

**DEVOPS FOR DEVELOPERS
... OR MAYBE AGAINST THEM?!**







r/devops

· Posted by u/ThePoetWalsh57 38 minutes ago

Just got my first job in devops. What exactly is devops?

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

BARUCH SADOGURSKY

CHIEF STICKER OFFICER

(ALSO 🎩 OF DEVELOPER ADVOCACY)



JBARUCH@JFROG.COM

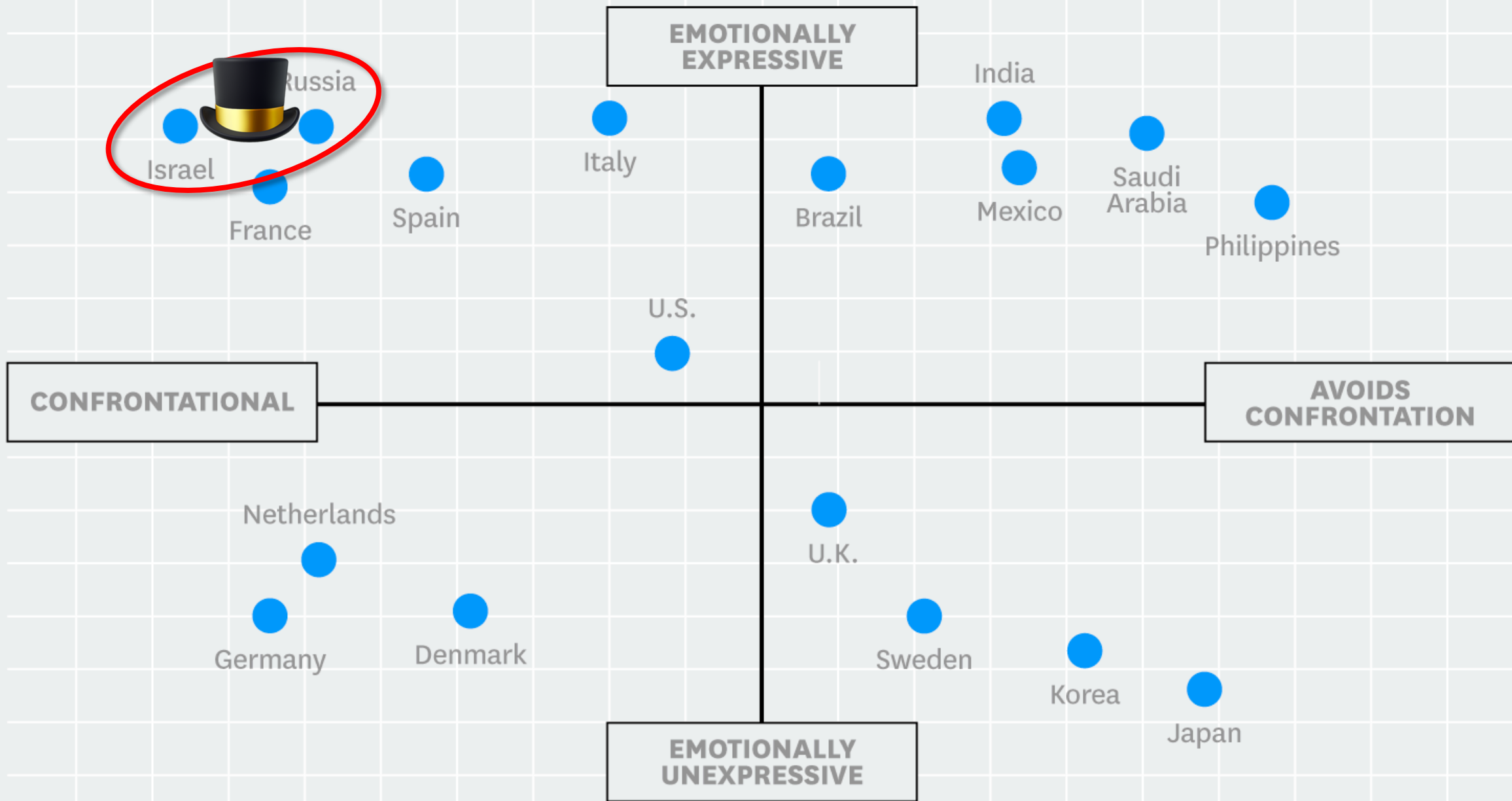


@JBARUCH



+1(408)890-9281





SHOWNOTES

 <http://jfrog.com/shownotes>

 Slides

 Video

 Links

 Comments, Ratings

 Raffle



Baruch 🇮🇱 **Sadogursky**

Developer Advocacy at JFrog



AlphaCSP

6 yrs 1 mo

Training Division Manager

Jan 2007 – Oct 2010 · 3 yrs 10 mos

- Development and delivery of most of AlphaCSP courses on different Java-related topics and in different levels;

Among the customers: IDF, Cisco, IDI direct insurance, Rafael, PayPal, Opal, BMC, Malam, Checkpoint, HP Software and others.... [See more](#)

Consultant & Architect

Jan 2007 – Oct 2010 · 3 yrs 10 mos

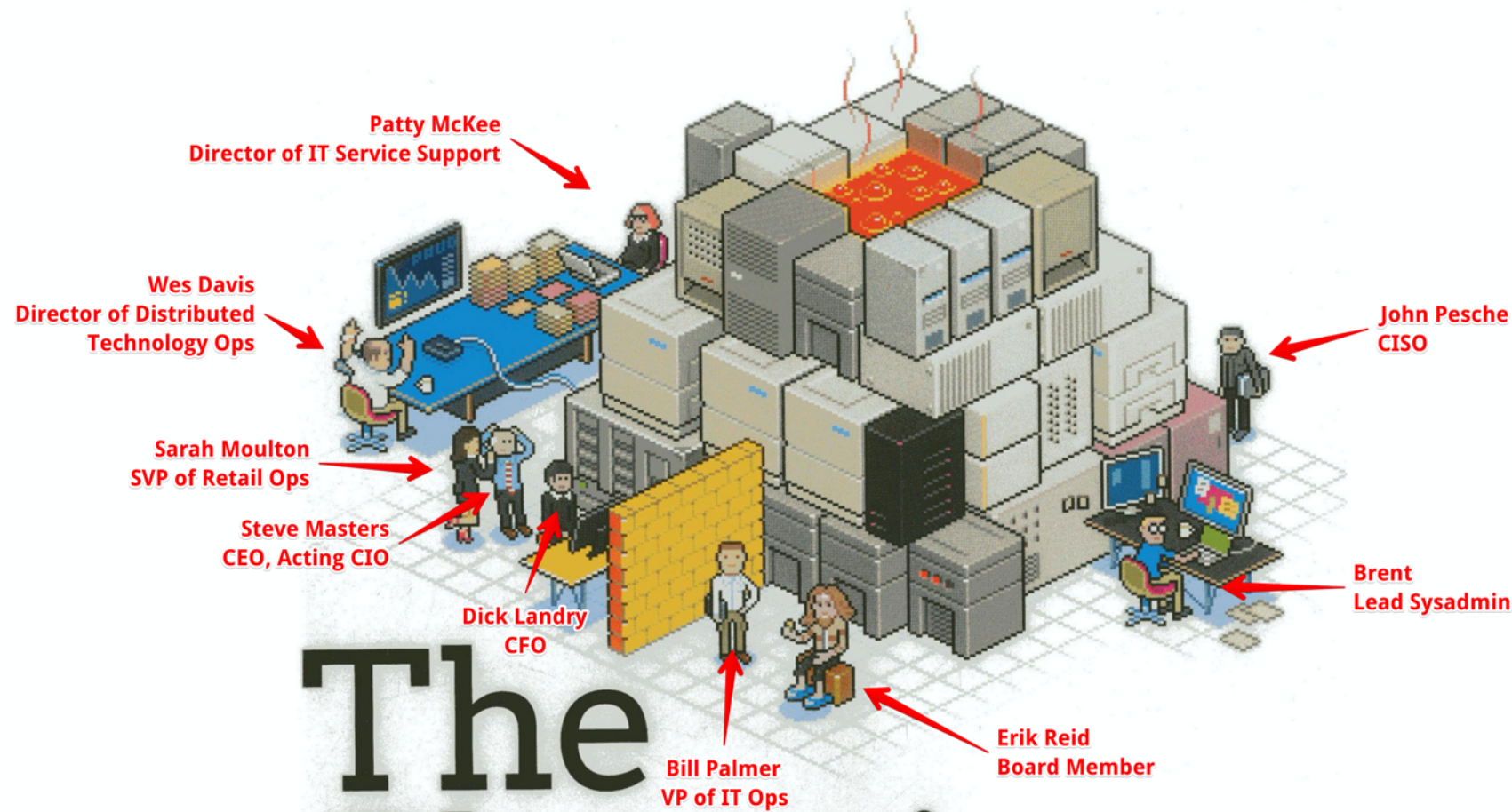
Consulting, building architectures and design, mentoring, and developing in various Java-related projects on the topics, described in Specialties section above;

Among the customers: BMC, Logia, IDF, Starhome (Comverse), Malam, Cisco, IDI, IDIT, Isracard, Virtual Tweens, Amobee, SolarEdge, Checkpoint, Cadence, Evolgen, ExLibris, Retalix, ... [See more](#)

Senior Developer

Oct 2004 – Jan 2007 · 2 yrs 4 mos

Working on various projects in BMC Software Israel



The Phoenix Project

A man wearing a blue beanie and a grey shirt is looking at a wall. The wall has several framed pictures, including a landscape and a portrait. The text "NOT A SINGLE DEVELOPER!!!" is overlaid on the image in a large, white, bold font.

NOT A SINGLE DEVELOPER!!!

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

The DevOps Handbook

HOW TO CREATE WORLD-CLASS
AGILITY, RELIABILITY, & SECURITY
IN TECHNOLOGY ORGANIZATIONS



GENE KIM,
JEZ HUMBLE,
PATRICK DEBOIS,
& JOHN WILLIS


FOREWORD BY JOHN ALLSPAUGH

@jbaruch


#DevOps


cjug

<https://jfrog.com/shownotes>


**Patrick Debois**
Co-founder Zender


2012 – 2013 · 1 yr

**Project Manager**
Synergics
2010 · less than a year


**Multimedia Researcher**
VRT
Jan 2008 – Dec 2009 · 2 yrs
Research on Multimedia Search

* In the past two year the VRT has been feeding a new media archive system with content it is producing. The purpose of this project is to make this data more 'searchable'.


**Researcher**
VRT Medialab
2008 – 2009 · 1 yr

**Technical Coordinator**
Notary Federation Brussels
2007 · less than a year


* Credoc technically runs the portal and mail environment used by every notary (more than 8000). As Trust is very important they have high security standards to implement. Audit which they successfully past, the next step was to improve the reliability of the environment even more by implementing an Disaster Recovery Solution.... See more

**System Architect/Technical Consultant**
Ministerie Van Financiën
2005 – 2006 · 1 yr


Identity and Access Management
* With an internal user population of more then 35.000 users, the organization is looking to automate the identity and access management of their IT environment.
... See more

**System Architect/Technical Consultant/Technical Project Manager (swITech)**
swITech
Mar 2004 – Jan 2005 · 11 mos


Intranet portal project
* With the ultimate goal to create a web-based desktop, an intranet portal was developed based upon Sun ONE Portal and Citrix.
* Via portal technology it became possible to work in the same personalized environment.


**System Architect/Technical Project Manager (ACA-IT)**
Eurocontrol
Jun 2004 – Oct 2004 · 5 mos

Internet Portal Project
* For maintenance reasons the One Sky Extranet Stakeholders Portal infrastructure was upgraded.
* While doing the upgrade, a complete high availability design was done for further development.


**Jez Humble**
Cloud advocate at Google Cloud Platform, Lecturer at UC Berkeley.

Experience


**Cloud Advocate**
Google
Dec 2018 – Present · 11 mos
San Francisco, California

**Lecturer**
UC Berkeley
Jul 2013 – Present · 6 yrs 4 mos
Berkeley, California


I teach two 3-unit graduate classes at the School of Information. One class is on product management. The other is an experiential class in which students learn OO design in Java through solving problems.


**Founder and CTO**
DevOps Research and Assessment LLC
Dec 2015 – Dec 2018 · 3 yrs 1 mo
Berkeley, California


Co-founder of DORA and CTO up to its acquisition by Google


**Deputy Director of Delivery Architecture and Infrastructure Services**
GSA
Jan 2016 – Jan 2017 · 1 yr 1 mo
San Francisco


In this role I was responsible for managing production infrastructure for all services operated by the 18F (now Technology Transformation Services) team, part of the Government's General Services Administration. I also worked with teams at various agencies to help them adopt good practice designing, managing, and delivering services.

**Vice President**
Chef (formerly Opscode)
Aug 2014 – Sep 2015 · 1 yr 2 mos


**John Willis**
Founder at Botchagalupe Technologies

**VP of DevOps and Digital Practices**
SJ Technologies
Jul 2017 – Dec 2018 · 1 yr 6 mos
Greater Atlanta Area

**Director of Ecosystem Development**
Docker, Inc
Mar 2015 – Oct 2017 · 2 yrs 8 mos
Greater Atlanta Area

**Founder and VP of Customer Enablement**
SocketPlane
Oct 2014 – Mar 2015 · 6 mos
Greater Atlanta Area


Socketplane was sold to Docker.

**Executive in Residence**
Pacific Crest Securities
Sep 2014 – Mar 2015 · 7 mos
Portland, Oregon Area


Currently working with the Mosaic group identify emerging technologies.

VP of Customer Enablement
Stateless Networks
Jan 2014 – Sep 2014 · 9 mos
Greater Atlanta Area


We are building the next generation of network automation and monitoring, bringing DevOps goodness to SDN and physical networking environments. We are hiring looking for network experienced people who want to join an exciting new startup.


**Director of DevOps Practices**
enStratus/Dell
Nov 2011 – Dec 2013 · 2 yrs 2 mos
Greater Atlanta Area

Cloud Management startup that was purchased by Dell.

**VP of Solutions**
DTO Solutions
May 2011 – Nov 2011 · 7 mos

We do DevOps and SDLC as Infrastructure.

**VP of Services**
Chef (formerly Opscode)
Jan 2010 – May 2011 · 1 yr 5 mos

**Cloud Evangelist**
Canonical Ltd.
Jan 2009 – Jan 2010 · 1 yr 1 mo

Introduced Ubuntu Enterprise Cloud (UEC). UEC was an OEM of Eucalyptus.



About 82,600,000 results (0.44 seconds)

Videos



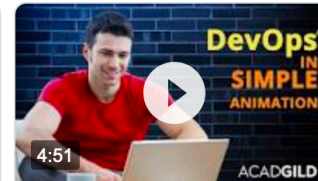
[What is DevOps? - In Simple English](#)

Rackspace
YouTube - Dec 12, 2013



[What is DevOps? | Introduction To DevOps | Devops For ...](#)

Simplilearn
YouTube - Nov 13, 2018



[What is DevOps? | DevOps Introduction in Simple Animation ...](#)

ACADGILD
YouTube - Feb 20, 2017



People also ask

What is meant by DevOps?



What is the role of DevOps?



What is DevOps and how it works?



What DevOps basics?



[Feedback](#)

[newrelic.com](#) › [devops](#) › [what-is-devops](#) ▼

[What Is DevOps - Explained | New Relic](#)

Even as **DevOps** adoption continues to accelerate in both large enterprises and web-native organizations, confusion lingers about what exactly the term means.

[aws.amazon.com](#) › [devops](#) › [what-is-devops](#) ▼

What is DevOps? - Amazon Web Services (AWS)

DevOps is the combination of cultural philosophies, practices, and tools that increases an organization's ability to deliver applications and services at high velocity: evolving and improving products at a faster pace than organizations using traditional software development and infrastructure management processes.

[Continuous Delivery](#) · [Microservices](#) · [Infrastructure as Code](#)

[resources.collab.net](#) › [devops-101](#) › [what-is-devops](#) ▼

What is DevOps? The Ultimate Guide to DevOps

What is DevOps? Learn **DevOps** history and the methods companies use to evolve from continuous integration to continuous delivery and continuous ...

[theagileadmin.com](#) › [what-is-devops](#) ▼

What Is DevOps? | the agile admin

DevOps is a term for a group of concepts that, while not all new, have catalyzed into a movement and are rapidly spreading throughout the technical community.

[en.wikipedia.org](#) › [wiki](#) › [DevOps](#) ▼

DevOps - Wikipedia

DevOps is a set of practices that combines software development (Dev) and information-technology operations (Ops) which aims to shorten the systems development life cycle and provide continuous delivery with high software quality.

[www.atlassian.com](#) › [devops](#) ▼

What is DevOps? | Atlassian

DevOps is a set of practices that automates the processes between software development and IT teams, in order that they can build, test, and release software faster and more reliably. The concept of **DevOps** is founded on building a culture of collaboration between teams that historically functioned in relative siloes.

[azure.microsoft.com](#) › [Home](#) › [Overview](#) ▼

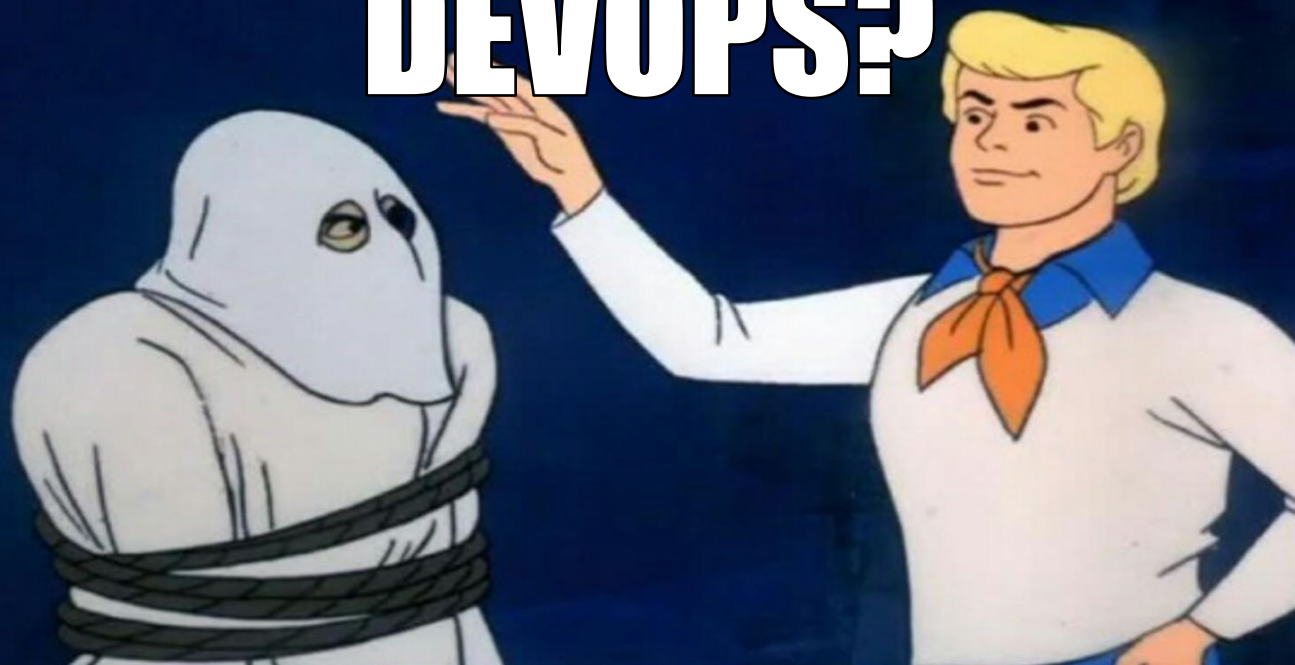
What is DevOps? DevOps Explained | Microsoft Azure

Learn the definition of **DevOps** and see how **DevOps** practices and roles improve automation and collaboration to create better products for customers.

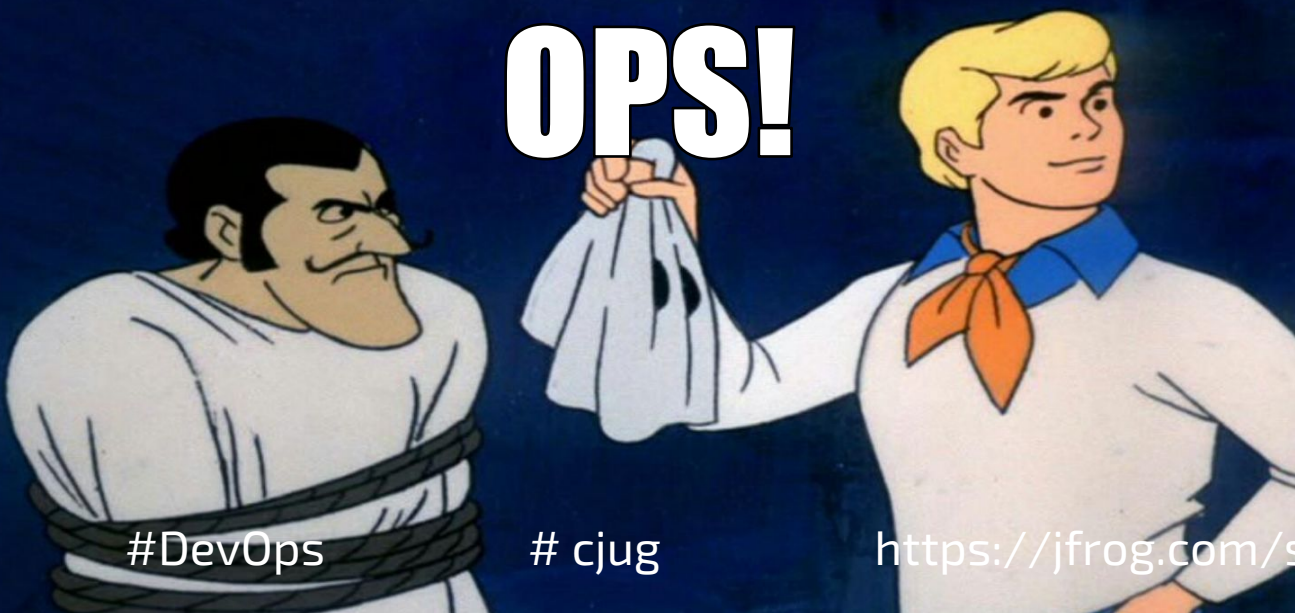
[logz.io](#) › [Guides](#) › [Learn](#) ▼

[What is DevOps? The Beginner's Guide from Logz.io](#)

DEVOPS?



OPS!



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

A man wearing a white surgical cap and a green surgical mask is shown from the chest up. He is looking off to the side with a questioning or confused expression. The background is a blurred hospital or clinical setting.

BUT WHY?

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

DevOps

System Administration

Career Transitions

+2



How do I switch my job from system admin to devops?



Answer



Follow · 11



Request



4 Answers



Disha Rathod, DevOps Online Trainer (2013-present)

Answered Sep 14, 2017



Originally Answered: As a Linux system administrator, how do I shift my career to DevOps?

Hi,

Being a Linux administrator will help you to easily get started with DevOps because it starts with learning Linux fundamentals, DevOps also includes cloud computing concepts like AWS. More importantly DevOps is all about tools, it comes with hundreds of tools. Gits, Chef, Maven, Jenkins, Puppet, Docker are modern and most popular DevOps tools.

So in order to move into DevOps industries you should have prominent knowledge following concepts

1. Linux Fundamental; Shell Scripting
2. Cloud Computing (AWS)
3. DevOps Fundamentals
4. Software Development Life Cycle
5. Continuous Integration, Deployment, and Delivery.
6. DevOps Tools: Gits, Chef, Maven, Jenkins, Puppet, Docker etc.

Systems Administrator Salaries

25,439 Salaries Updated Feb 26, 2020

Industries

▼

Company Sizes

▼

Years of Experience

▼

Average Base Pay

\$64,892 /yr



Additional Cash Compensation (?)

Average \$3,807

Range \$932 - \$12,002

@jbaruch #DevOps

How much does a Systems Administrator make?
The national average salary for a Systems Administrator is \$64,892 in United States. Filter by location to... [More](#)
cjug <https://jfrog.com/shownotes>

Devops Engineer Salaries

2,130 Salaries Updated Feb 26, 2020

Industries ▼

Company Sizes ▼

Years of Experience ▼

Average Base Pay

\$99,604 /yr



Additional Cash Compensation (?)

Average \$8,714

Range \$2,236 - \$17,548

How much does a Devops Engineer make?
The national average salary for a Devops Engineer is \$99,604 in United States. Filter by location to see... [More](#)

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



devops engineer

United States

Jobs ▼

Sort by ▼

Date Posted ▼

LinkedIn Features ▼

Devops engineer in United States

14,337 results

Job Alert Off



DevOps Engineer Promoted

Apple

Cupertino, CA, US

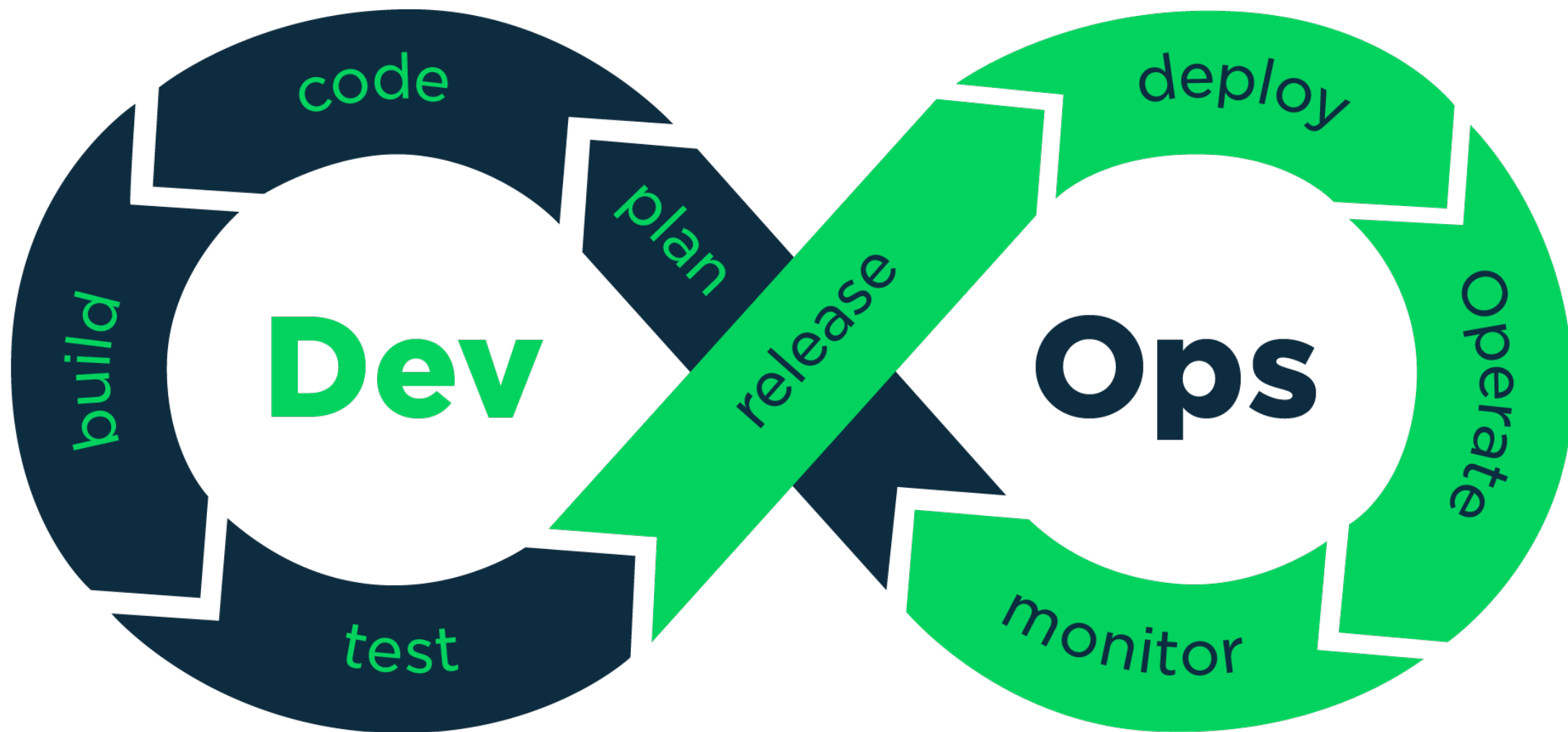
1 week ago

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



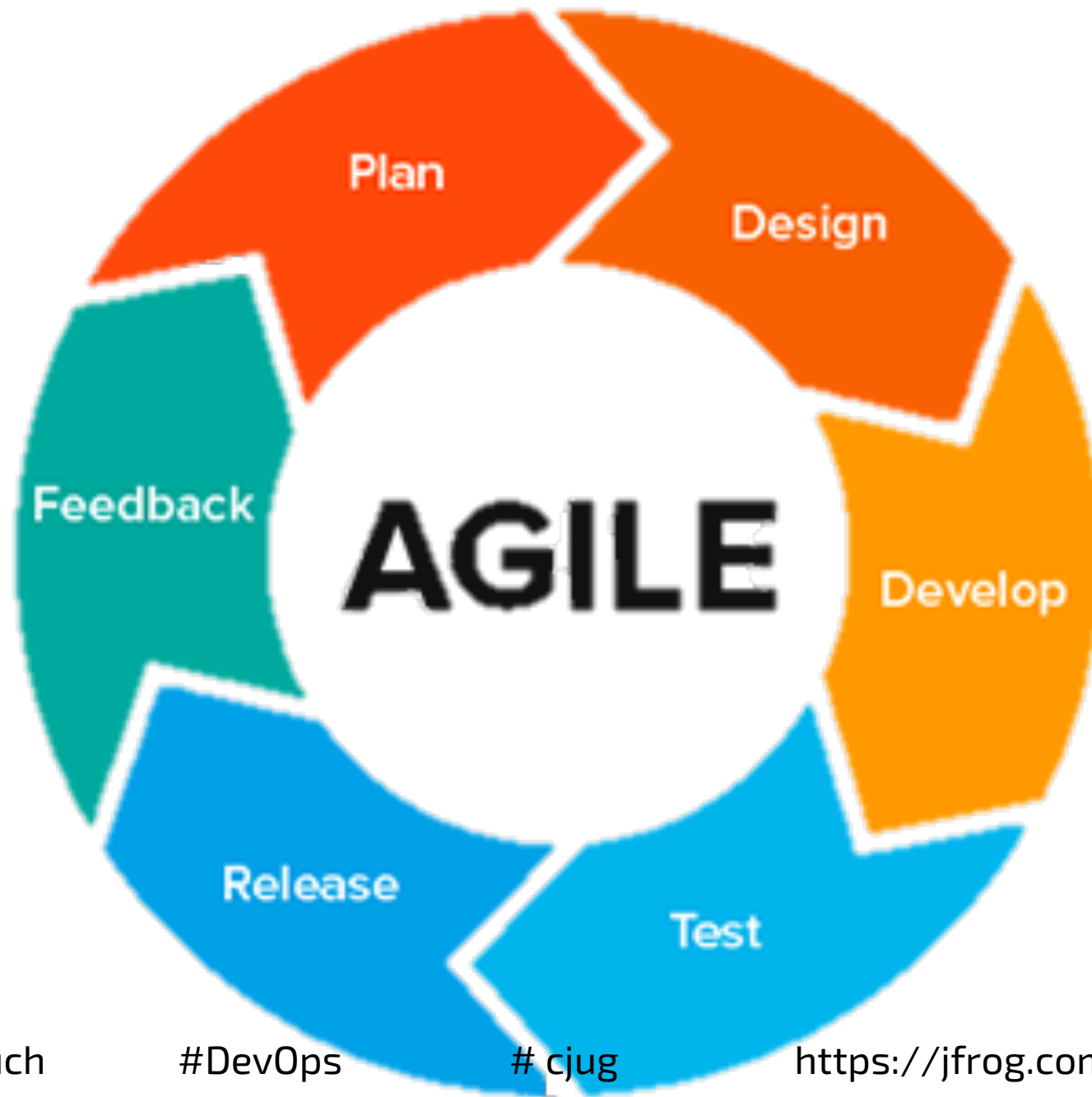


@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

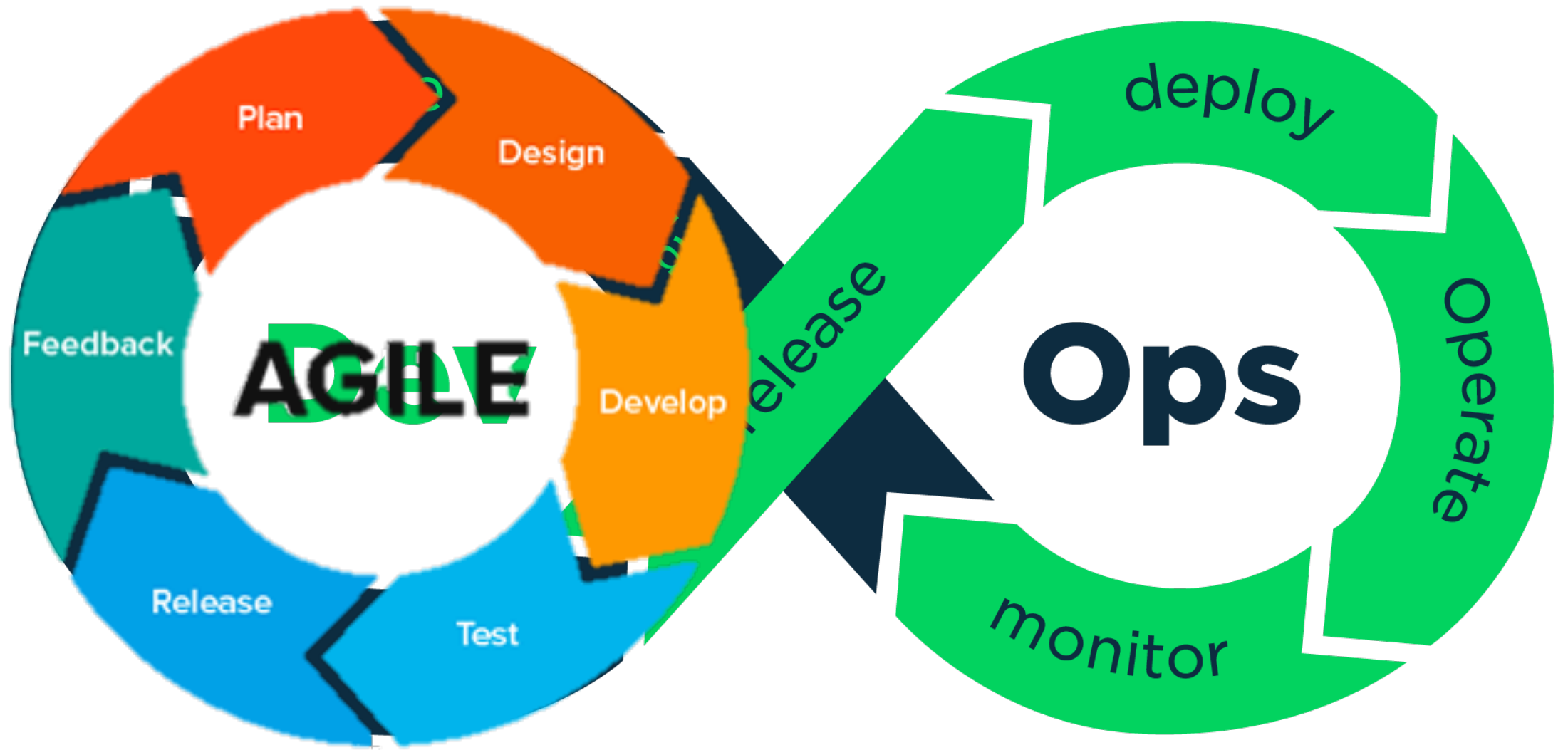


@jbaruch

#DevOps

#cjug

<https://jfrog.com/shownotes>



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

2018

Accelerate: **State of DevOps** Strategies for a New Economy

Presented by



Diamond Sponsor



Gold Sponsors

Deloitte.



Xebia Labs
Enterprise DevOps

pagerduty



redgate



cloud
bees



Datical

sumologic

TRICENTIS



Aspect of Software Delivery Performance

Deployment frequency

For the primary application or service you work on, how often does your organization deploy code?

Lead time for changes

For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code commit to code successfully running in production)?

Time to restore service

For the primary application or service you work on, how long does it generally take to restore service when a service incident occurs (e.g., unplanned outage, service impairment)?

Change failure rate

For the primary application or service you work on, what percentage of changes results either in degraded service or subsequently requires remediation (e.g., leads to service impairment, service outage, requires a hotfix, rollback, fix forward, patch)?

Time Spent		Elite	High	Medium	Low
	NEW WORK	50%	50%	40%	30%
Unplanned work and rework		19.5%	20% ^a	20% ^a	20% ^a
Remediating security issues		5%	5% ^b	5% ^b	10%
Working on defects identified by end users		10%	10% ^c	10% ^c	20%
Customer support work		5%	10%	10%	15%

TYPES OF WORK IN THE PHOENIX PROJECT AND DORA REPORT

Planned Work	Business projects or new features
Internal Projects	Server migrations, software updates and so on
Changes	Driven by feedback on completed work
Unplanned Work	Support escalations and emergency outages



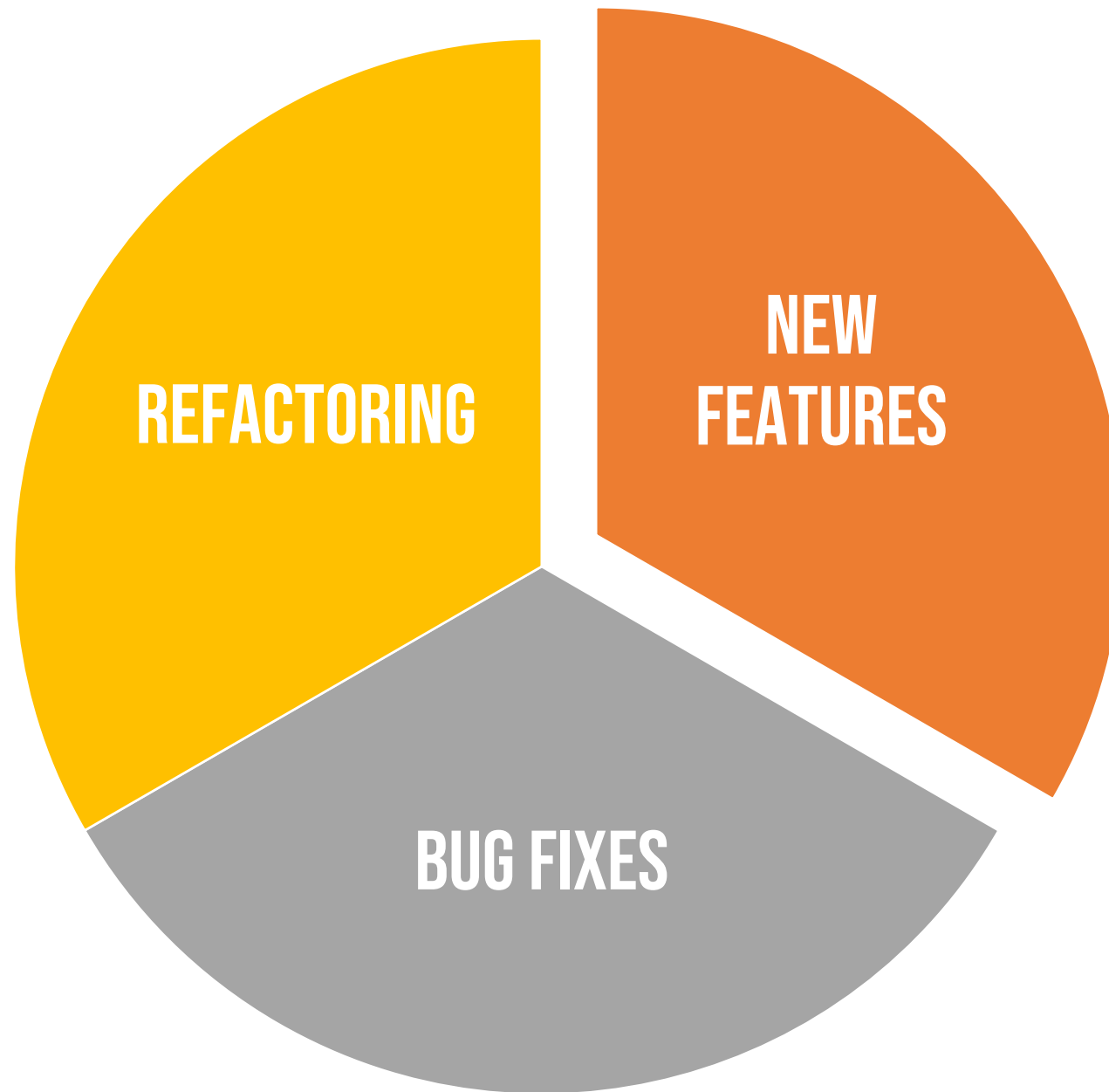
@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

littleanimalgifs

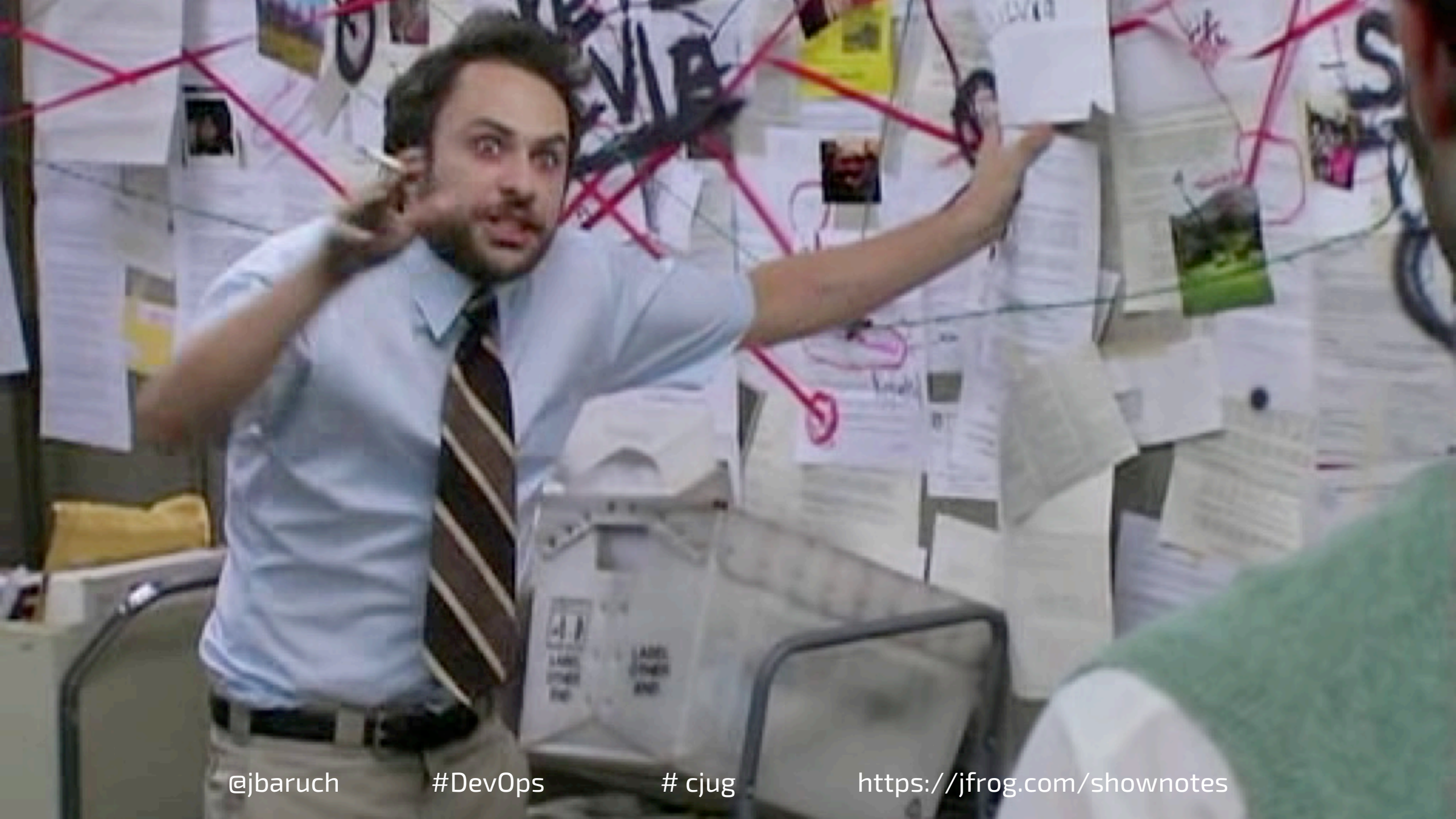


@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

Manifesto for Software Craftsmanship

Raising the bar.

As aspiring Software Craftsmen we are raising the bar of professional software development by practicing it and helping others learn the craft. Through this work we have come to value:

Not only working software,
but also **well-crafted software**

Not only responding to change,
but also **steadily adding value**

Not only individuals and interactions,
but also **a community of professionals**

Not only customer collaboration,
but also **productive partnerships**

That is, in pursuit of the items on the left we have found the items on the right to be indispensable.



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

Becoming a full-stack developer

“Full-stack” refers to the collection of technologies needed to complete your project

“Polyglot” developer

You learn the **essence** and can apply it in **any** language/technology

You still learn most needed parts **deeply** as you gain **experience**

Structuring, design, security, logging, auto testing, simplicity, etc

Also deployment - you don't want to be called during the night

SOFTWARE CRAFTSMAN DEFINITION OF DONE

- ✓ We understand what needs to be done
- ✓ Our code is readable, simple, understandable
- ✓ Our code is easy to deploy
- ✓ Non-functional requirements are met
- ✓ We didn't incur any technical debt (and even reduced some)
- ✓ Our tests pass
- ✓ QA took a look and they are happy
- ✓ Team lead took a look, and they are happy
- ✓ Product owner took a look, and they are happy
- ✓ Client took a look, and they are happy

TODO FAKE NEWS



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



TRACTORMEN, IMPROVE THE QUALITY OF TRACTOR-TRAILER TRACKING!

WayBack Machine


@jbaruch


#DevOps

cjug

<https://jfrog.com/shownotes>

Access your account online
Get a User ID
GO

Returning Users: Log On 
User ID:
Password:
☐ Remember my User ID
[Forgot User ID/Password?](#)
Log On

Security Center Highlights

Chase helps keep you safe and informed.

- ▶ **Report fraud and e-mail scams**
- ▶ Learn how to protect yourself
- ▶ Find out how we protect you
- ▶ Learn more about online fraud
- ▶ Read tips for safe online shopping

Personal Banking

- ▶ Checking
- ▶ Credit Cards
- ▶ Savings
- ▶ CDs
- ▶ Debit Cards
- ▶ Student Center
- ▶ Online Banking & Bill Pay

Business

- ▶ Business Banking
Revenues up to \$10MM
- ▶ Commercial Banking
Revenues over \$10MM
- ▶ Business Credit Cards

Personal Lending

- ▶ Home Equity Loans & Lines of Credit
- ▶ Mortgage
- ▶ Auto/Vehicle Loans
- ▶ Student Loans
- ▶ Personal Loans

Insurance & Investing

- ▶ Insurance
- ▶ Investing
- ▶ Retirement Planning

Tell me about...

- ▶ Chase ExclusivesSM
Special Benefits for checking customers

News & Announcements

- ▶ **Hurricane Impacts:** Customer Updates
- ▶ **AVOIDING FORECLOSURES**
Several options are available if you need help.
- ▶ Planning for college? Visit the **NEW** Chase Student Center.
- ▶ Chase Private Student Loans
A 0.50% interest rate reduction is available with a qualified student loan cosigner.
- ▶ Fair Lending & HMDA Data
- ▶ U.S. Armed Forces Overseas
Please contact us if you need assistance with your Chase accounts.

Planning for college?
Visit the New Chase Student Center.
GO

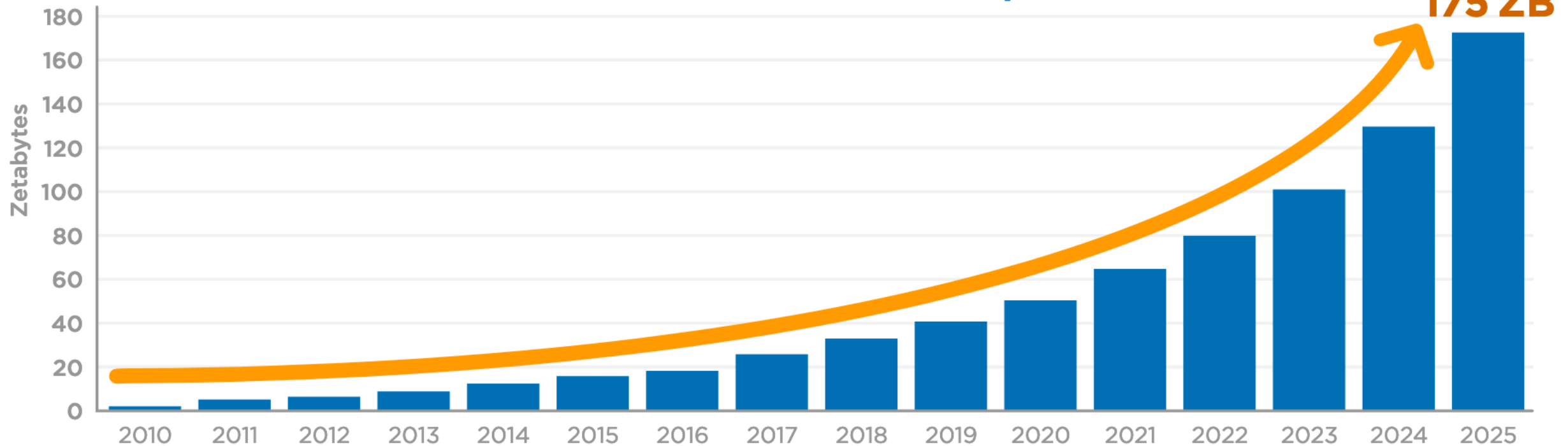
MORTGAGE RATES
ARE STILL AT
HISTORIC LOWS

**12 HOURS MAINTENANCE
FOR UPDATE (TO ENSURE
QUALITY)**



CODE QUALITY IS NOT ENOUGH

Annual Size of the Global Datasphere



Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, Nov 2018

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

Staging Server

1985 - 2015

Jolly were the times when we
could test everything before
deploying to prod



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



PRODUCTION STEAMS ITS WAY TO THE DEVELOPERS!



WELCOME TO ON-CALL!

SOFTWARE CRAFTSMAN DEFINITION OF DONE

- ✓ We understand what needs to be done
- ✓ Our code is readable, simple, understandable
- ✓ Our code is easy to deploy
- ✓ Non-functional requirements are met
- ✓ We didn't incur any technical debt (and even reduced some)
- ✓ Our tests pass
- ✓ QA took a look and they are happy
- ✓ Team lead took a look, and they are happy
- ✓ Product owner took a look, and they are happy
- ✓ Client took a look, and they are happy
- ✓ SRE took a look, and they are happy

What is SRE?

SRE is what you get when you treat operations as if it's a software problem. Our mission is to protect, provide for, and progress the software and systems behind all of Google's public services — Google Search, Ads, Gmail, Android, YouTube, and App Engine, to name just a few — with an ever-watchful eye on their availability, latency, performance, and capacity.

SRE TOOK A LOOK, AND THEY ARE HAPPY

- ✓ We understand how our code is going to be deployed
- ✓ The build is reliable, repeatable, and fast
- ✓ Our code is stateless, thus scalable
- ✓ Our code starts fast and dies fast
- ✓ Our code is observable
- ✓ Our code supports feature flags
- ✓ Our code backwards and forwards compatible
- ✓ Our code emits event streams





THE TWELVE-FACTOR APP

THE TWELVE FACTORS

I. Codebase

One codebase tracked in revision control, many deploys

II. Dependencies

Explicitly declare and isolate dependencies

III. Config

Store config in the environment

IV. Backing services

Treat backing services as attached resources

V. Build, release, run

Strictly separate build and run stages

VI. Processes

Execute the app as one or more stateless processes

VII. Port binding

Export services via port binding

VIII. Concurrency

Scale out via the process model

IX. Disposability

Maximize robustness with fast startup and graceful shutdown

X. Dev/prod parity

Keep development, staging, and production as similar as possible

XI. Logs

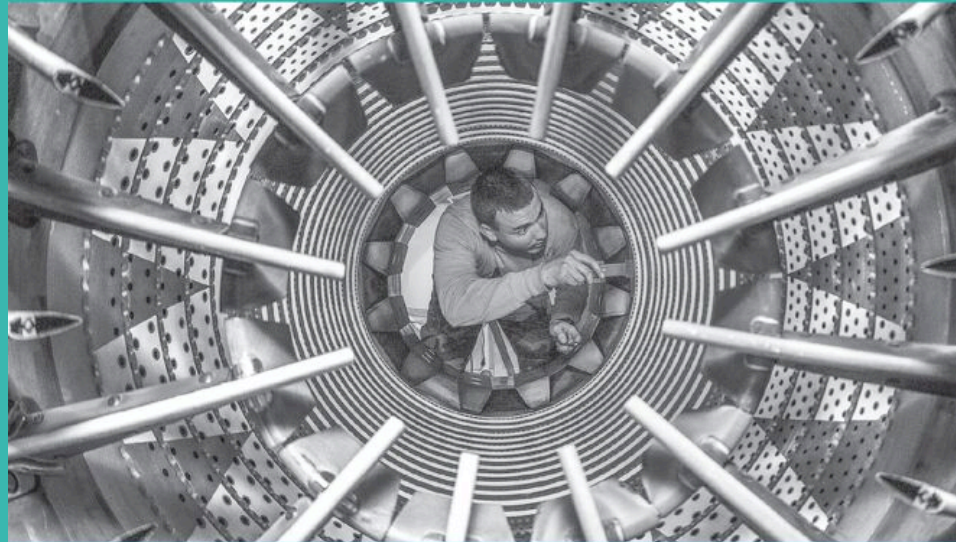
Treat logs as event streams

XII. Admin processes

Run admin/management tasks as one-off processes

Beyond the Twelve-Factor App

Exploring the DNA of Highly Scalable,
Resilient Cloud Applications



Kevin Hoffman

SRE TOOK A LOOK, AND THEY ARE HAPPY

- ✓ We understand how our code is going to be deployed
- ✓ The build is reliable, repeatable, and fast
- ✓ Our code is stateless, thus scalable
- ✓ Our code starts fast and dies fast
- ✓ Our code is observable
- ✓ Our code supports feature flags
- ✓ Our code backwards and forwards compatible
- ✓ Our code emits event streams
- ✓ Our code is lean



Save
MORE
by wasting
LESS

AWS Service Charges

+ Expand All

Details

AWS Service Charges

CloudTrail

CloudWatch

US East (Northern Virginia) Region

AmazonCloudWatch TimedStorage-ByteHrs

\$0.0393545848 per GB-mo of log storage - US East (Northern Virginia) (blended price)*

0.000051 GB-Mo

Data Pipeline

Data Transfer

Directory Service

Elastic Compute Cloud

ElastiCache

Key Management Service

Lambda

RDS Service

Route 53

Simple Notification Service

Simple Queue Service

Simple Storage Service

SimpleDB

Support (Developer)

Virtual Private Cloud

Taxes

CT to be collected

GST to be collected

US Sales Tax to be collected

VAT to be collected



KAFKA SUMMIT SF 2019

September 30 – October 1, 2019 | San Francisco



[ABOUT](#)

[SCHEDULE](#)

[SPEAKERS](#)

[SPONSORS](#)

[VENUE](#)

[TRAINING & CERTIFICATION](#)

Achieving a 50% Reduction in Cross-AZ Network Costs from Kafka

Session Level: Intermediate

October 1, 2019, 11:25 am – 12:05 pm , Core Kafka,



Uday Sagar Shiramshetty
Software Engineer, SignalFx

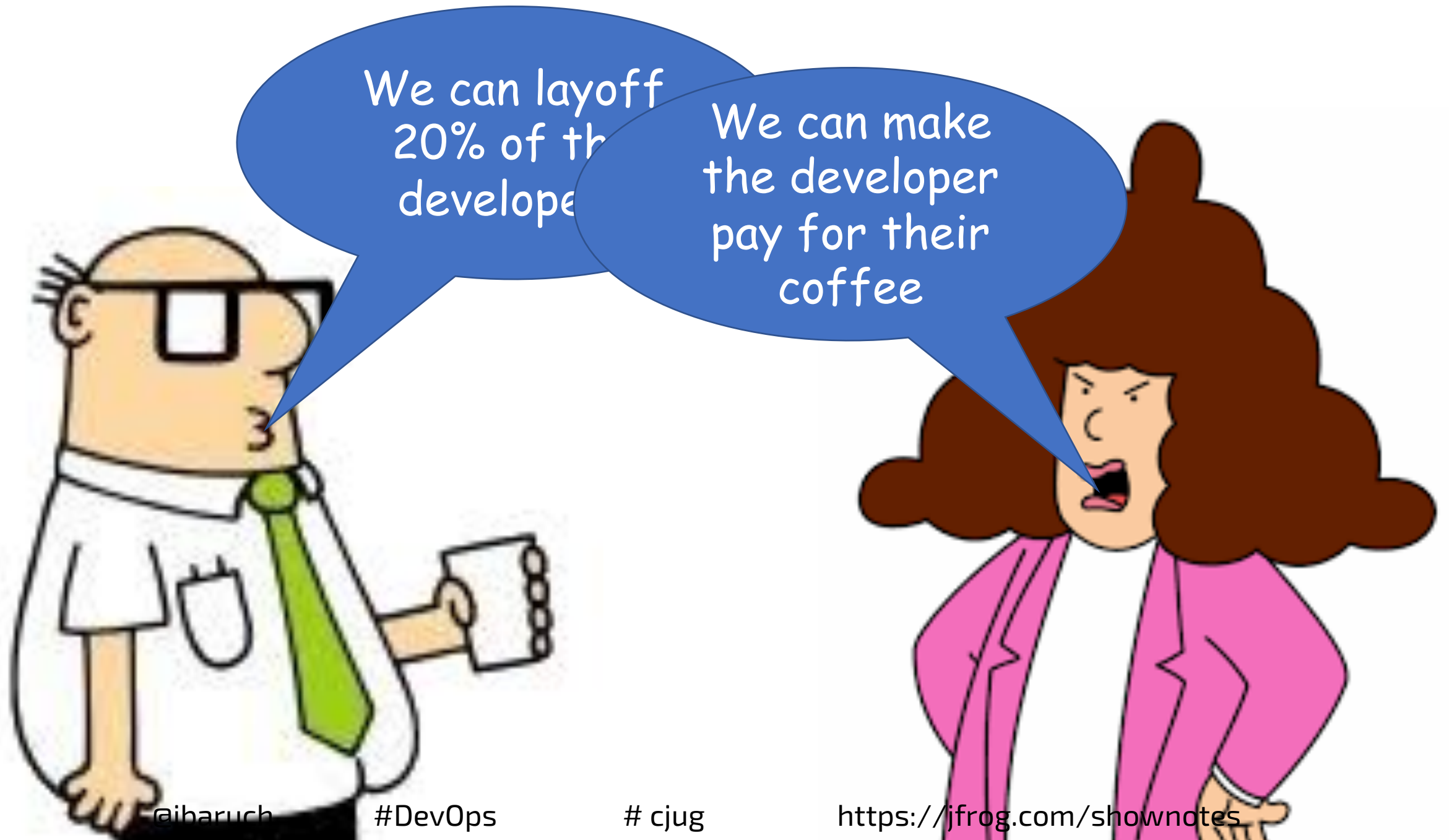


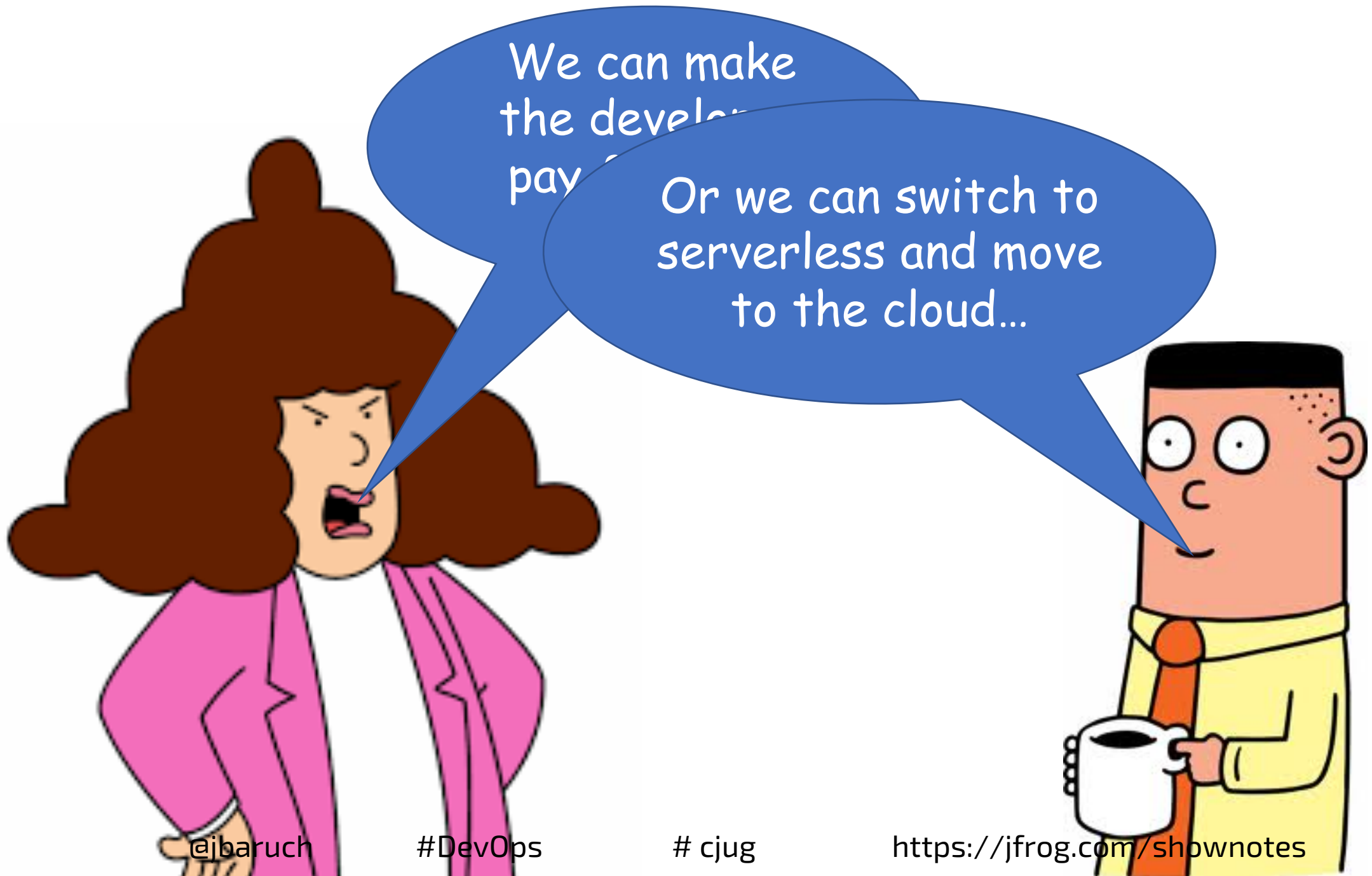
BUSINESS STEAMS ITS WAY TO THE DEVELOPERS!



We have to
cut costs!

We can layoff
20% of the
developers





Google how to
pronounce
'kubectl'!

Layoffs?!

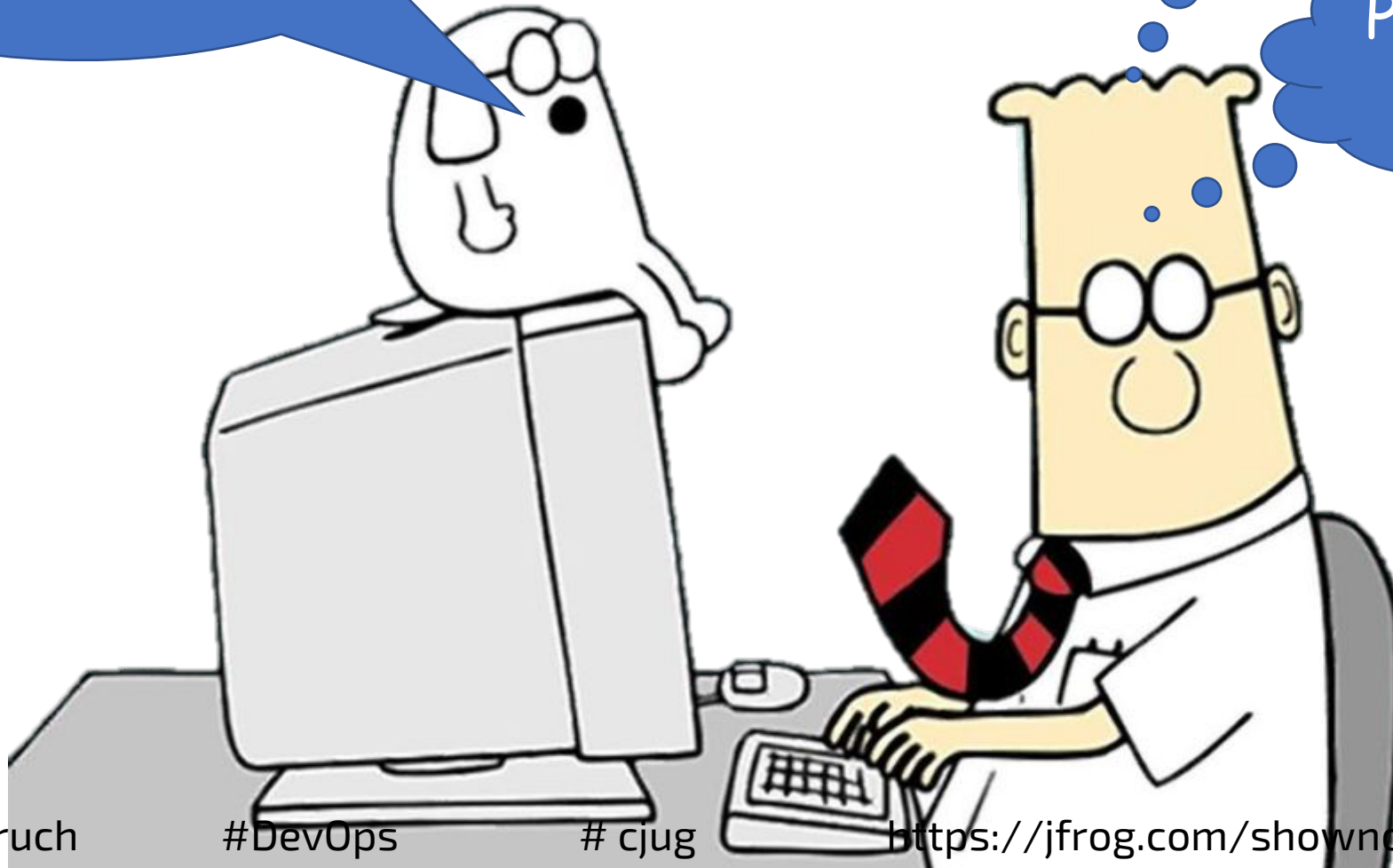
Paying for
coffee?!

@jbaruch

#DevOps

#cjug

<https://jfrog.com/shownotes>



A cartoon illustration of a man with a large head, wearing a blue suit, white shirt, and red tie. He is smiling and looking upwards. A blue speech bubble points to his mouth.

We need more
happy
customers!

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

WHAT DO WE WANT



NEW FEATURES!



WHEN DO WE THEM?



YESTERDAY!



ELITE PERFORMERS

Comparing the elite group against the low performers, we find that elite performers have...



208
TIMES MORE
frequent code deployments

106
TIMES FASTER
lead time from
commit to deploy



2,604
TIMES FASTER
time to recover from incidents

7
TIMES LOWER
change failure rate
(changes are $\frac{1}{7}$ as likely to fail)





We need to
improve our
security!

Hire CISO, so
you have someone
to blame!

20
MPH - 6m - - 6m -
12m (40 Feet)

30
MPH ---- 9m ---- - - - - 14m ----
23m (75 Feet)

40
MPH ----- 12m ----- - - - - - 24m -----
36m (118 Feet)

50
MPH ----- 15m ----- - - - - - 38m -----
53m (174 Feet)

60
MPH ----- 18m ----- - - - - - 55m -----
73m (240 Feet)

70
MPH ----- 21m ----- - - - - - 75m -----
96m (315 Feet)

Stopping Distances

Key



Thinking
Distance

Braking
Distance

Formula

Thinking
Distance + Braking
Distance = Stopping
Distance

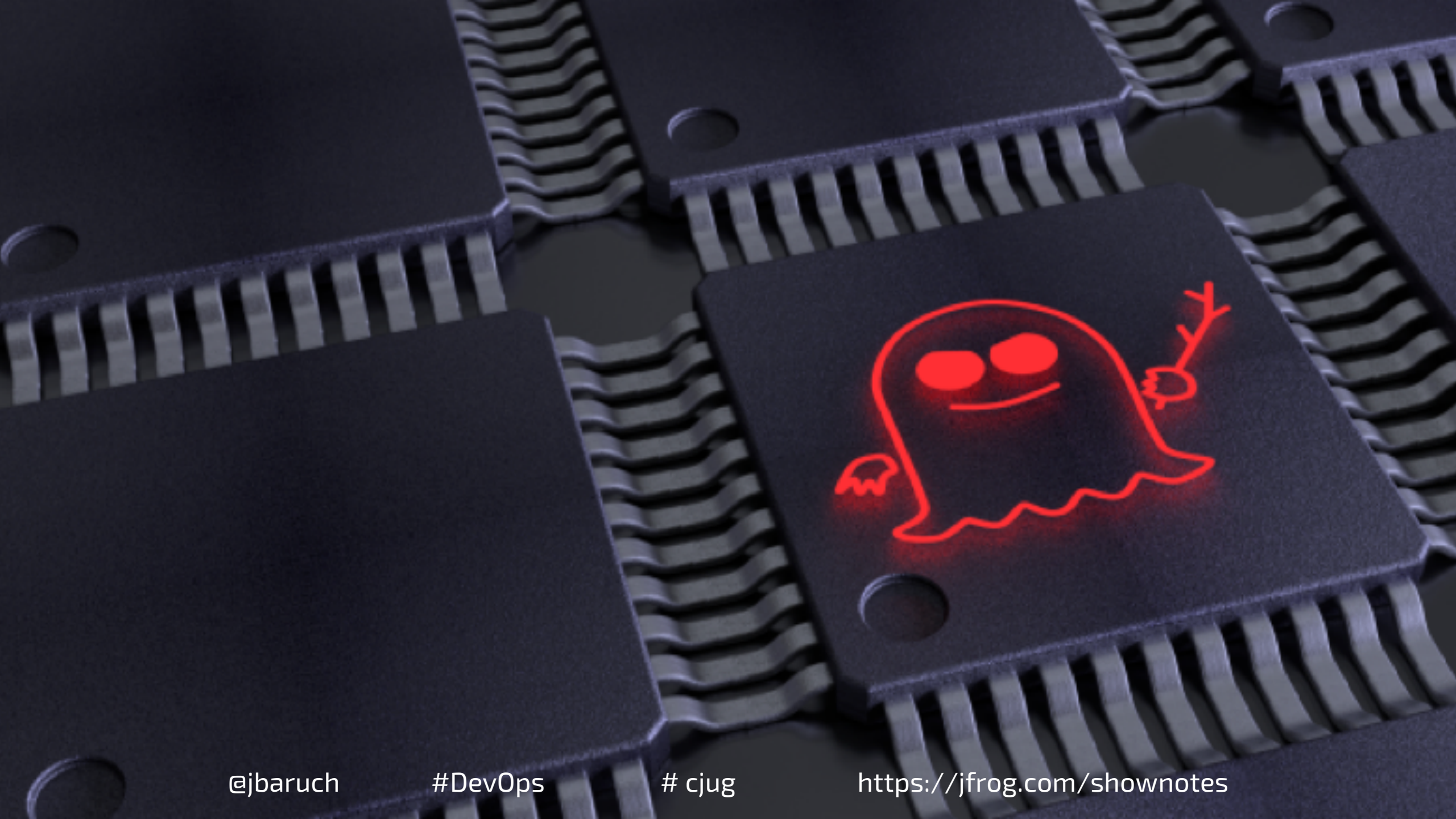


@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>



@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

Chips may be inherently vulnerable to Spectre and Meltdown attacks

Most malware exploits coding errors and poor design. But Google security researchers say a fundamental flaw in the nature of computing could make some threats impossible to defeat.

by **Emerging Technology from the arXiv**

Feb 25, 2019

ELITE PERFORMERS

Comparing the elite group against the low performers, we find that elite performers have...



208
TIMES MORE
frequent code deployments

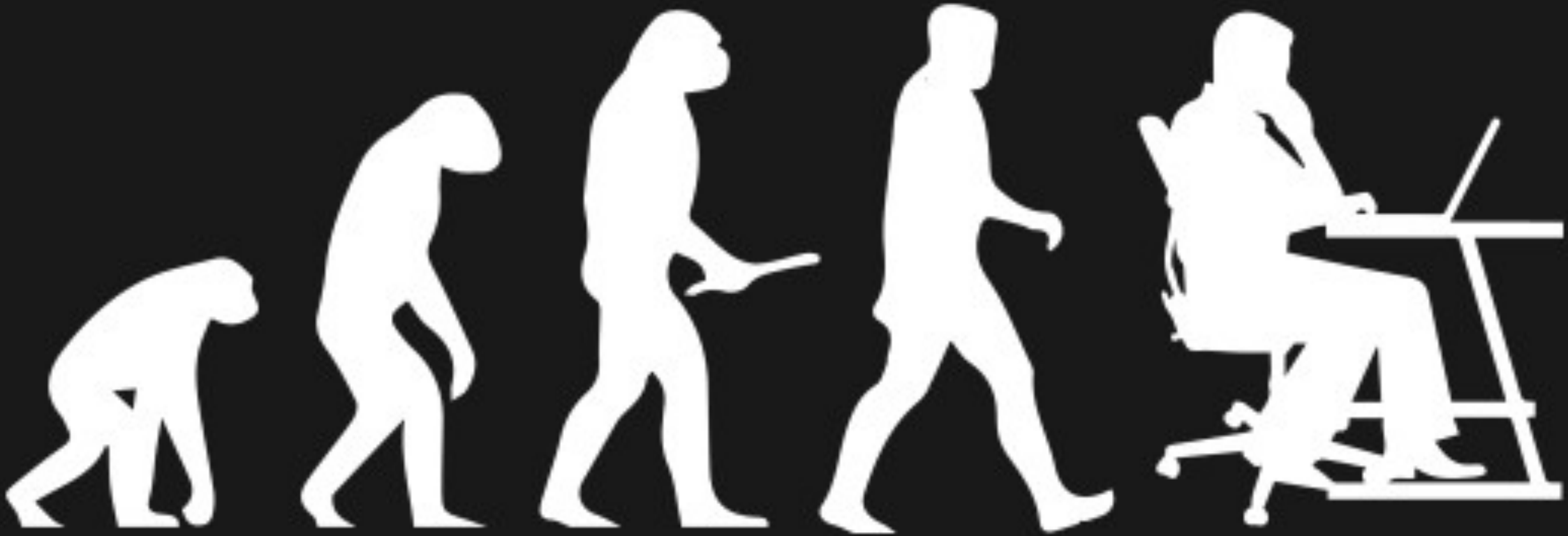
106
TIMES FASTER
lead time from
commit to deploy



2,604
TIMES FASTER
time to recover from incidents

7
TIMES LOWER
change failure rate
(changes are $\frac{1}{7}$ as likely to fail)





@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

DEVOPS IS A MEAN TO AN END



Quality



Lean software



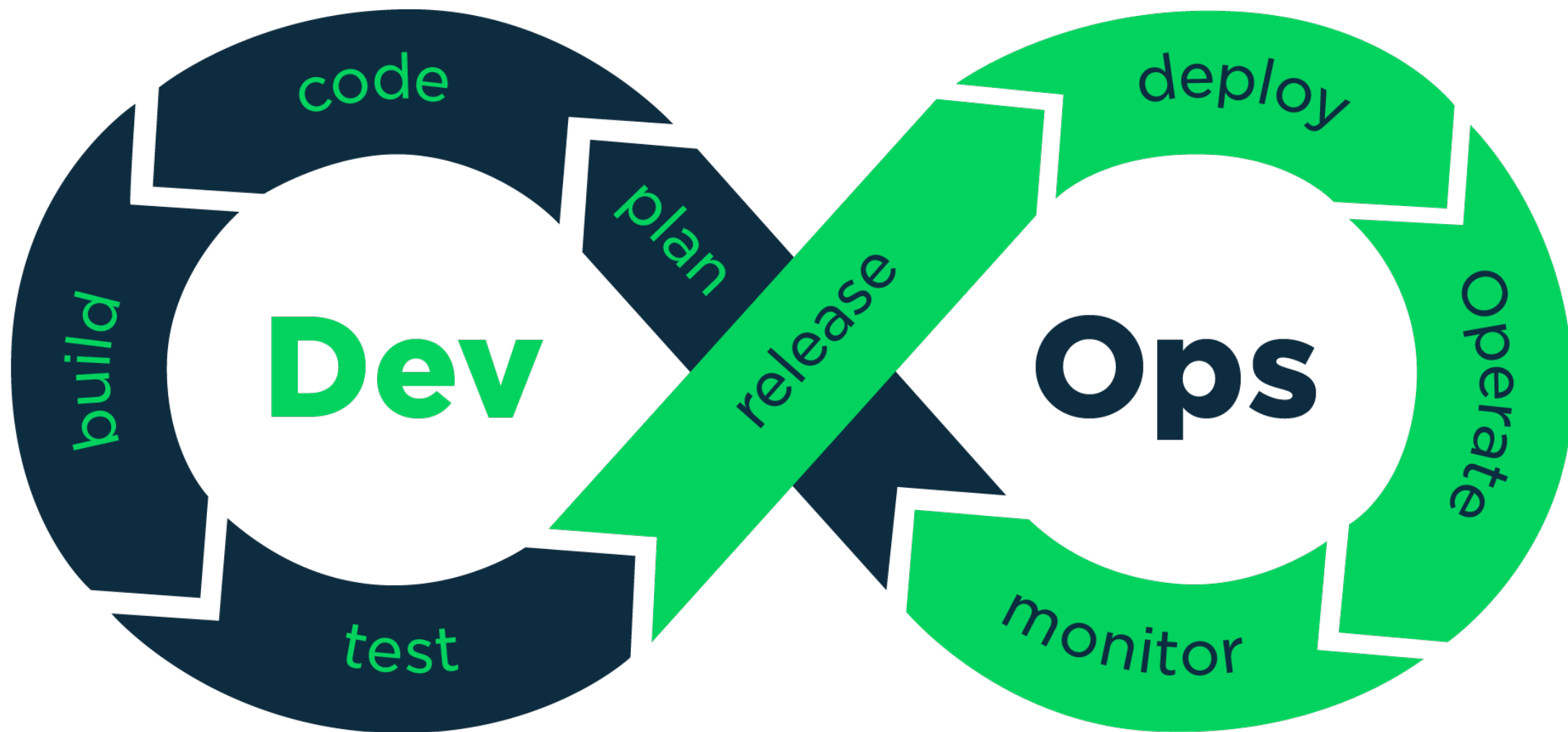
New Features

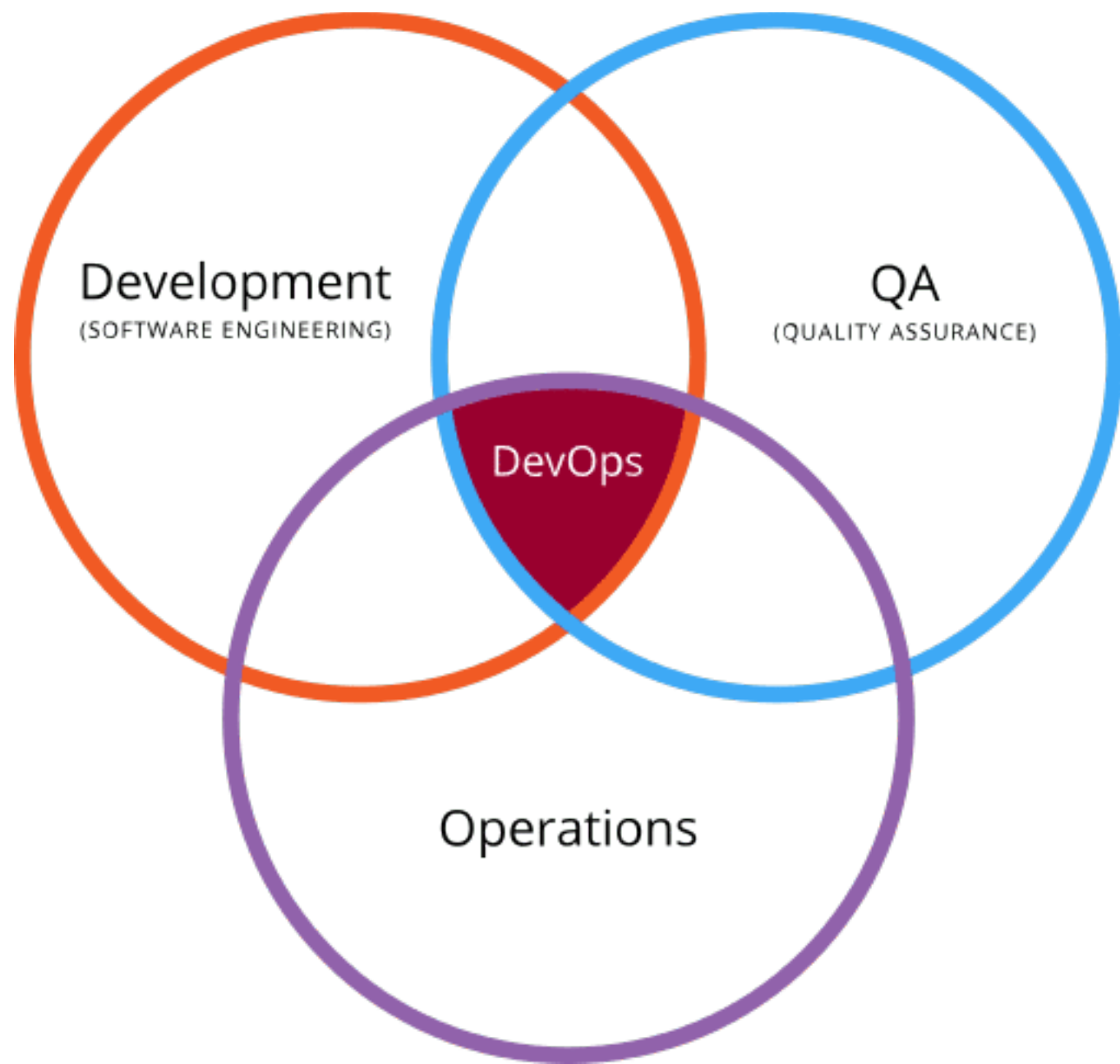


Security



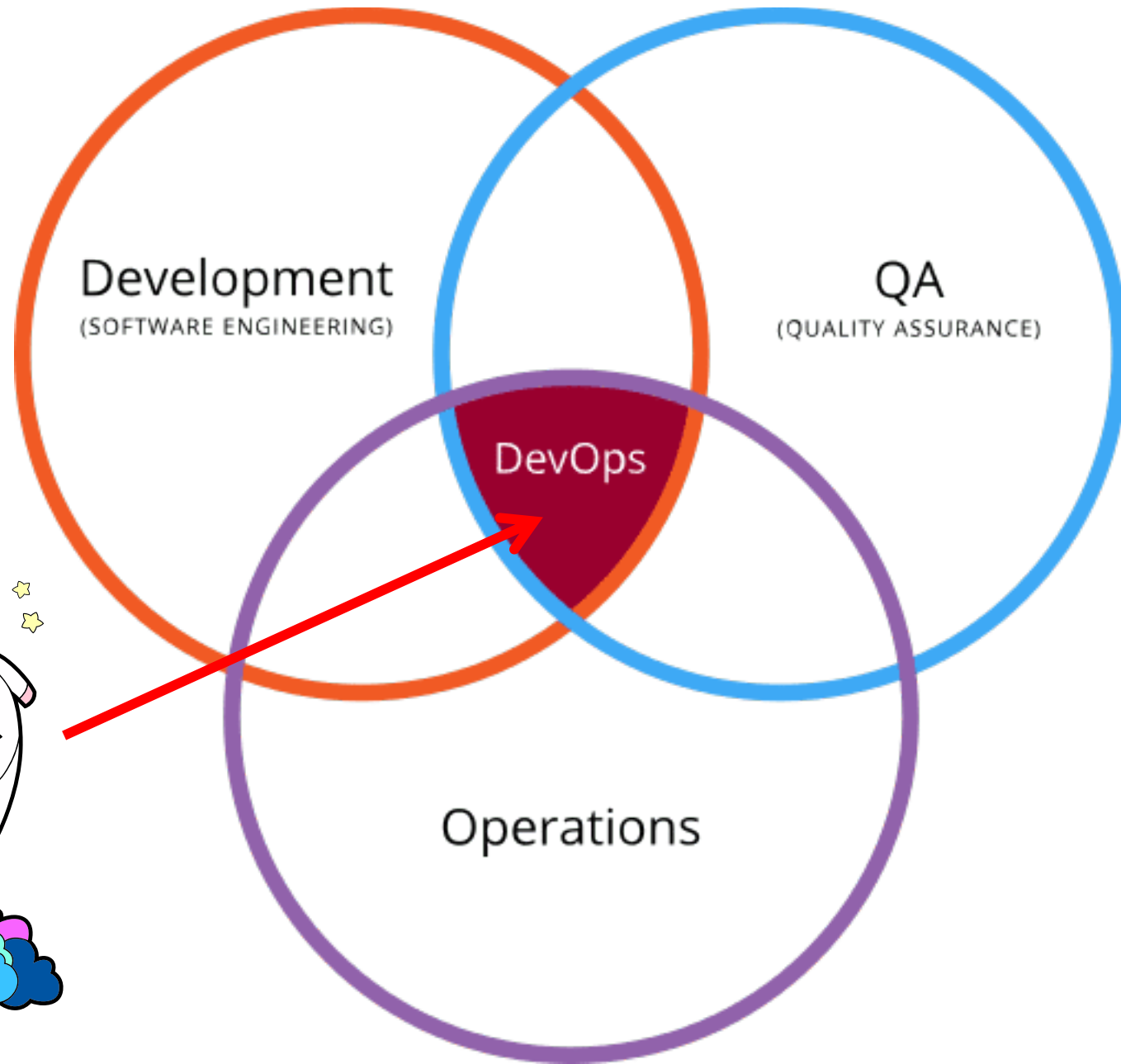
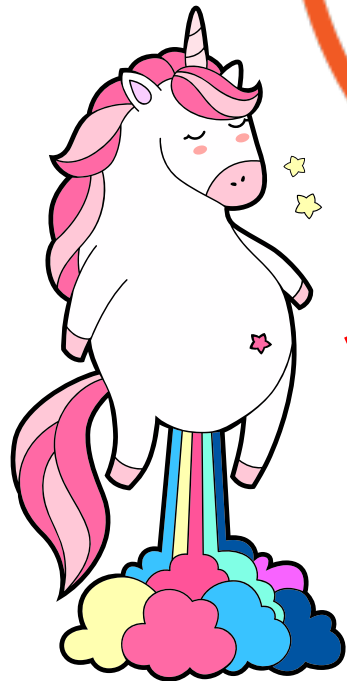
WELCOME TO DEVOPS!

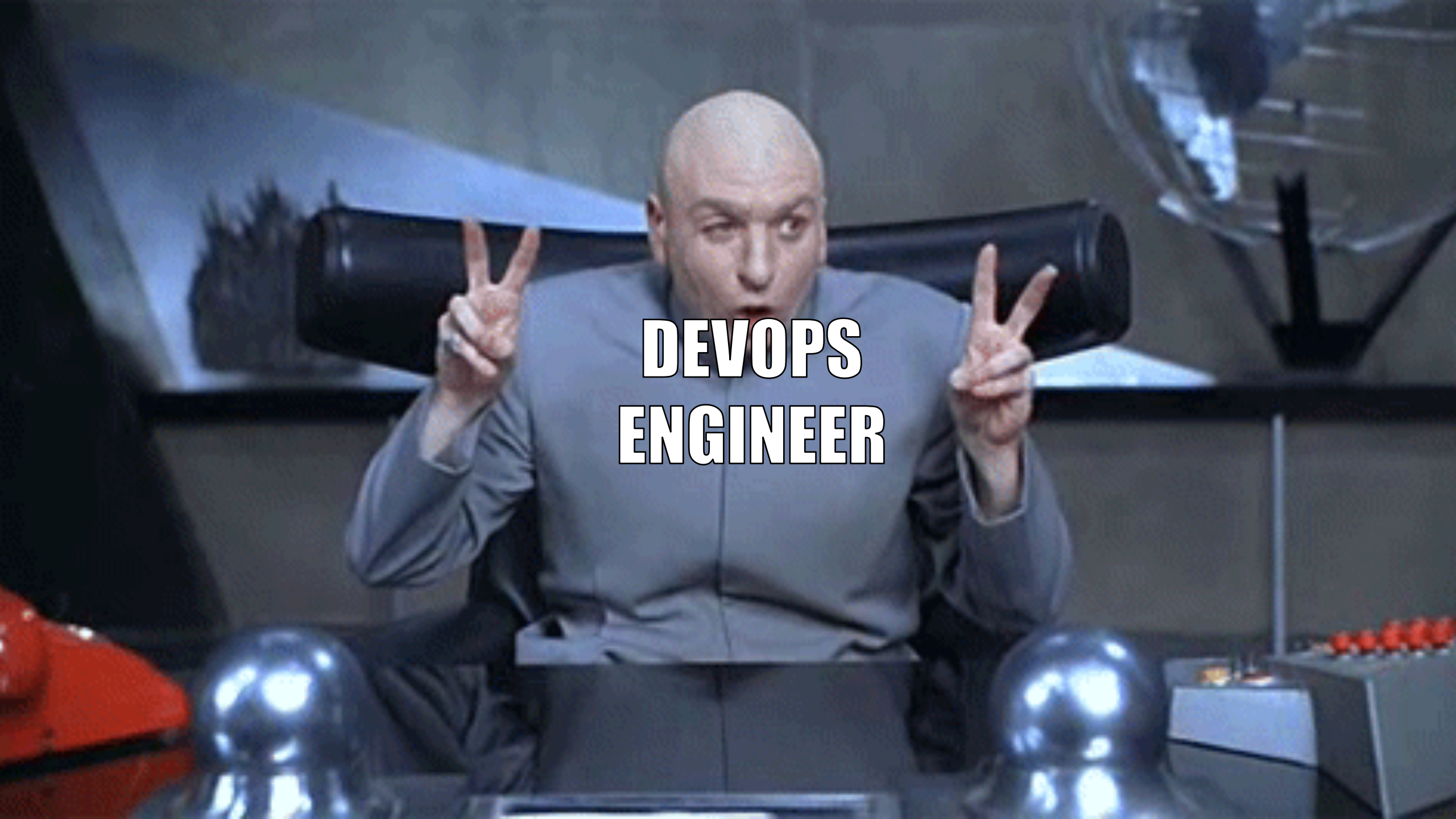




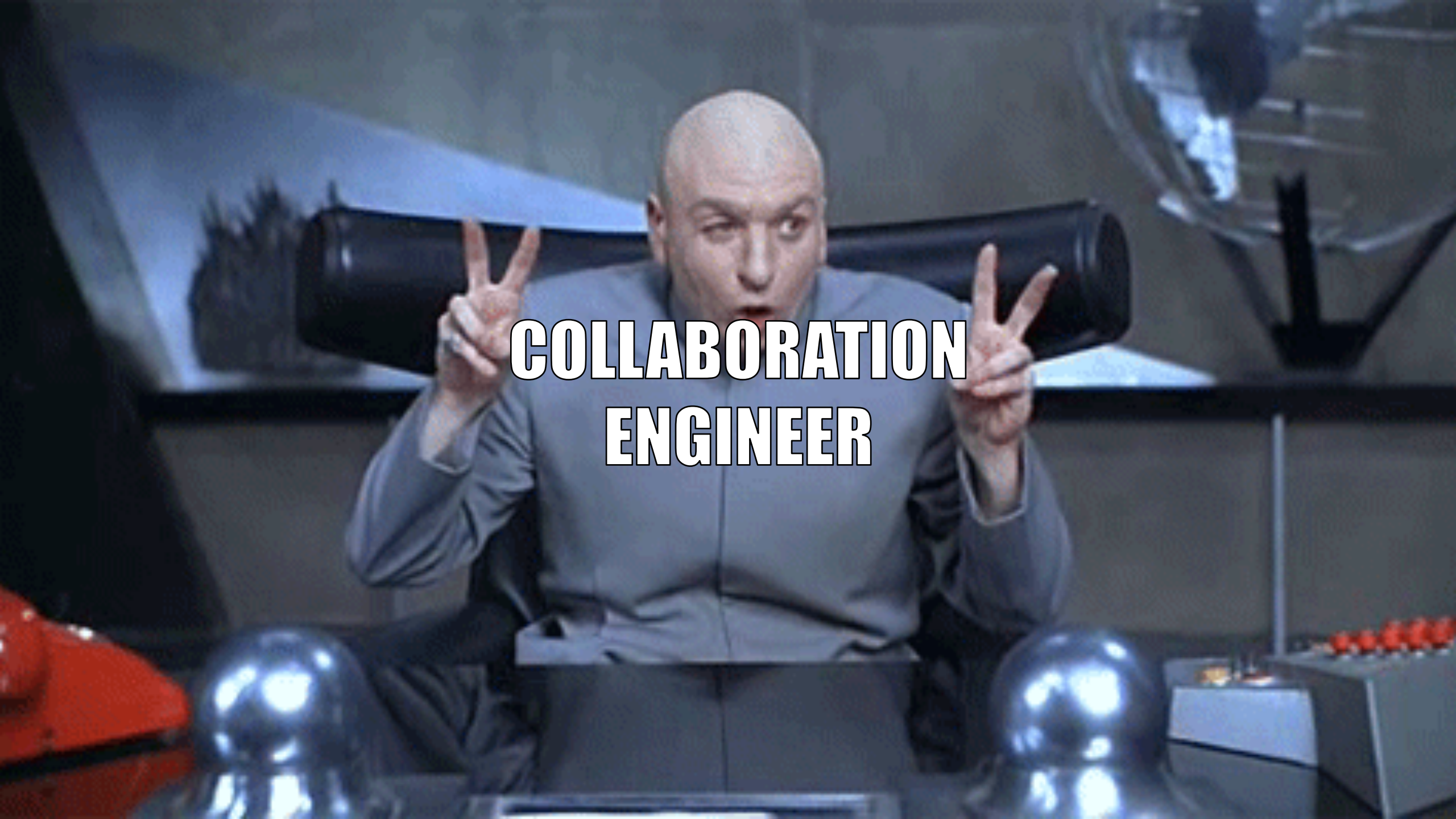
Good News,
Everyone!



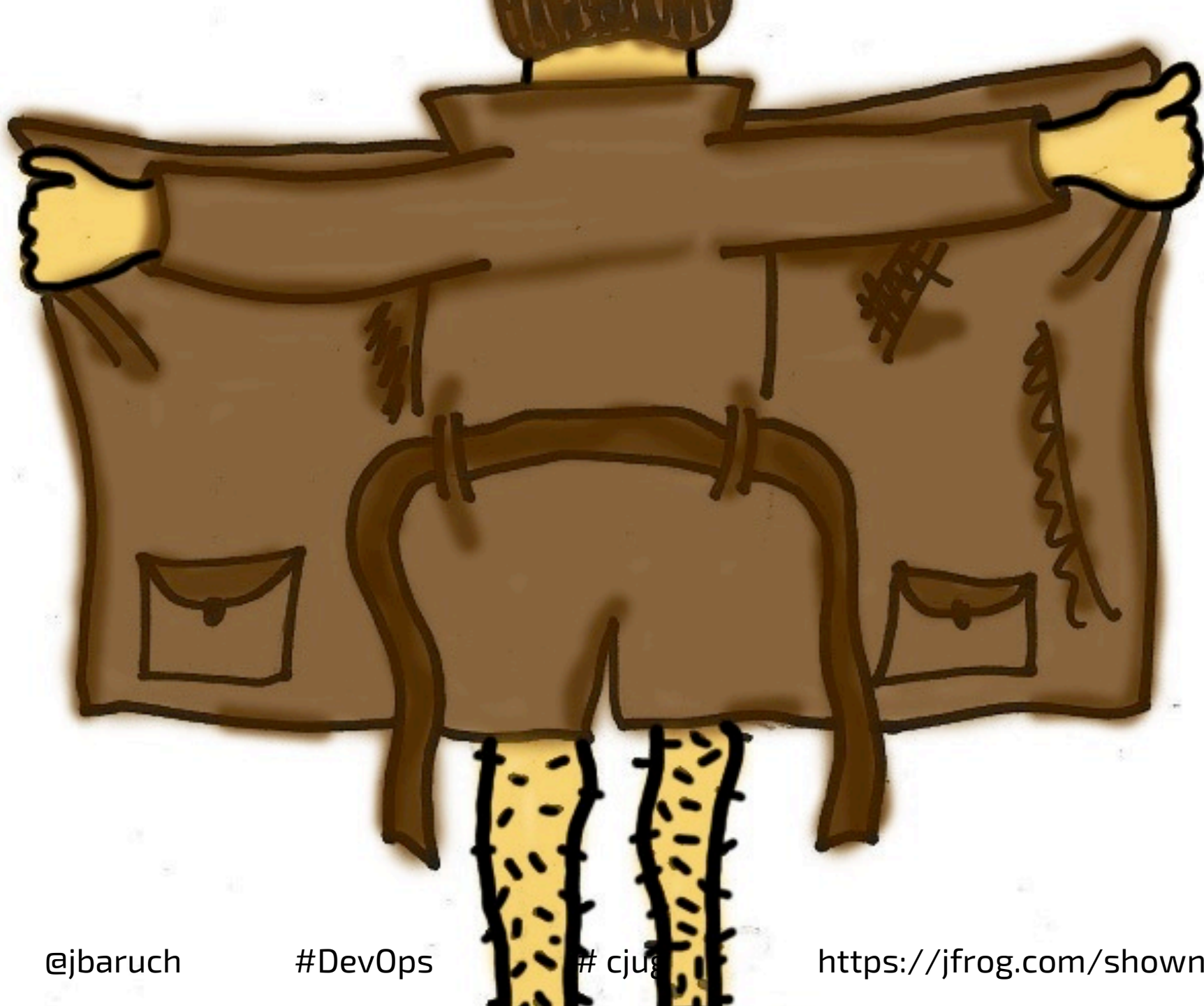


A meme featuring a man in a grey jumpsuit, bald, holding a large black cylinder over his shoulders and making peace signs with both hands. The background is a dark, industrial-looking setting with some red and metallic elements. The text "DEVOPS ENGINEER" is overlaid in the center.

**DEVOPS
ENGINEER**

A meme featuring Gene Wilder as Dr. Strangelove. He is bald, has a wide-eyed, crazed expression, and is wearing a grey military uniform. He is making peace signs with both hands. A large, black, cylindrical nuclear missile is balanced horizontally across his shoulders. The background is a dimly lit control room with various dials and equipment. The text "COLLABORATION ENGINEER" is overlaid in the center in a bold, white, sans-serif font with a black outline.

**COLLABORATION
ENGINEER**



@jbaruch

#DevOps

#cjug

<https://jfrog.com/shownotes>



ACCELERATE State of DevOps 2019

Sponsored by



Pivotal

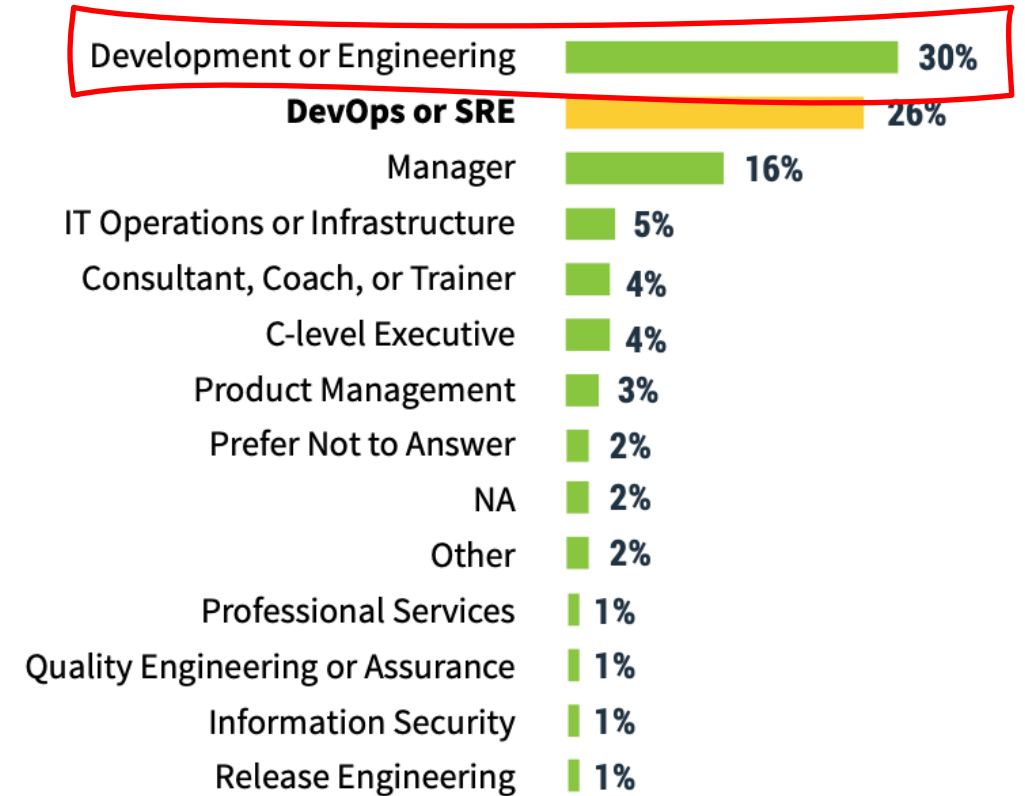
Deloitte.

sumo logic



DEPARTMENTS

Participants who work in DevOps teams have increased since we began our study, reporting 16% in 2014, 19% in 2015, 22% in 2016, and holding steady around 27% for the past three years. (Note this is within the margin of error.)



PERFORMANCE METRICS



SOFTWARE DEPLOYMENT



SERVICE OPERATION

Lead Time

Change Fail

Availability

Deployment Frequency

Time to Restore

FOUR KEY METRICS

@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

An isometric illustration of a multi-level office building. The building is constructed from grey stone blocks. Several levels are visible, each with white floors and pink stairs. People are depicted working at desks, some with computers. A unicorn is shown on one of the upper levels. Blue lines, possibly representing data or network connections, flow through the building. The overall style is colorful and detailed.

The Unicorn Project

A Novel about Developers,
Digital Disruption, and
Thriving in the Age of Data

Gene Kim

Author of *The Phoenix Project*

What is SRE?

SRE is what you get when you treat operations as if it's a software problem. Our mission is to protect, provide for, and progress the software and systems behind all of Google's public services — Google Search, Ads, Gmail, Android, YouTube, and App Engine, to name just a few — with an ever-watchful eye on their availability, latency, performance, and capacity.



- ✓ Yes, DevOps is an Ops idea
- ✓ But the business liked it!
- ✓ It's quality, it's lean, it's competitive advantage, it's security
- ✓ It's not as bad as it sounds.

Now everything is code, and we love code!

- ✓ All we need to do is follow principles and practices, and that we know how to do!





@jbaruch

#DevOps

cjug

<https://jfrog.com/shownotes>

TWITTER ADS AND Q&A

@jbaruch

#cjug

#DevOps

<https://jfrog.com/shownotes>

