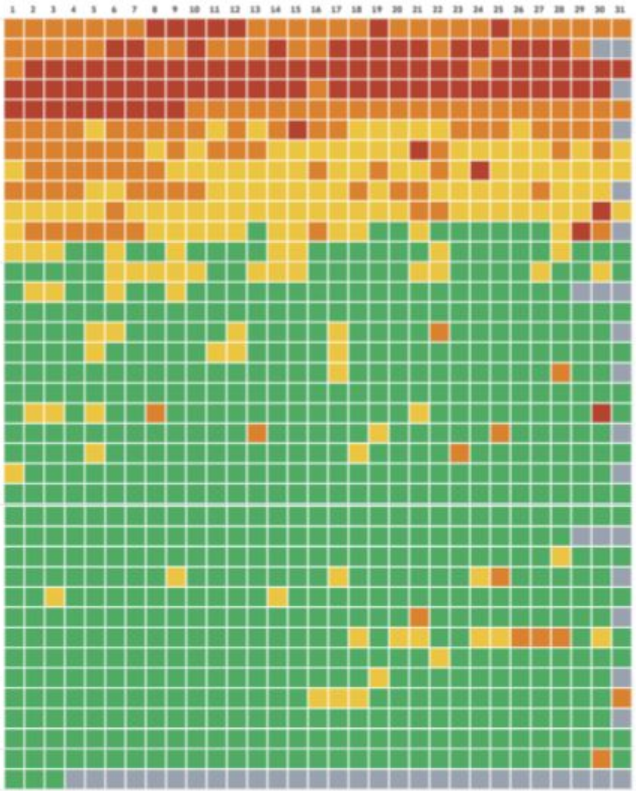
Outcome of Focus on Failed Customer Interactions

2016
99.932%

2017
99.992%

2018
99.995%

2019
99.997%



1% Revenue Lift in 2017
> $100 Million

Reduction in Call Center Costs
$20 Million/Year

First Day with 99.999% + in 2019
These are common now

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Merchant Monitoring Platform

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Merchant Monitoring Platform

Problem Overview

- 10 Million Merchants and growing (circa 2015).
- Issues for individual merchants were noise in the metrics stream
- Top merchant issues would go undetected
- Our customers were hurting
- PayPal was losing revenue

Solution

- Scalable platform for real time alerts and proactive alerts ***per merchant***
- Customer Driven Innovation at its finest

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Merchant Monitoring Platform

Implementation

- Analytics Data Store - Apollo Hadoop Cluster
- Real-time Processing - Storm on Apollo
- Front End Application -Kraken/NodeJs
- Front End Data Store –Riak
- Compute – VMs on OpenStack PayPal Cloud

Coverage

- Scalable platform for real time alerts and proactive alerts for each individual merchant
- Generate recommendations for integration issues
- Analytics for drop off by dimensions
- Enabled by Customer Driven Innovation with cross functional involvement

190K Top Merchants Actively Monitored and Alerted
Capability to scale out to full Merchant Base

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Merchant Monitoring Platform

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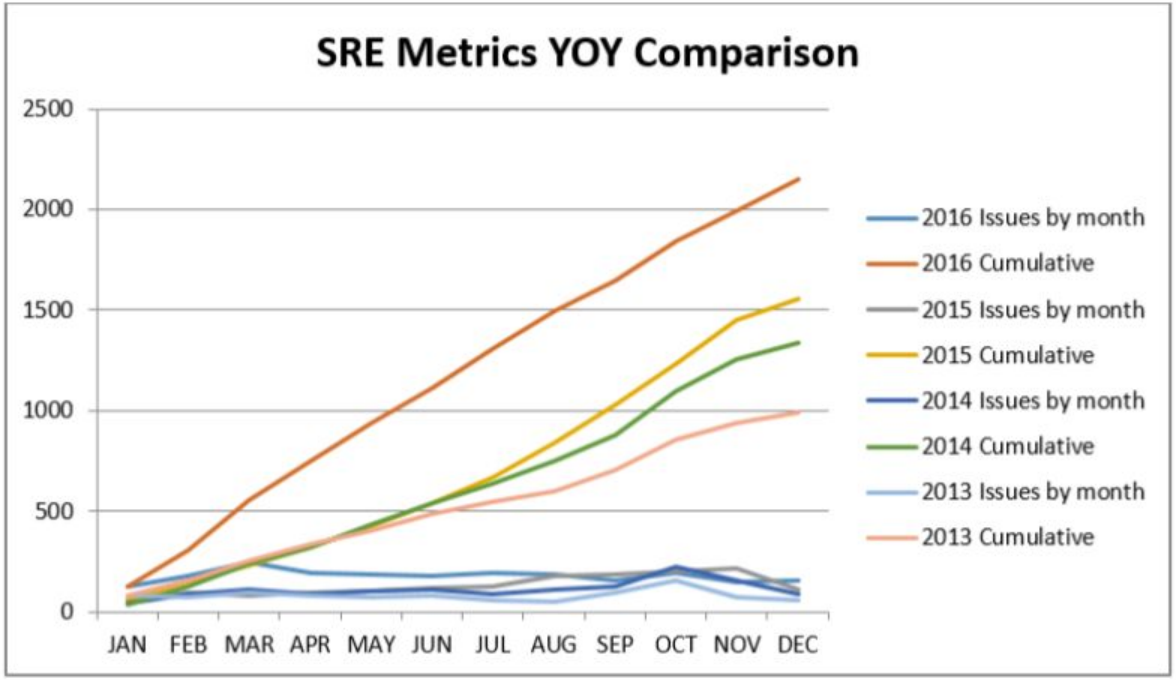


Customer Flow-Based Testing

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CFBT – Motivation & Benefit

Prevent over 50% of P0/P1 issues getting to the LIVE site

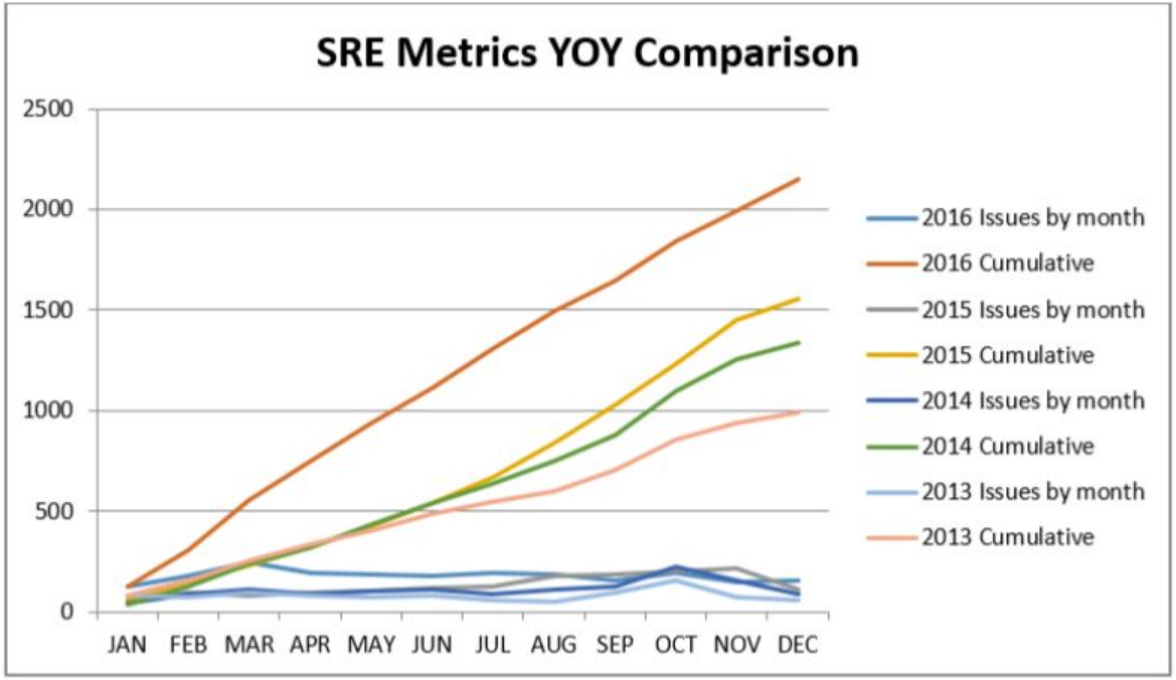


- Upward trend for P0/P1 issues
- Two P0s per week in 2016
- Two P1s per day in 2016
- An analysis of 18 months of data showed that **50% of P0/P1 issues could be avoided** by executing a comprehensive end-to-end test suite.

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Customer Flow Based Testing

Key Attributes & Technology

- Test from Customer Point View
- Gate to Delivery – Release Go/No Go
- Fast –Go/No Go decision in 5-7 minutes
- Reliable – No False Failures/Passes
- Inner Source Certified Test Case Repo

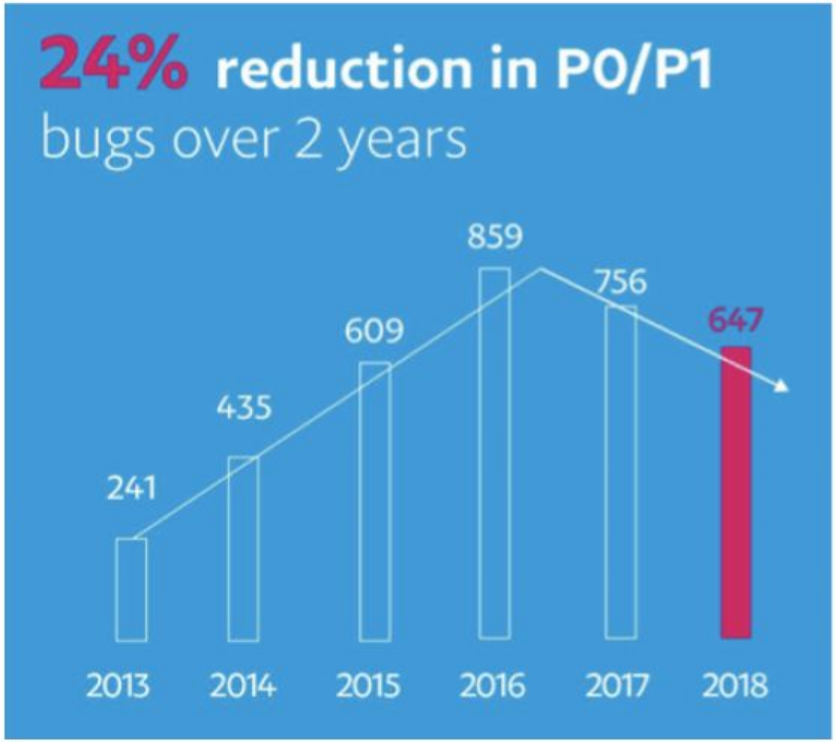


- Test Runner - Java
- System Configuration - Java
- Data Management App - Java MongoDB
- Tracking Console - NodeJS, Nginx, Angular JS
- Core – Java, Selion (WebDriver, iosdriver, Selendroid, appium, Maven and TestNG)

530 P0/P1 Incidents Avoided in 2018

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Outcomes



530 P0/P1 Issues Avoided in 2018

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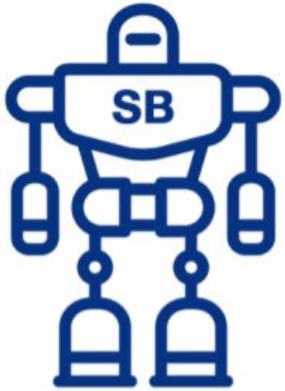


SiteBots

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PayPal SiteBots

Overview

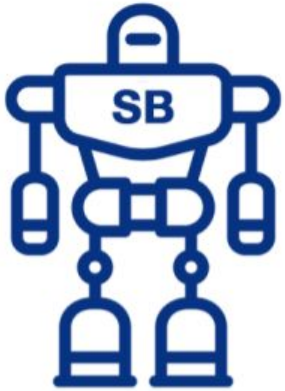


- Suite of self contained, automated software programs.
- Crawl the PayPal site looking for error conditions and unexpected conditions
- Detect, triage, remediate and report site issues with minimal or no human intervention.
- Avoid negative impact to customers and reduce MTTR
- Minimize Failed Customer Interactions

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PayPal SiteBots

Overview



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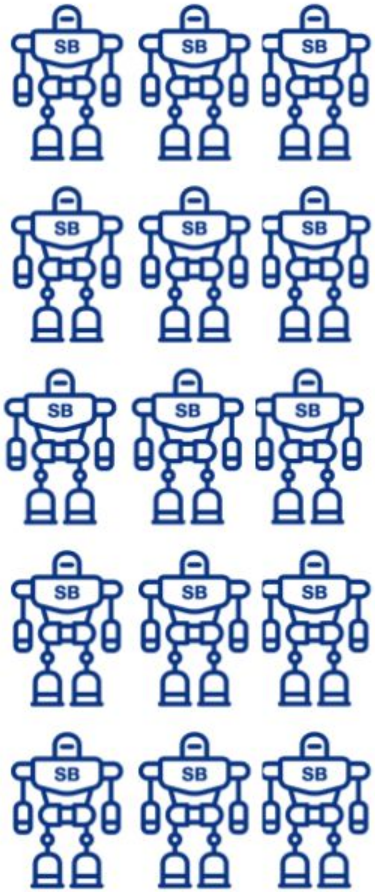
PayPal SiteBot Army

Coverage

- Business Transactions
  - Card Authentication Failure
  - Customer on-boarding failure
  - Risk Rule Drift
  - FOREX Rate Drift
  - Transactions per minute drift
- System Remediation
  - Datacenter Traffic Drop
  - Slow Responding Host
  - Version Mismatch
  - Connection Failure

27 Active SiteBots

80,800 Remediations



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SREcon Americas 2019

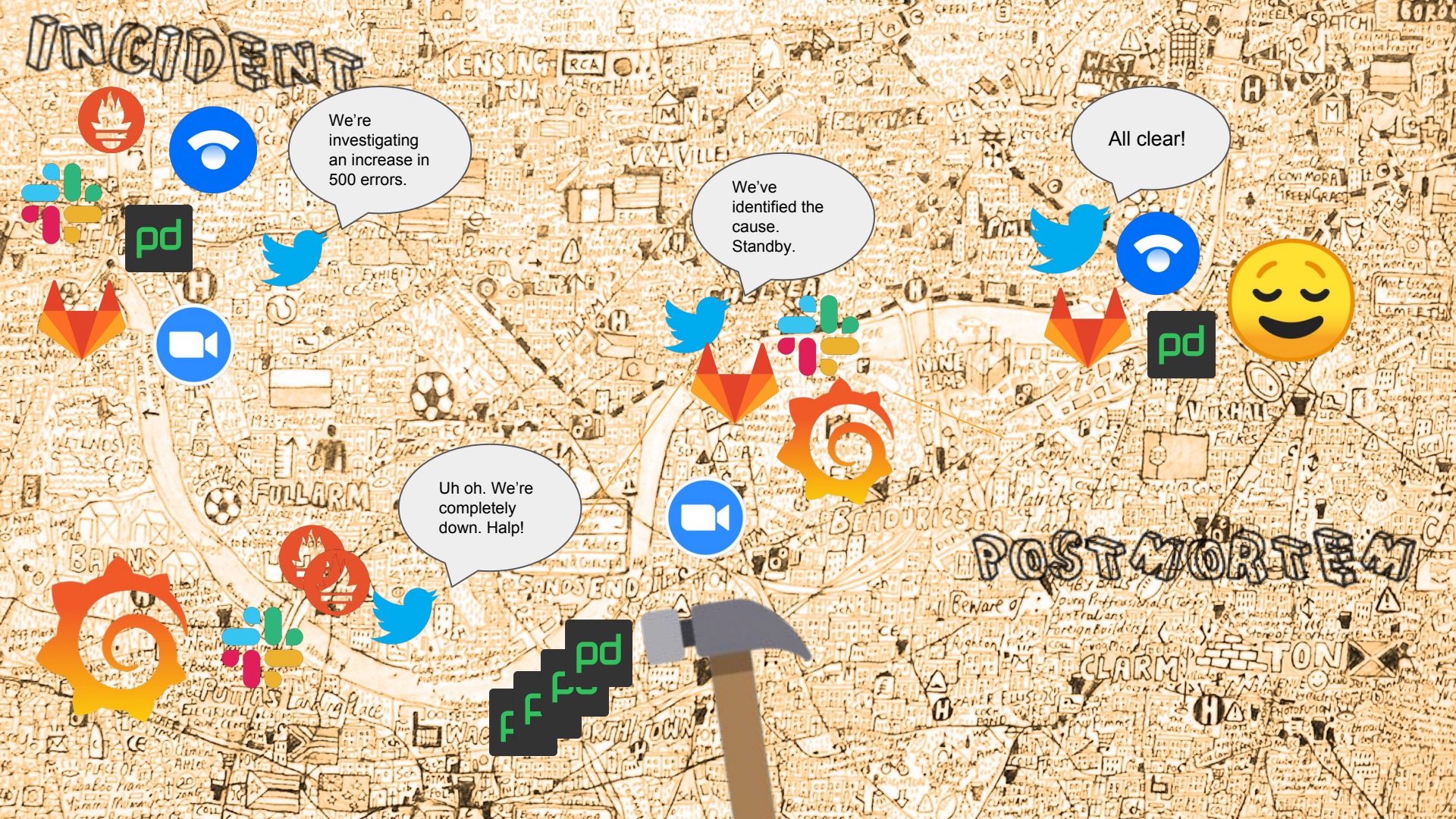
Lightning Talks

DURABLE DISORDER

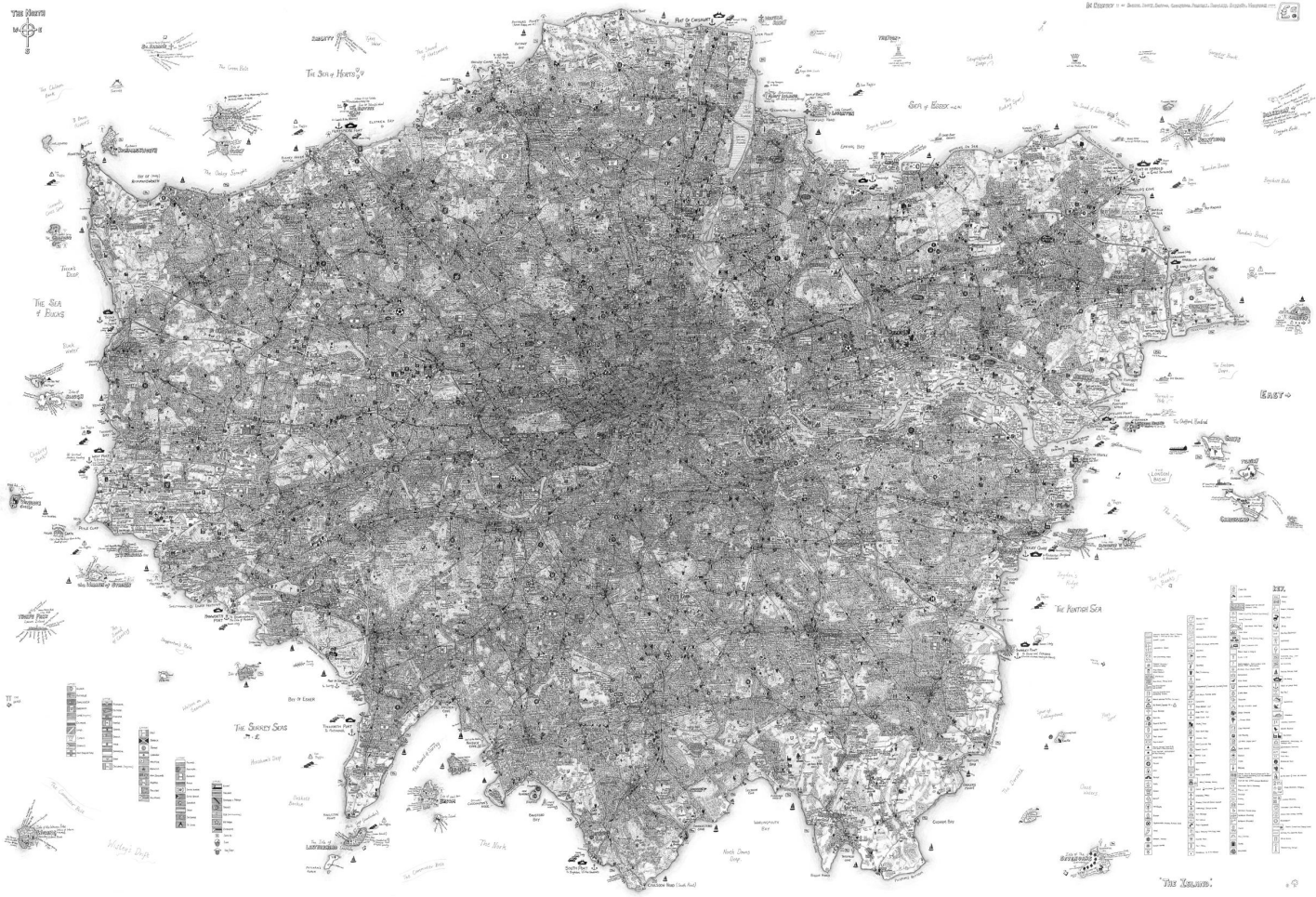
Anthony Sandoval

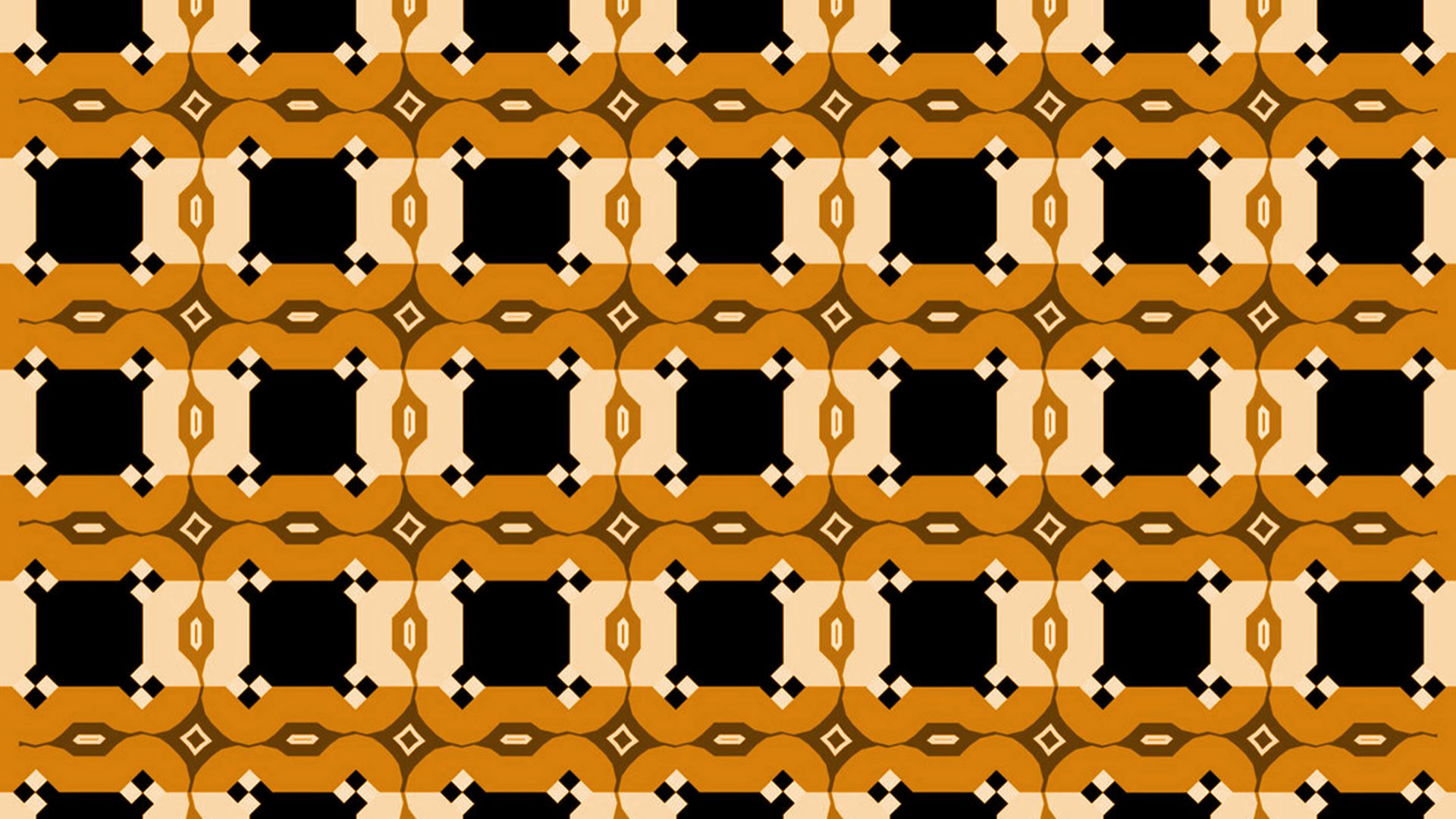



Credit NASA


INCIDENT
We're investigating an increase in 500 errors.
We've identified the cause. Standby.
All clear!
Uh oh. We're completely down. Halp!
POSTMORTEM


KENSINGTON
RCA
ALBERT HALL
V&A
BROMPTON
HARRODS
WEST MINSTER
VICTORIA
TATE
PIMLICO
CHELSEA
NINE ELMS
VAUXHALL
BATTERSEA
FULHAM
SANDS END
BARNS
PUTTAS Landing Place
WANDLE'S WORTH TOWN
CLAPHAM
Highest Life Expectancy Men & Women
Least Obese Adults
KENSINGTON & CHELSEA
Between the Bridges
Beware of Pickpockets
Beware of Flying Golf Balls
Beware of Falling Masonry
Beware of Low Flying Aircraft
Beware of Children
Beware of Trains
Beware of Dogs
Beware of Cyclists
Beware of Falling Trees
Beware of Snakes
Beware of Crocodiles
Beware of Lions
Beware of Tigers
Beware of Bears
Beware of Elephants
Beware of Rhinos
Beware of Hippos
Beware of Giraffes
Beware of Zebras
Beware of Monkeys
Beware of Gorillas
Beware of Orangutans
Beware of Chimpanzees
Beware of Baboons
Beware of Mandrills
Beware of Lemurs
Beware of Sloths
Beware of Armadillos
Beware of Anteaters
Beware of Pangolins
Beware of Aardvarks
Beware of Platypuses
Beware of Echidnas
Beware of Kangaroos
Beware of Wallabies
Beware of Koalas
Beware of Wombats
Beware of Tasmanian Devils
Beware of Quolls
Beware of Bilbies
Beware of Numbats
Beware of Dunnarts
Beware of Antechinuses
Beware of Planigales
Beware of Sminthopsises
Beware of Ningauis
Beware of Kowaris
Beware of Mulgaras
Beware of Brush-tailed Phascogales
Beware of Red-tailed Phascogales
Beware of Yellow-footed Antechinuses
Beware of Fat-tailed Dunnarts
Beware of Stripe-faced Dunnarts
Beware of Crest-tailed Mulgaras
Beware of Dusky Hopping-mice
Beware of Spinifex Hopping-mice
Beware of Plains Mice
Beware of Delicate Mice
Beware of Fawn Hopping-mice
Beware of Western Chestnut Mice
Beware of Shark Bay Mice
Beware of Desert Mice
Beware of Pebble-mound Mice
Beware of Long-haired Rats
Beware of Giant White-tailed Rats
Beware of Lesser Stick-nest Rats
Beware of Greater Stick-nest Rats
Beware of Bramble Cay Melomys
Beware of Fawn-footed Melomys
Beware of Grassland Melomys
Beware of Cape York Rat
Beware of Black-footed Tree-rats
Beware of White-footed Tree-rats
Beware of Golden-backed Tree-rats
Beware of Mountain Tree-rats
Beware of Lowland Tree-rats
Beware of Spectacled Hare-wallabies
Beware of Rufous Hare-wallabies
Beware of Banded Hare-wallabies
Beware of Desert Hare-wallabies
Beware of Black-striped Wallabies
Beware of Parma Wallabies
Beware of Whiptail Wallabies
Beware of Tammar Wallabies
Beware of Red-necked Wallabies
Beware of Quokkas
Beware of Pademelons
Beware of Tree-kangaroos
Beware of Musky Rat-kangaroos
Beware of Potoroos
Beware of Bettongs
Beware of Rat-kangaroos
Beware of Bilbies
Beware of Bandicoots
Beware of Echidnas
Beware of Platypuses
Beware of Monotremes
Beware of Marsupials
Beware of Placentals
Beware of Mammals
Beware of Reptiles
Beware of Amphibians
Beware of Fish
Beware of Invertebrates
Beware of Plants
Beware of Fungi
Beware of Bacteria
Beware of Archaea
Beware of Viruses
Beware of Prions
Beware of Nothing
Beware of Everything
Beware of Yourself
Beware of Me
Beware of You
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The North
The Sea of Hertz
Sea of Essex
The Sea of Bucks
East
The Kentish Sea
The Surrey Seas
"The Xelands."

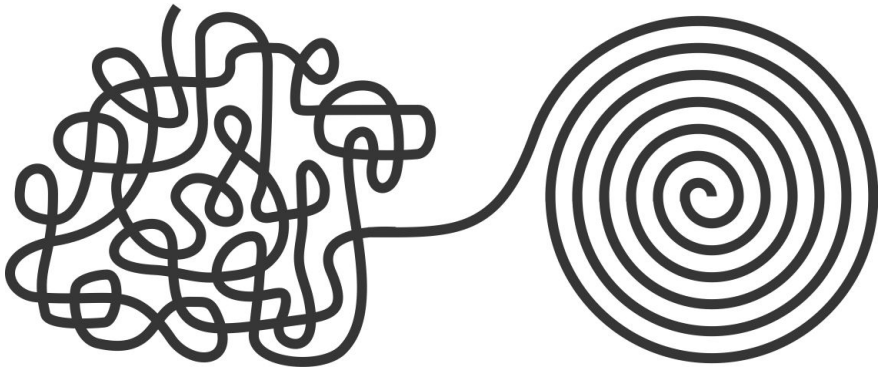


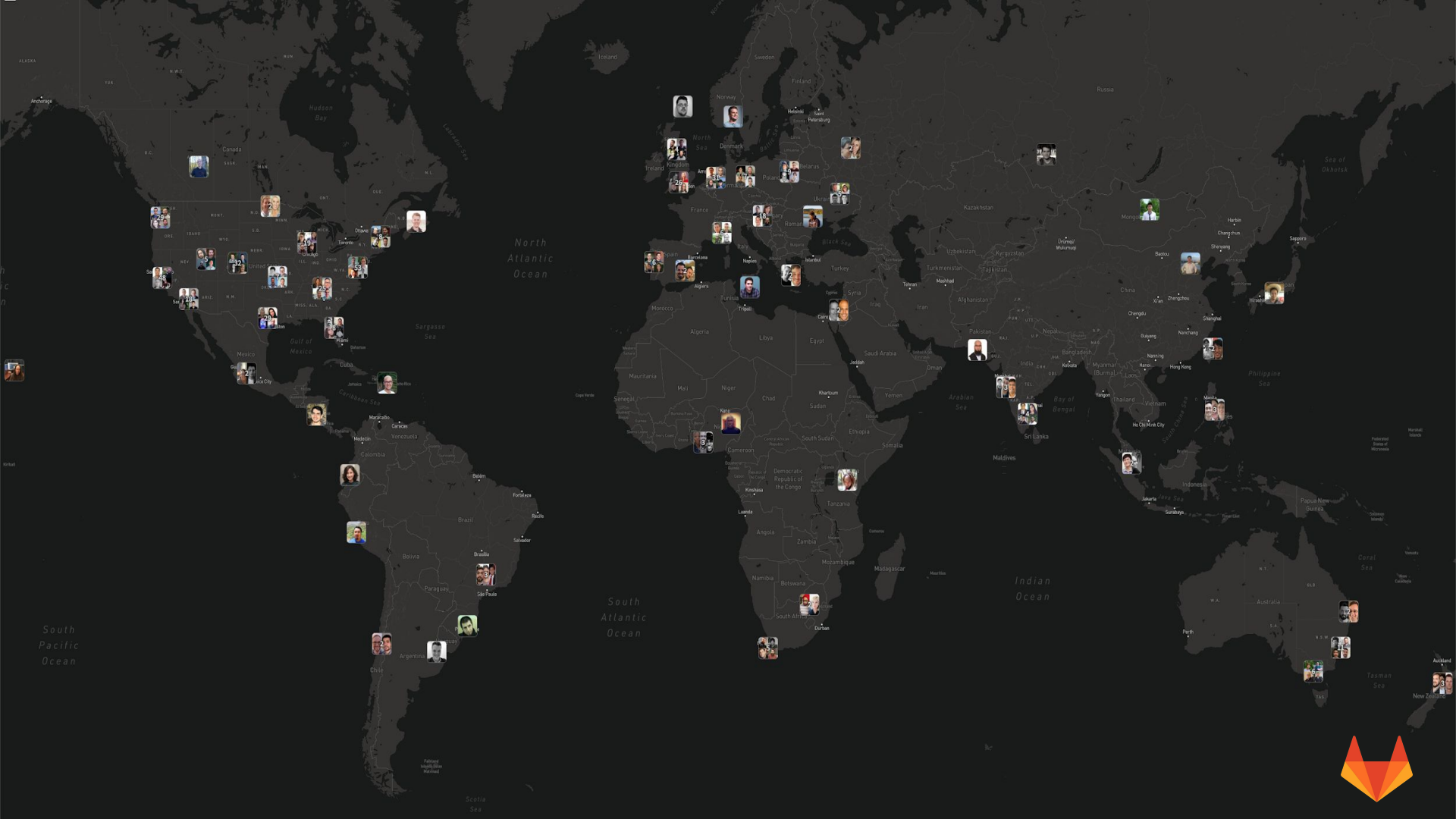
du·ra·ble dis·or·der

/ˈd(y)o͝orəb(ə)l ˌdisˈôrdər/

noun

1. **a set of processes that structure responses to unpredictable events and information such that actions and outcomes are highly predictable**
   “There is durable disorder in the production environment.”



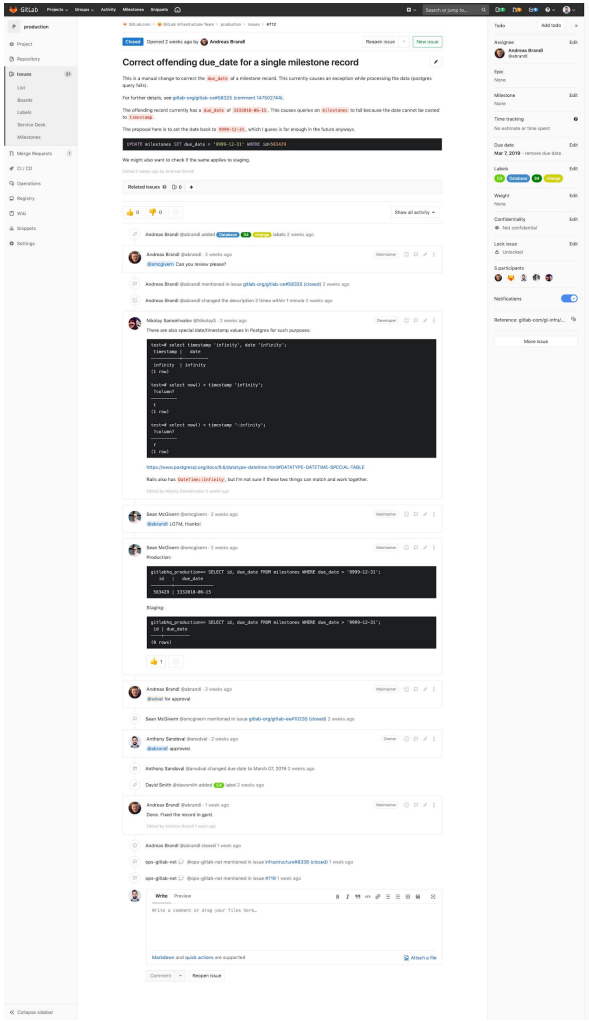

North Atlantic Ocean
South Atlantic Ocean
South Pacific Ocean
Indian Ocean
Hudson Bay
Gulf of Mexico
Sargasso Sea
Caribbean Sea
North Sea
Black Sea
Arabian Sea
Bay of Bengal
South China Sea
Philippine Sea
Coral Sea
Tasman Sea
Sea of Okhotsk
Canada
United States
Mexico
Cuba
Jamaica
Colombia
Venezuela
Brazil
Bolivia
Paraguay
Argentina
Chile
Peru
Ecuador
Iceland
Ireland
United Kingdom
France
Spain
Portugal
Italy
Germany
Poland
Belarus
Ukraine
Romania
Sweden
Finland
Norway
Denmark
Russia
Kazakhstan
Uzbekistan
Kyrgyzstan
Tajikistan
Turkmenistan
Mongolia
China
Afghanistan
Iran
Iraq
Turkey
Syria
Saudi Arabia
Egypt
Libya
Algeria
Morocco
Tunisia
Mauritania
Mali
Niger
Chad
Sudan
Nigeria
Senegal
Ethiopia
South Sudan
Somalia
Kenya
Democratic Republic of the Congo
Tanzania
Angola
Zambia
Mozambique
Namibia
Botswana
South Africa
Madagascar
Pakistan
India
Nepal
Bangladesh
Myanmar (Burma)
Thailand
Vietnam
Laos
Sri Lanka
Maldives
Indonesia
Malaysia
Philippines
Australia
New Zealand
Papua New Guinea
Japan
Anchorage
Toronto
Ottawa
Miami
Mexico City
Havana
Caracas
Medellín
Bogotá
Lima
Quito
Belém
Fortaleza
Recife
Salvador
Brasília
São Paulo
Buenos Aires
Santiago
Barcelona
Naples
Algiers
Tunis
Tripoli
Cairo
Istanbul
Tehran
Mashhad
Kabul
Karachi
Kolkata
Dhaka
Yangon
Hanoi
Ho Chi Minh City
Hong Kong
Taipei
Shanghai
Nanchang
Zhengzhou
Xi'an
Chengdu
Guiyang
Nanning
Changchun
Harbin
Shenyang
Sapporo
Hiroshima
Baotou
Ürümqi/Wulumuqi
Jakarta
Surabaya
Perth
Auckland
Durban
Kano
Khartoum
Jeddah
Yemen
Oman
Cameroon
Kinshasa
Luanda
Namibia
Maurice
Cape Verde
Senegal
Gulf of Guinea
Caribbean Sea
Hudson Bay
Labrador Sea
Baffin Bay
Greenland Sea
Barents Sea
Kara Sea
Laptev Sea
East Siberian Sea
Chukchi Sea
Beaufort Sea
Bering Sea
Sea of Japan
Yellow Sea
East China Sea
South China Sea
Philippine Sea
Arafura Sea
Timor Sea
Coral Sea
Tasman Sea
Great Australian Bight
Gulf of Carpentaria
Great Barrier Reef
Bass Strait
Gulf of Mexico
Sargasso Sea
Caribbean Sea
Mediterranean Sea
Red Sea
Persian Gulf
Gulf of Oman
Arabian Sea
Bay of Bengal
Andaman Sea
Gulf of Thailand
Java Sea
Banda Sea
Celebes Sea
Sulu Sea
Gulf of Aden
Gulf of Guinea
Gulf of Mexico
Gulf of California
Gulf of Alaska
Gulf of Carpentaria
Great Australian Bight
Bass Strait
Cook Strait
Foveaux Strait
Tasman Sea
Coral Sea
Great Barrier Reef
Torres Strait
Arafura Sea
Timor Sea
Banda Sea
Celebes Sea
Sulu Sea
Java Sea
Andaman Sea
Gulf of Thailand
Gulf of Oman
Persian Gulf
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Mediterranean Sea
Gulf of Guinea
Gulf of Mexico
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Gulf of Thailand
Gulf of Oman
Persian Gulf
Red Sea
Gulf of Aden
Mediterranean Sea
Gulf of Guinea

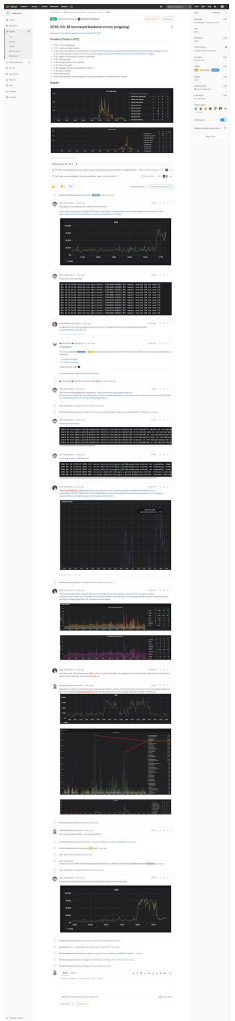


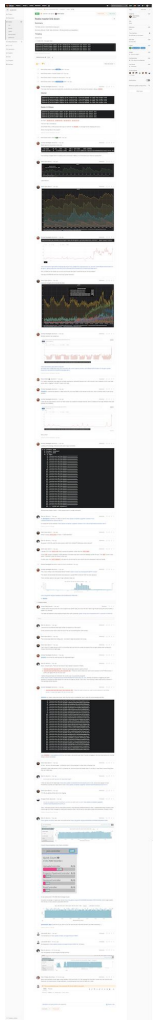


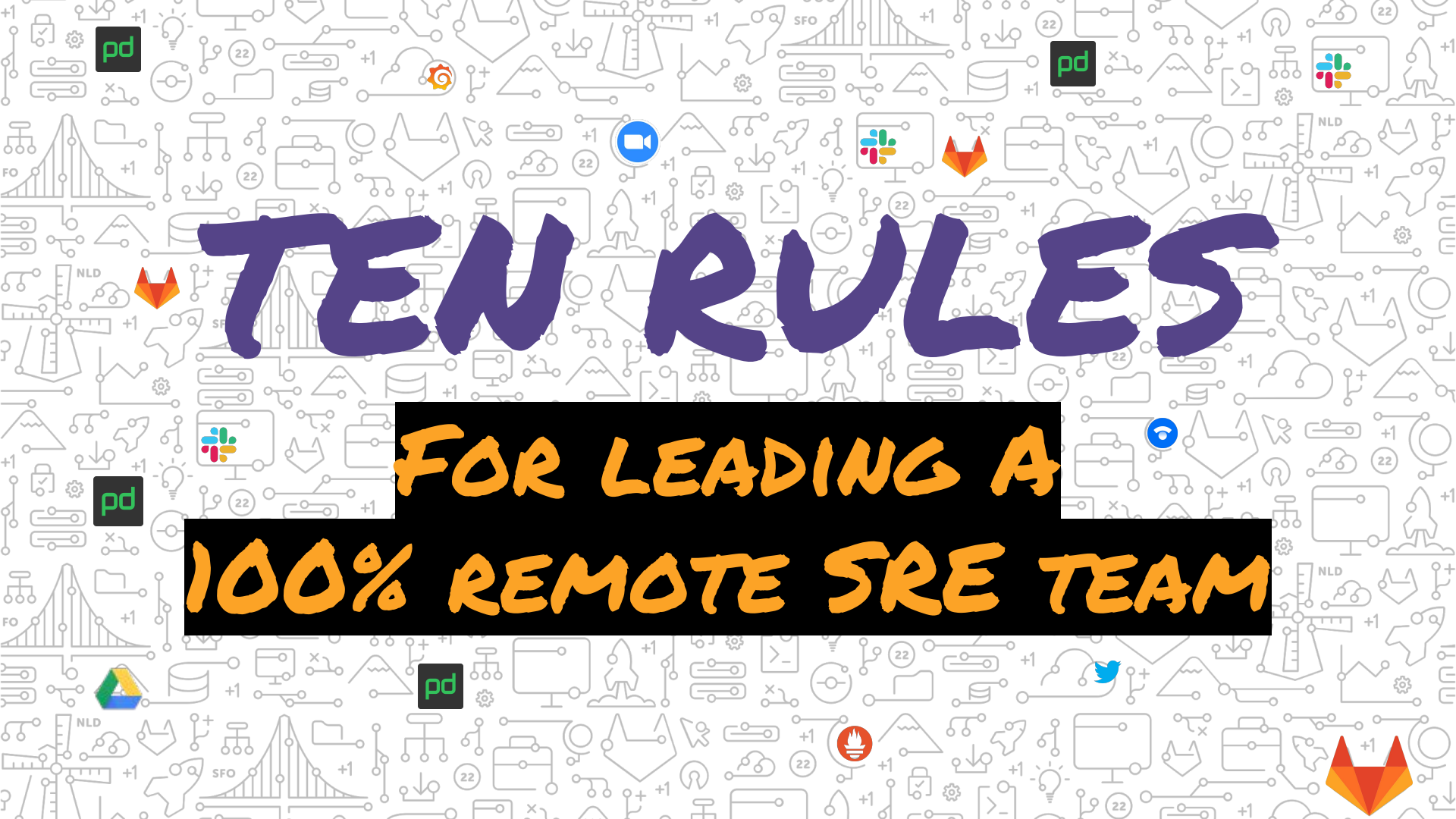





Correct offending due_date for a single milestone record
UPDATE milestones SET due_date = '9999-12-31' WHERE id=563429
Production:
Staging:





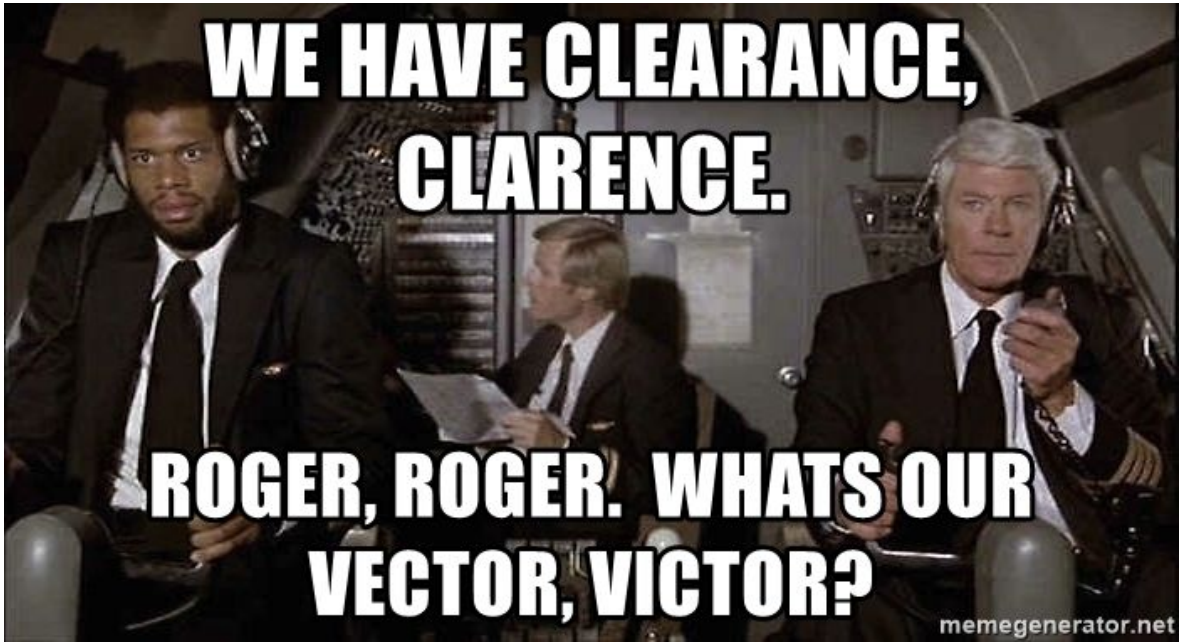

TEN RULES
FOR LEADING A
100% REMOTE SRE TEAM

#1 Emphasize the value of clear and concise writing skills

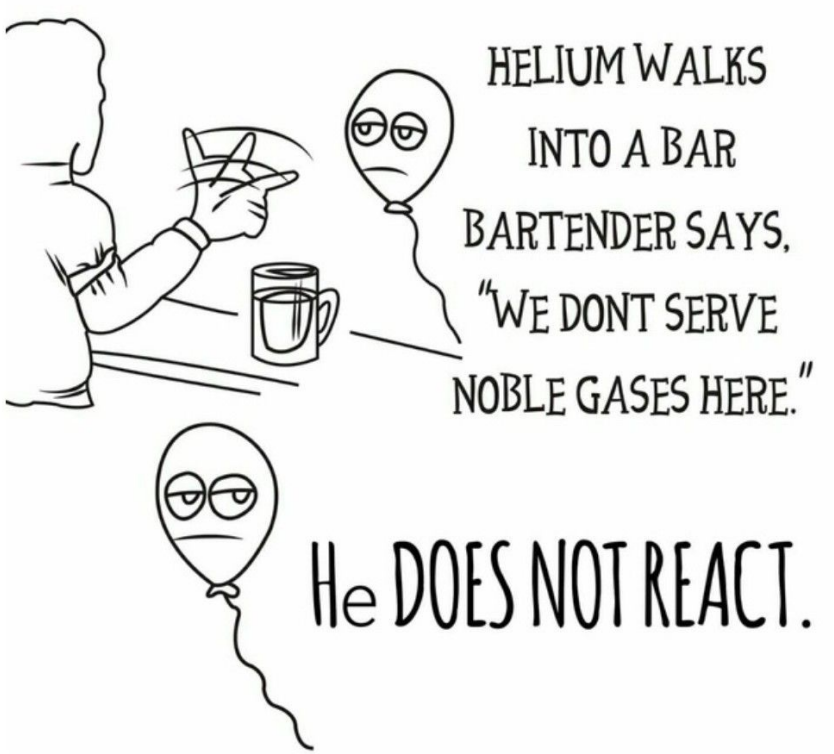


buttersafe.com

#2 ASK FOR EXPLICIT ACKNOWLEDGEMENT



#3 Give feedback on all the things you read



☝️ 👀 👍 💯 ✋ ✔️

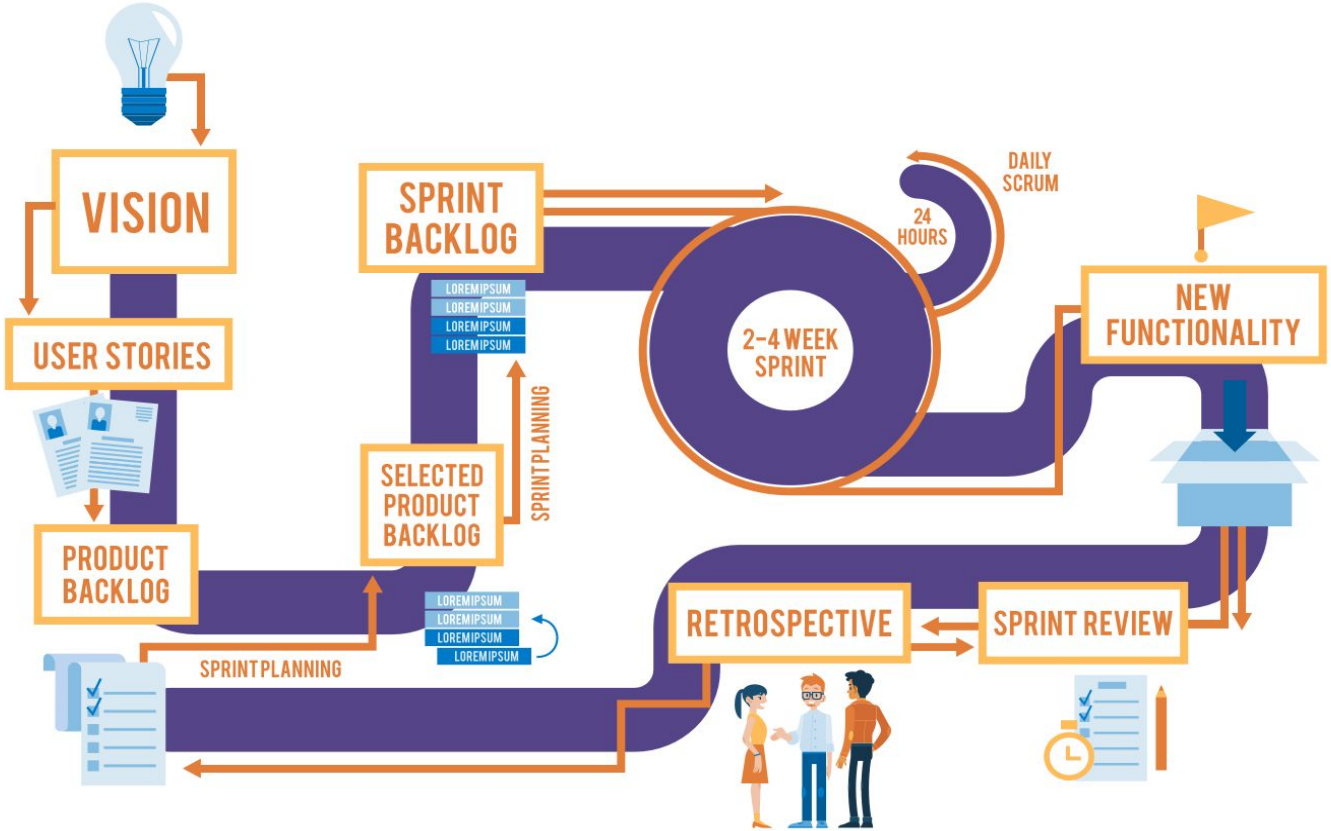
#4 Set clear guidelines for Slack channels usage



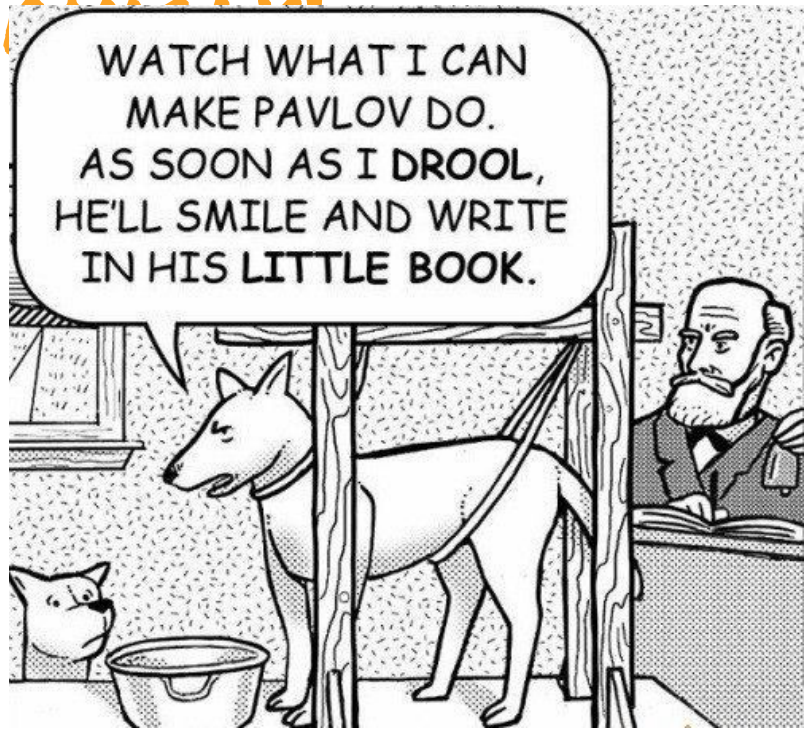
#5 Simplify and consolidate, constantly



#6 Go all-in with agile workflows



#7 Stay consistent and (Bo

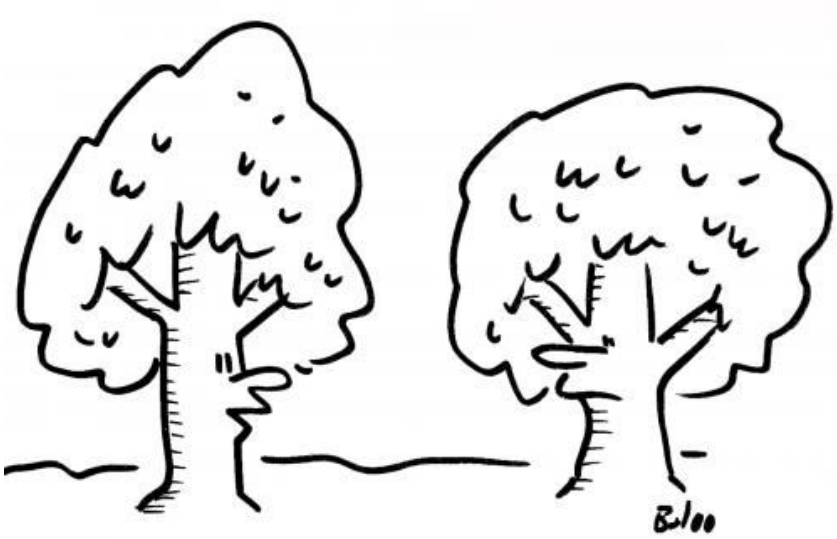


PREDICTABLE

#8 Never leave an on-call engineer online alone



#9 Be even more human than you already are



"If you were a human being, what kind of human being would you be?"

#10 Always keep a scheduled one-on-one meeting



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SREcon Americas 2019

Lightning Talks

The Operational Maturity Model

Reactive to Proactive

Matthew 'Forni' Fornaciari
Gremlin, CTO
matt@gremlin.com
@callmeforni



“Operationally mature…
is understanding the
ramifications of incidents”

Joey Parsons
Head of Platform & Operations, Flipboard



*“Operationally mature…
is understanding the
ramifications of incidents”*

Joey Parsons
Head of Platform & Operations, Flipboard



Reactive

Proactive

*“Operational Maturity … is
often measured by the
effectiveness of our response
during a crisis.”*

Sean Jacobs
Infrastructure & Datacenter Operations Lead, Splunk

"Operationally mature… is understanding the ramifications of incidents"

Joey Parsons
Head of Platform & Operations, Flipboard

"Operational Maturity means being part of a test-driven environment, where high-severity incidents … are very uncommon, and measured"

Tim Armandpour
Vice President of Engineering, Pagerduty

Reactive

Proactive

"Operational Maturity ... is often measured by the effectiveness of our response during a crisis."

Sean Jacobs
Infrastructure & Datacenter Operations Lead, Splunk

Table Stakes

L0: IMPORTANCE OF RELIABILITY

01 **Does your company measure downtime?**

02 **Can you quantify damage to the business?**

03 **Does someone own that number?**



Reactive: Firefighting

L1: OBSERVABILITY

L1.1: Logging







Reactive: Firefighting

L1: OBSERVABILITY

L1.1: Logging → L1.2: Monitoring













Reactive: Firefighting

L1: OBSERVABILITY

L1.1: Logging → L1.2: Monitoring → L1.3: Alerting



















Reactive: Firefighting

L2: INCIDENT MANAGEMENT

L2.1: Engagement

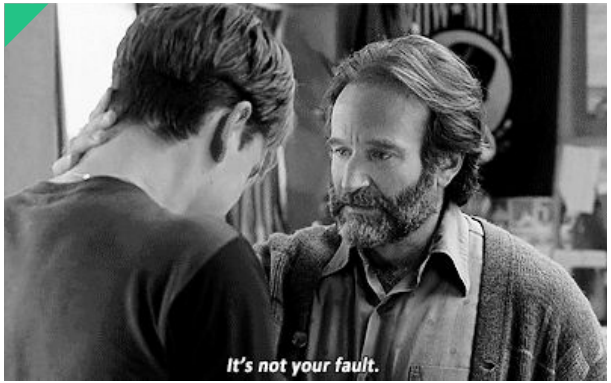


Reactive: Firefighting

L2: INCIDENT MANAGEMENT

L2.1: Engagement → L2.2: Blameless Retro



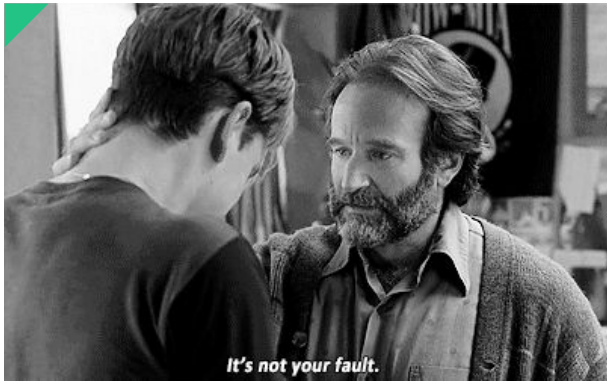


Reactive: Firefighting

L2: INCIDENT MANAGEMENT

L2.1: Engagement → L2.2: Blameless Retro → L2.3: Follow Up







Proactive: Chaos Engineering

L3: INFRASTRUCTURE FAILURES

L3.1

Local Failures

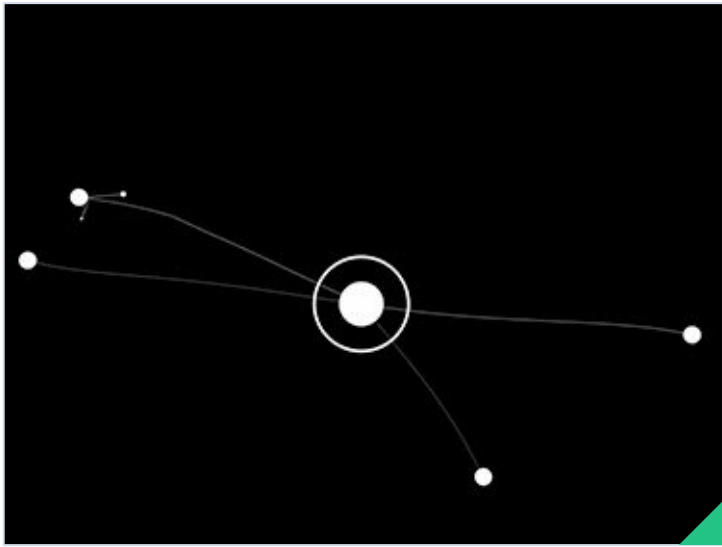


Proactive: Chaos Engineering

L3: INFRASTRUCTURE FAILURES

L3.2

External Failures



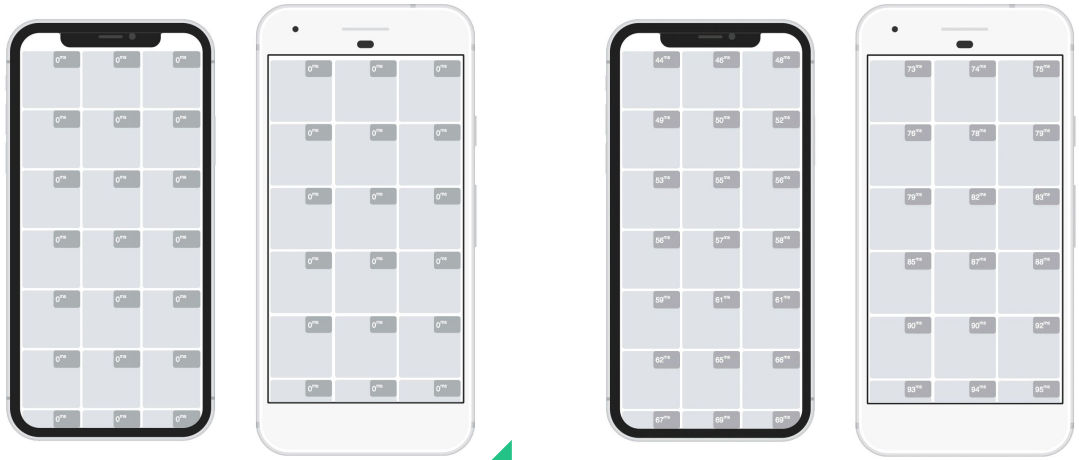
Proactive: Chaos Engineering

L4: APPLICATION FAILURES



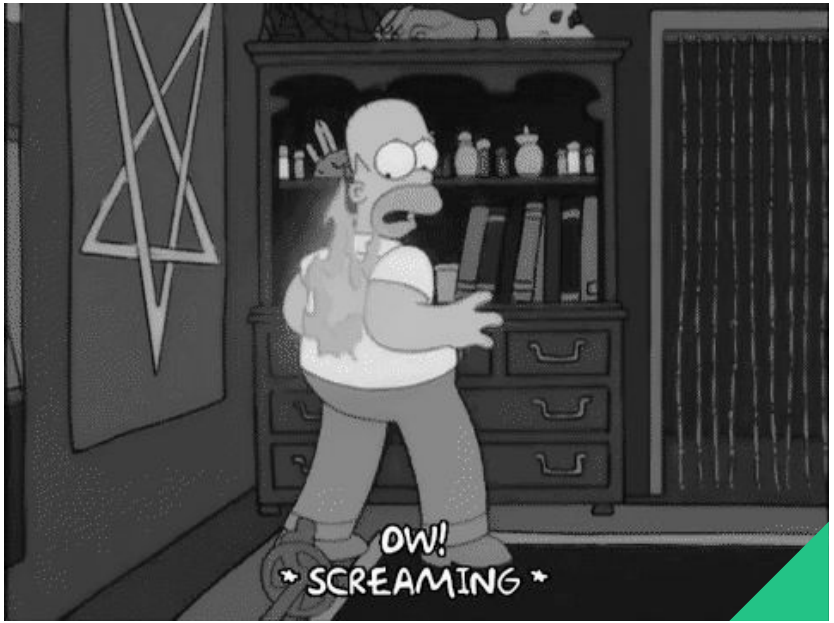
Proactive: Chaos Engineering

L4: APPLICATION FAILURES



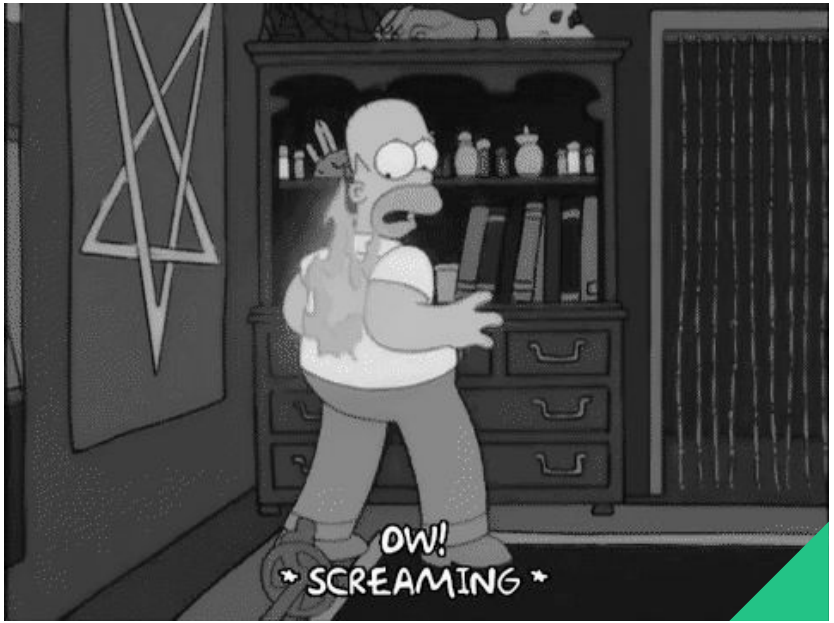
Proactive +: Chaos Engineering

L5: CONTINUOUS CHAOS



Proactive +: Chaos Engineering

L5: CONTINUOUS CHAOS





Reactive

Proactive

- Lack of Confidence
- Pager Pain / Attrition
- Fire Fighting





Reactive

Proactive

- Lack of Confidence
- Pager Pain / Attrition
- Fire Fighting

- Confidence in Systems
- Predictable On-Call
- Regular Fire Drills



Join the Chaos Community!

gremlin.com/slack

SREcon Americas 2019

Lightning Talks



”Monitoring and Alerting, Ain’t Nobody got time for that”

How USDS bootstrapped basic SRE best practices a week before launch at FEMA

David Holmes // U.S. DIGITAL SERVICE // March 2019



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”Monitoring and Alerting, Ain’t Nobody got time for that”

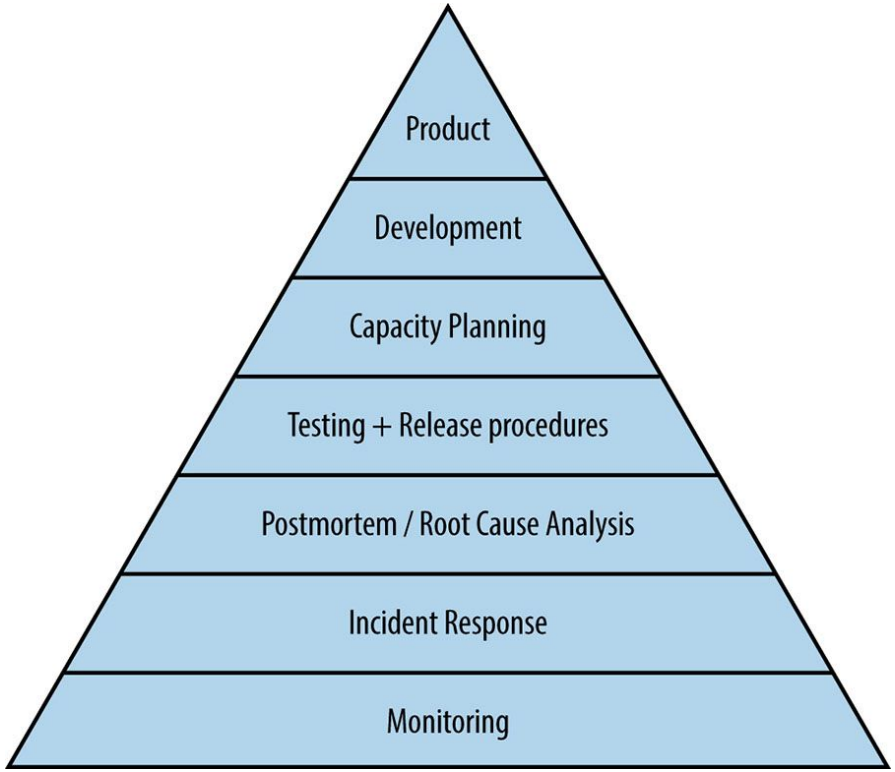
How USDS bootstrapped basic SRE best practices a week before launch at FEMA

David Holmes // U.S. DIGITAL SERVICE // March 2019

Monitoring, even basic monitoring, could be the difference between a successful launch and a failed one

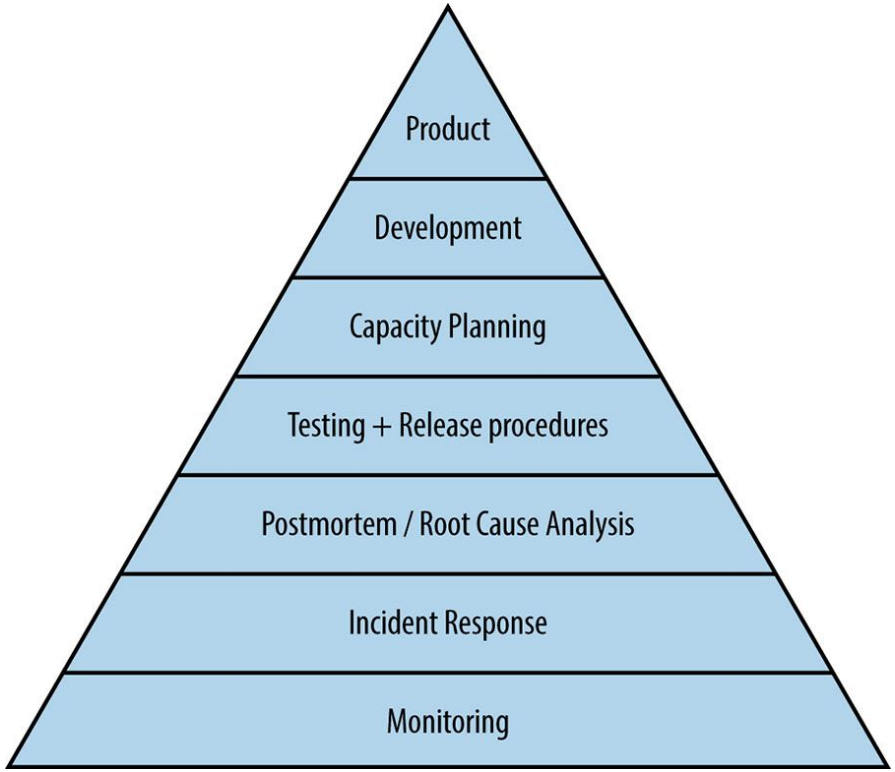

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Service Reliability Hierarchy – Google SRE book

–Mikey Dickerson, ***former administrator of USDS***



Service Reliability Hierarchy – Google SRE book

–Mikey Dickerson, ***former administrator of USDS***

OUR VALUES



Hire and empower great people.



Go where the work is.



Find the truth.
Tell the truth.



Create momentum.



Optimize for results, not optics.



Design with users, Not for them.

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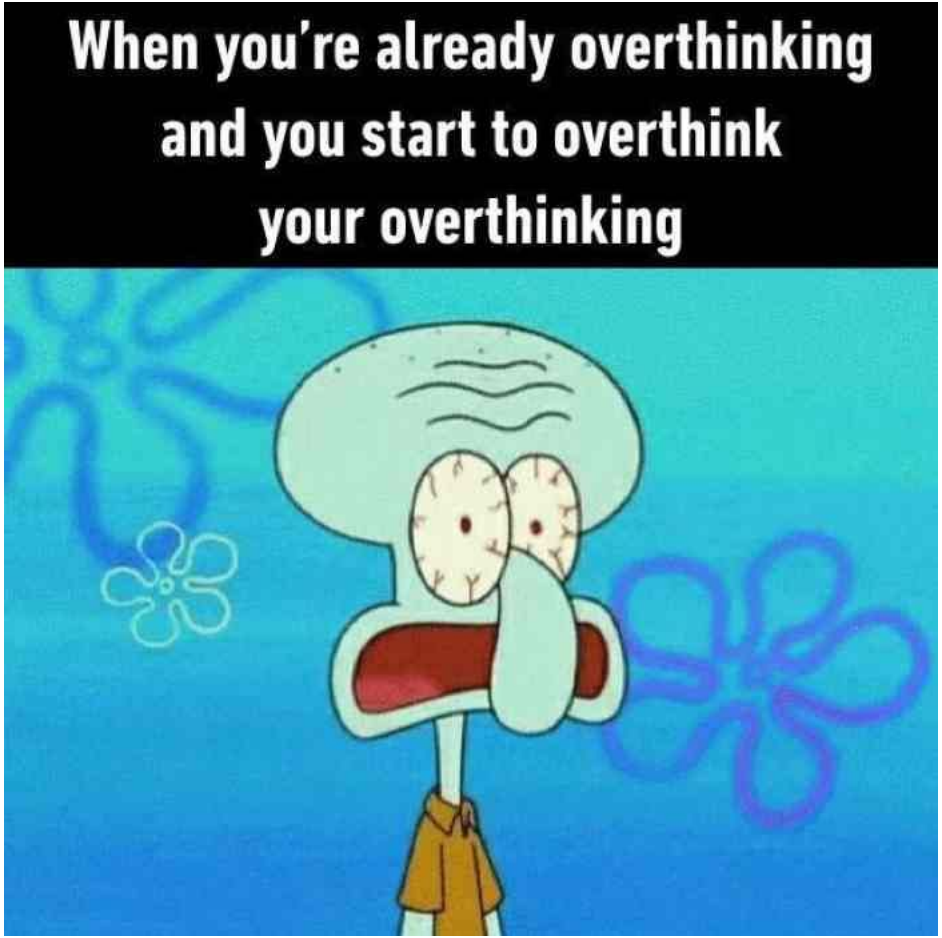


Optimize for results, not optics.

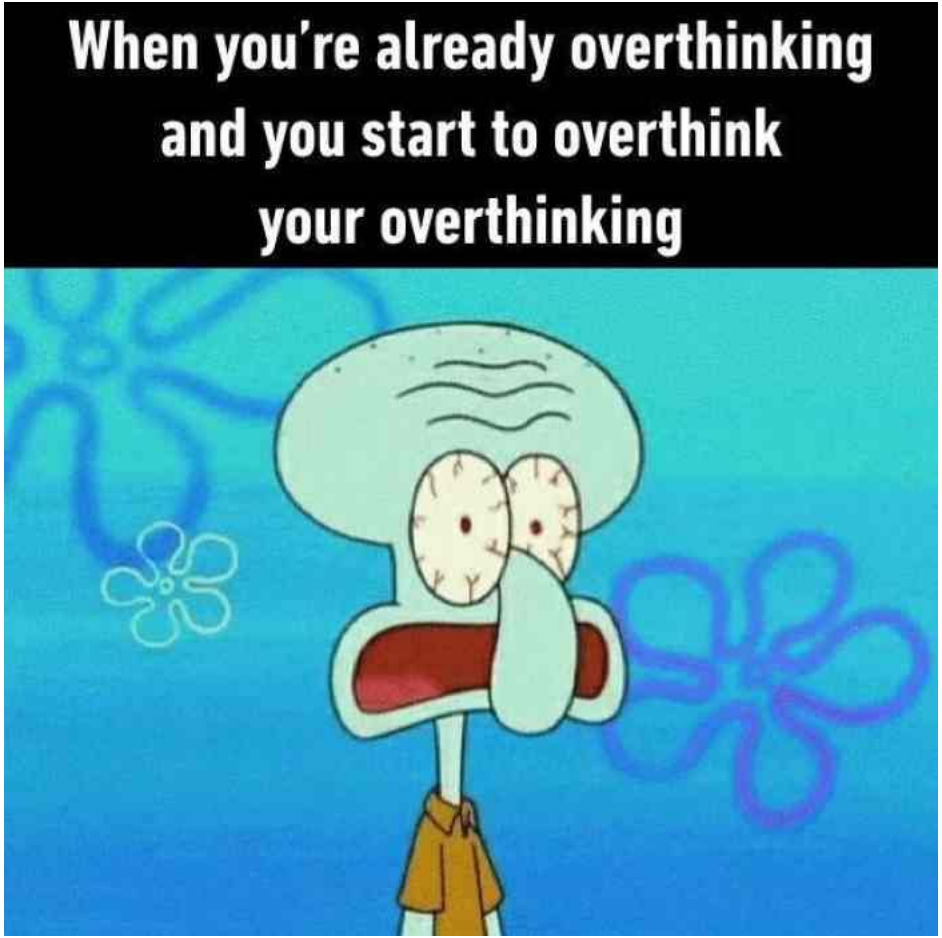


Design with users, Not for them.

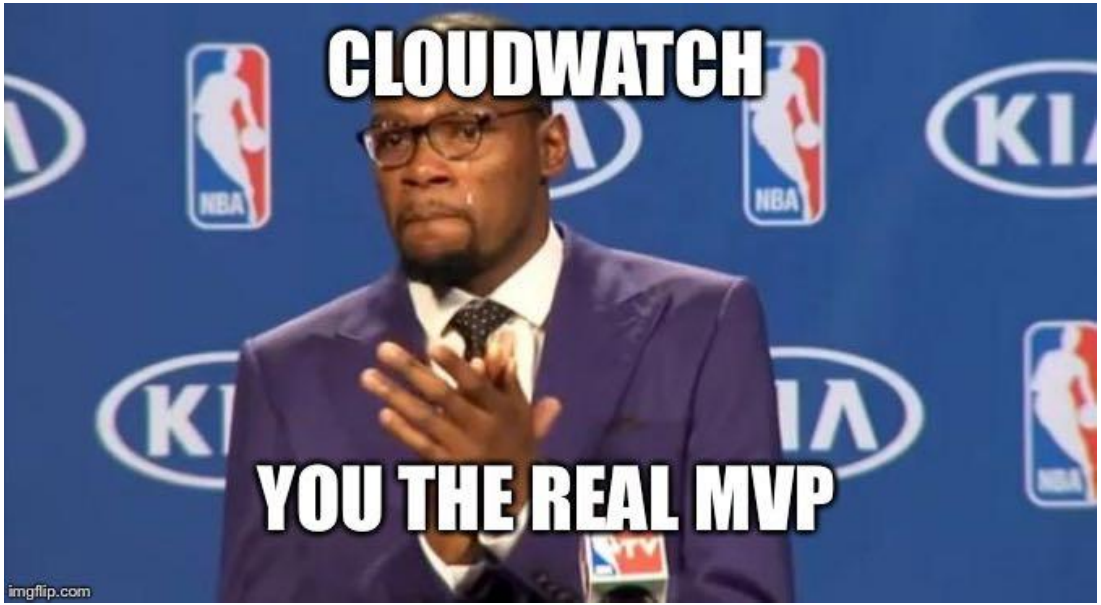
Don’t overthink it



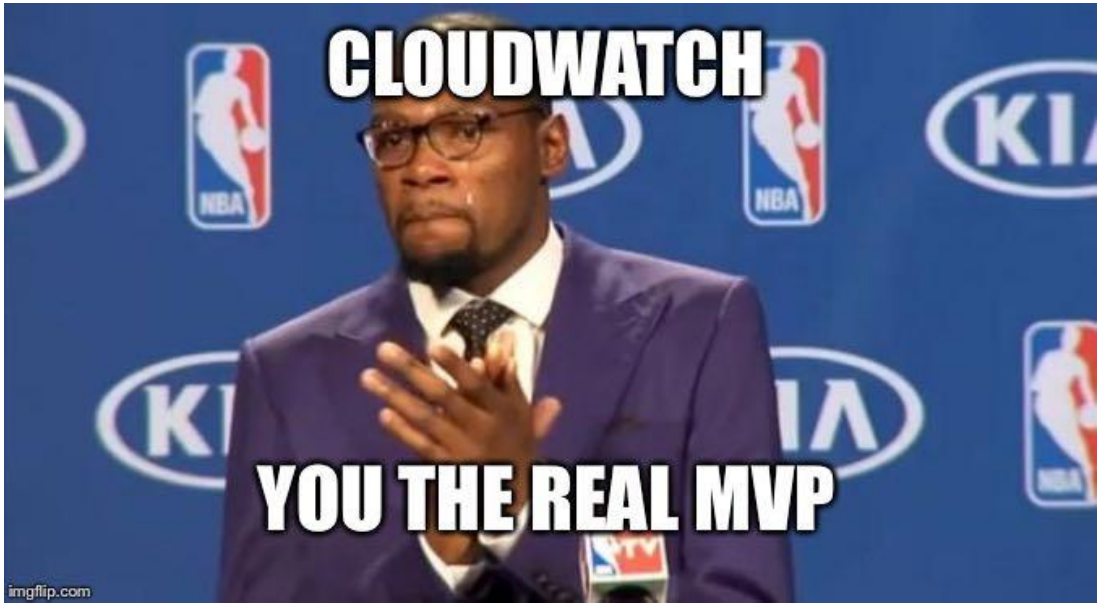
Don’t overthink it



Use what you already have available to you



Use what you already have available to you



Monitoring, even basic monitoring, could be the difference between a successful launch and a failed one

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Thank you!!!