



# **BARUCH SADOGURSKY**

CHIEF STICKER OFFICER

(ALSO ... OF DEVELOPER ADVOCACY)

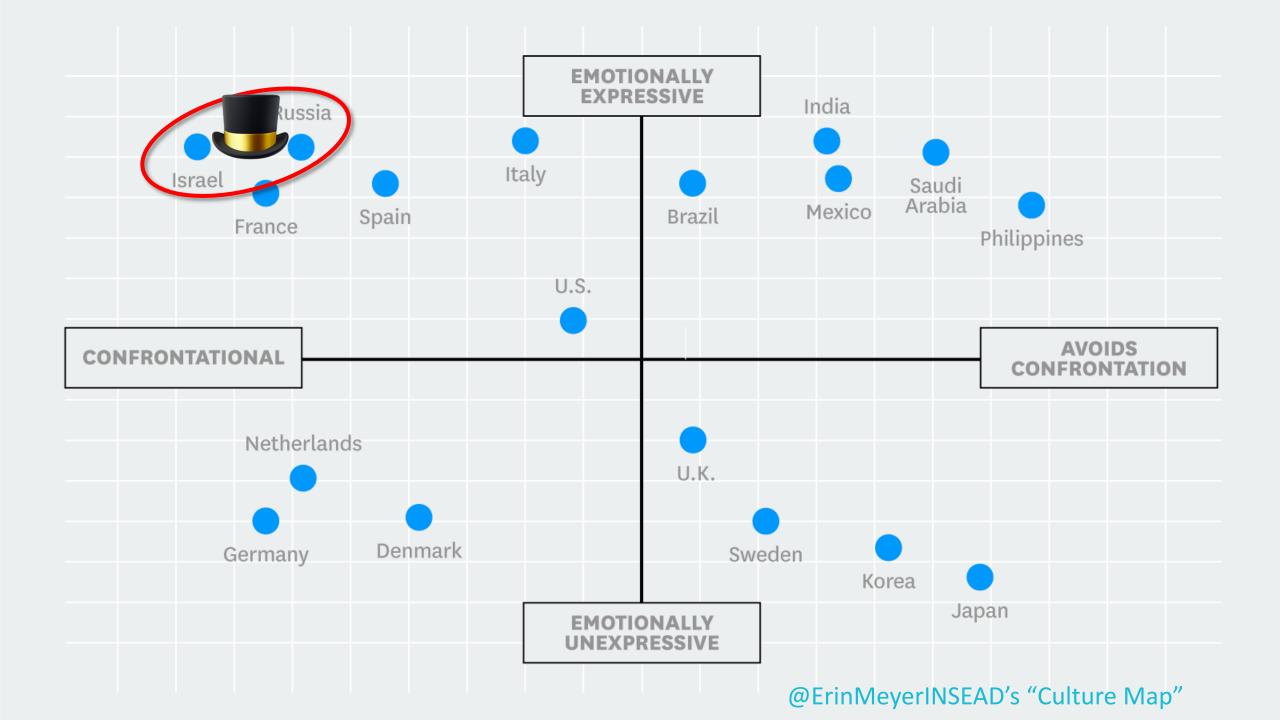


@JBARUCH

+1(408)890-9281







# **SHOWNOTES**

- http://jfrog.com/shownotes
  - Slides
  - Video
  - Links
  - Comments, Ratings
  - Raffle





## **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

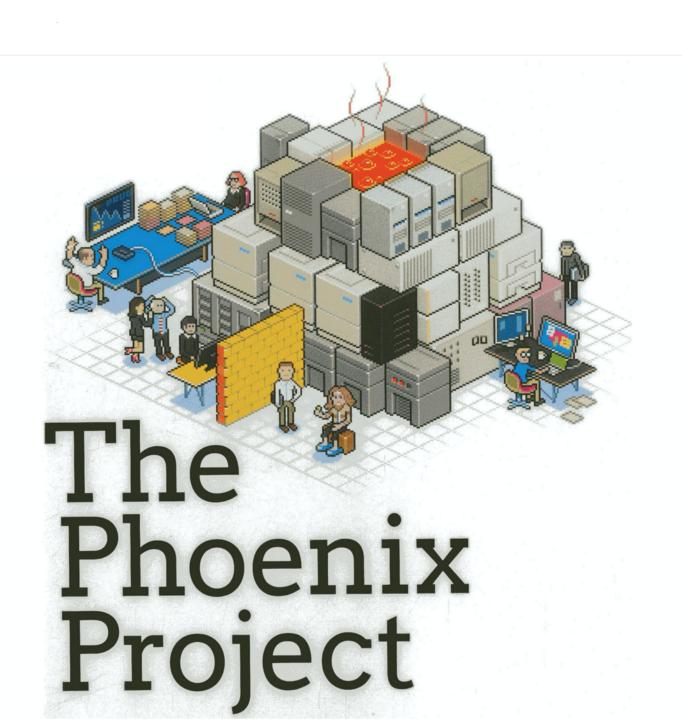
Consulting, building architectures and design, mentoring, and developing in various Java-related projects on the topics, described in Specialties section above;

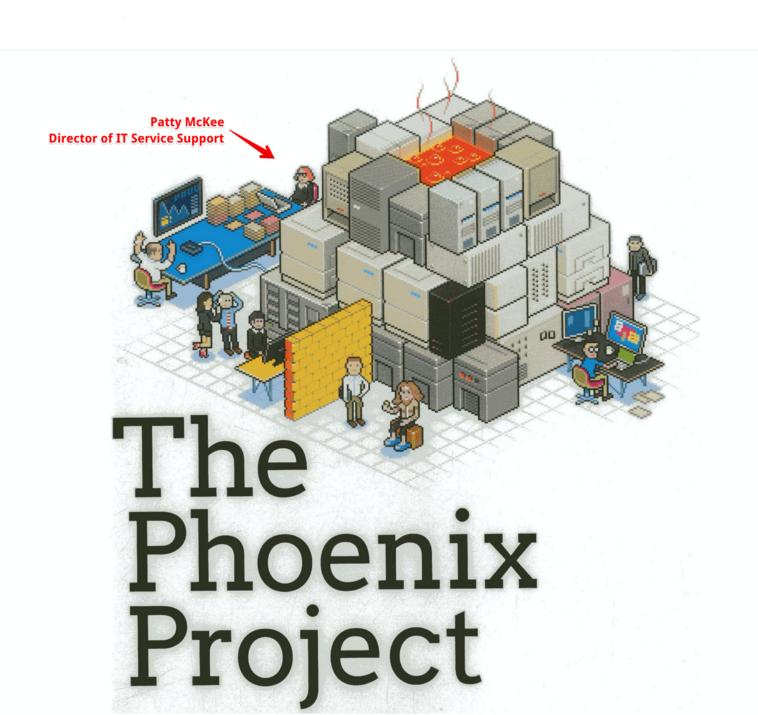
Among the customers: BMC, Logia, IDF, Starhome (Comverse), Malam, Cisco, IDI, IDIT, Isracard, Virtual Tweens, Amobee, SolarEdge, Checkpoint, Cadence, Evolven, ExLibris, Retalix, ... See more

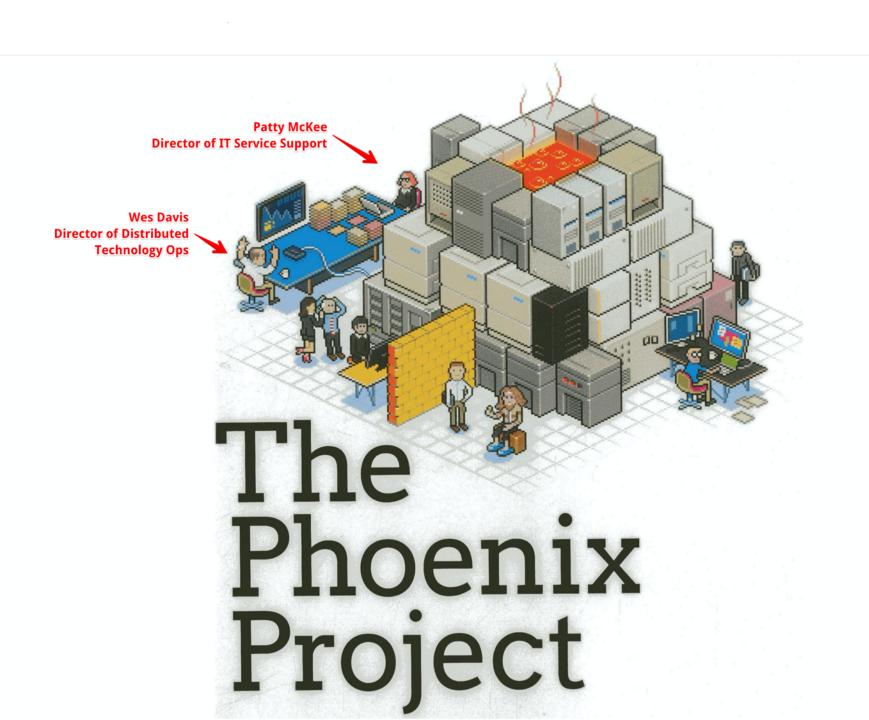
## **Senior Developer**

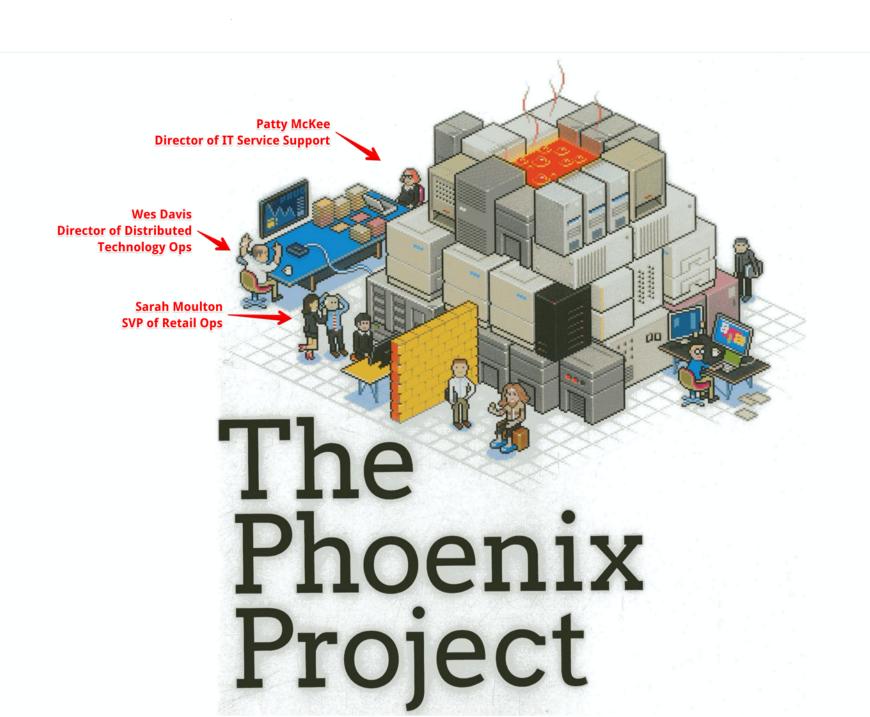
Oct 2004 – Jan 2007 · 2 yrs 4 mos

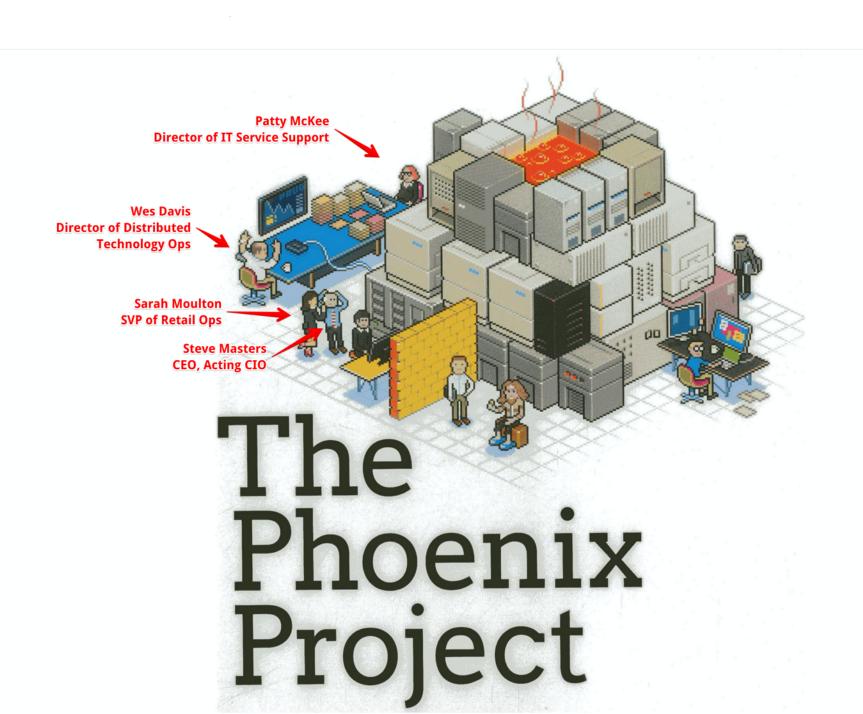
Working on various projects in BMC Software Israel

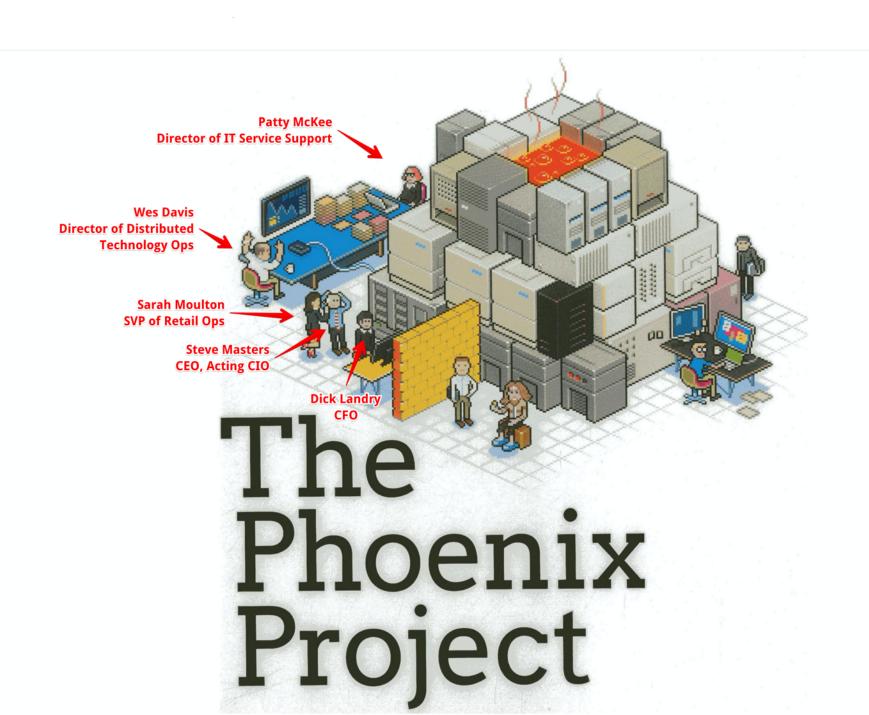


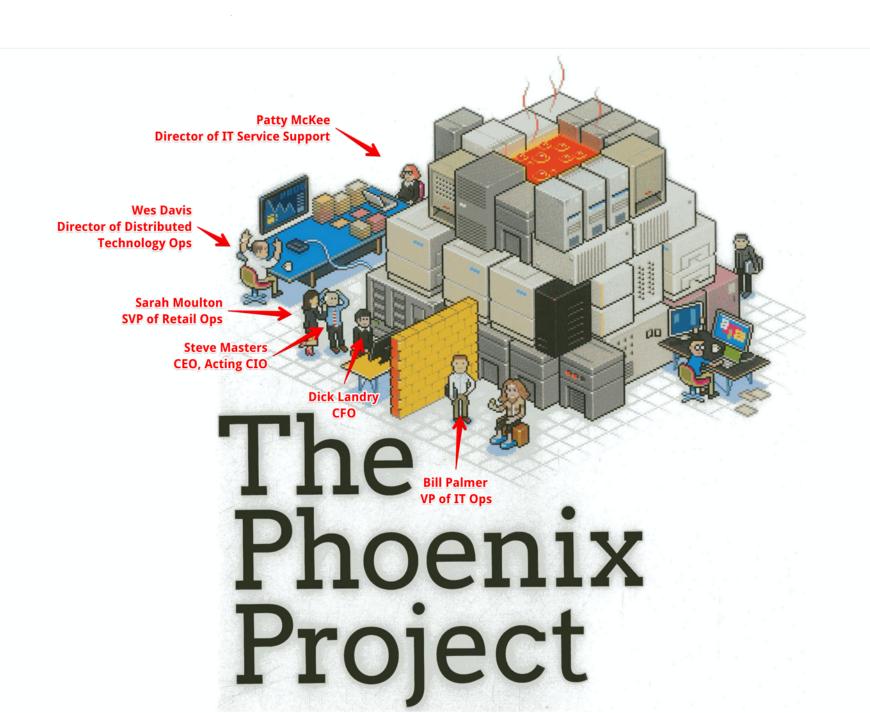


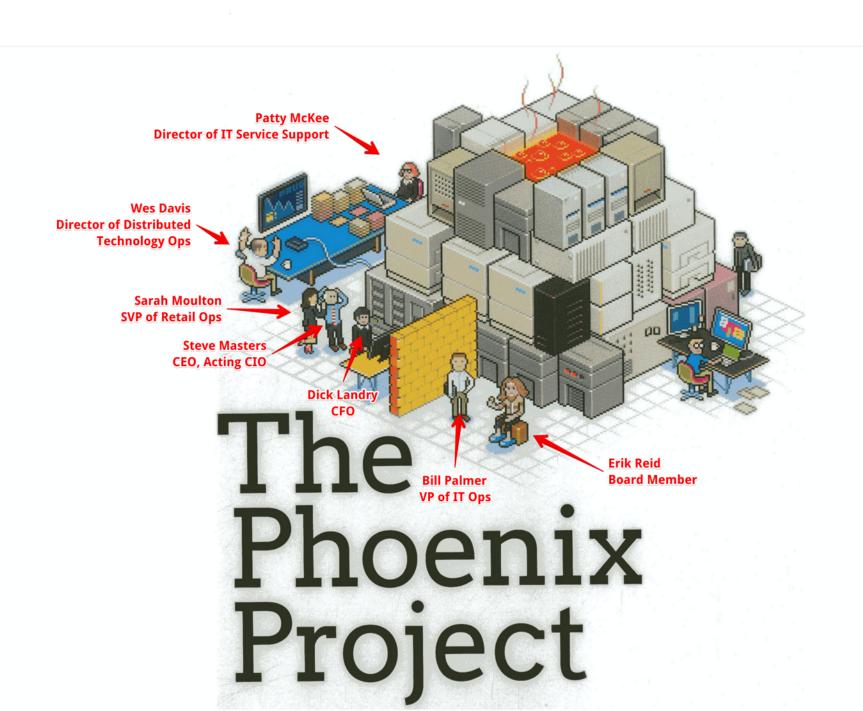


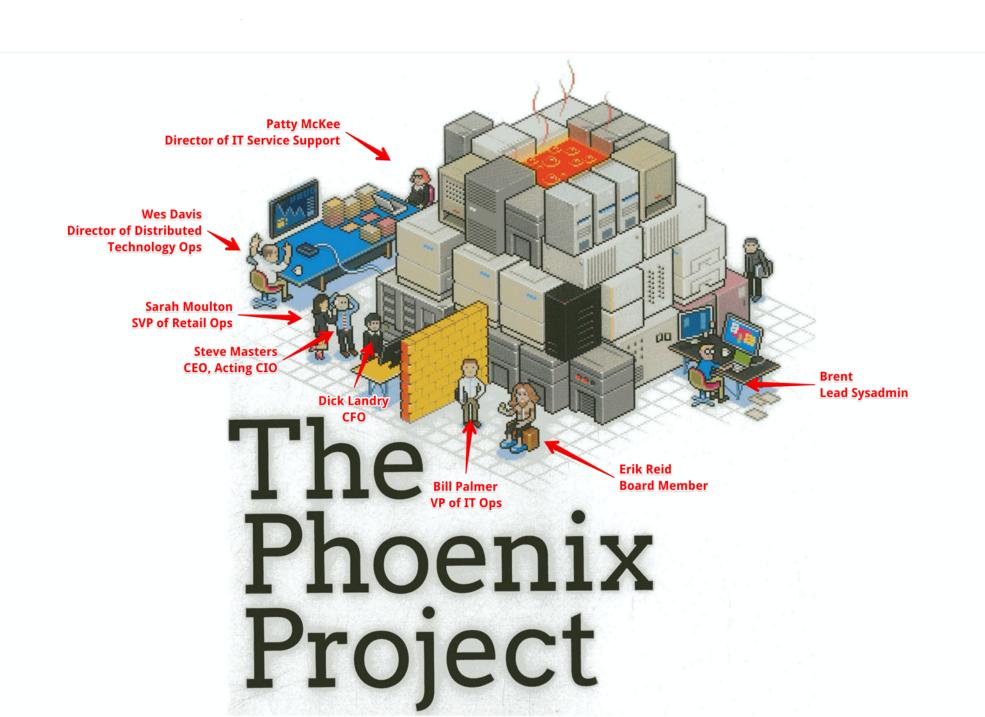


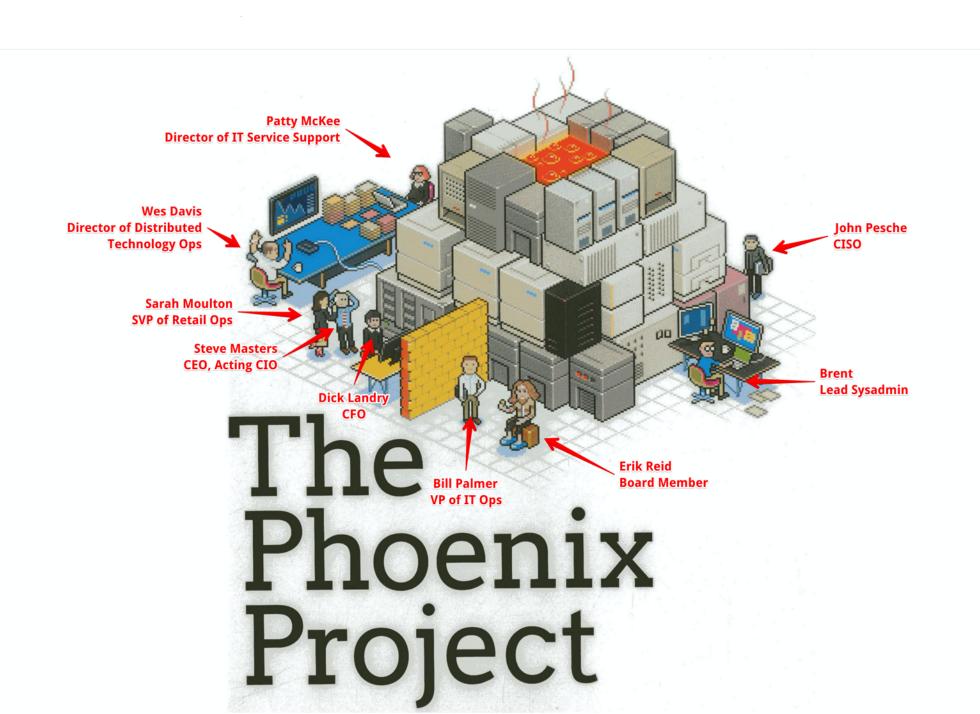














The

# DevOps Handbook

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



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#DevOps

#GIDS

https://jfrog.com/shownotes

PATRICK DEBOIS,

& JOHN WILLIS



2012 - 2013 · 1 yr



#### **Project Manager**

Synergics

2010 · less than a year



#### Multimedia Researcher

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 wit content it is producing. The purpose of this project is to make this data more 'se



#### 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 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 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 automate the identity and access management of their IT environment.

... See more



## System Architect/Technical Consultant/Technical Project Manager (

Mar 2004 - Jan 2005 · 11 mos

Intranet portal project

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



### System Architect/Technical Project Manager (ACA-IT)

Jun 2004 - Oct 2004 · 5 mos

Internet Portal Project

- \* For maintenance reasons the One Sky Extranet Stakeholders Portal infrastructi
- \* While doing the upgrade, a complete high availability design was done for furth



#### 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 product management. The other is an experiential class in which students 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 Ser GSA

Jan 2016 - Jan 2017 · 1 yr 1 mo San Francisco

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



#### Vice President

Chef (formerly Opscode)

Aug 2014 - Sep 2015 · 1 vr 2 mos



#### Founder at Botchagalupe Technologies

VP OI DEVOPS AND DIGITAL PLACTICES



#### 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.

#### Quest

#### **Director of Devops Pracitices**

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

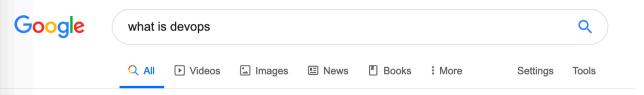


#### Cloud Evangelist

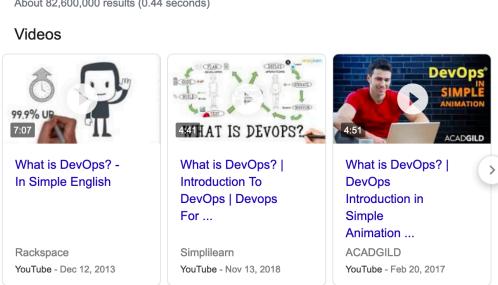
Canonical Ltd.

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)



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 informationtechnology 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

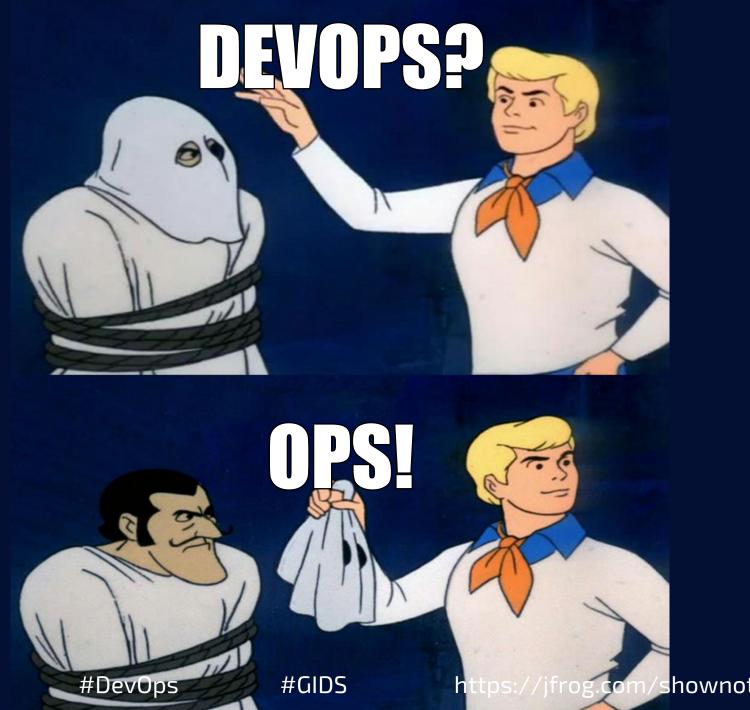
**DevOps** is a set of practices that automates the processes between software development and IT teams, in order that they can build, test, and release software faster and more reliably. The concept of **DevOps** is founded on building a culture of collaboration between teams that historically functioned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

azure.microsoft.com > Home > Overview ▼

#### What is DevOps? DevOps Explained | Microsoft Azure

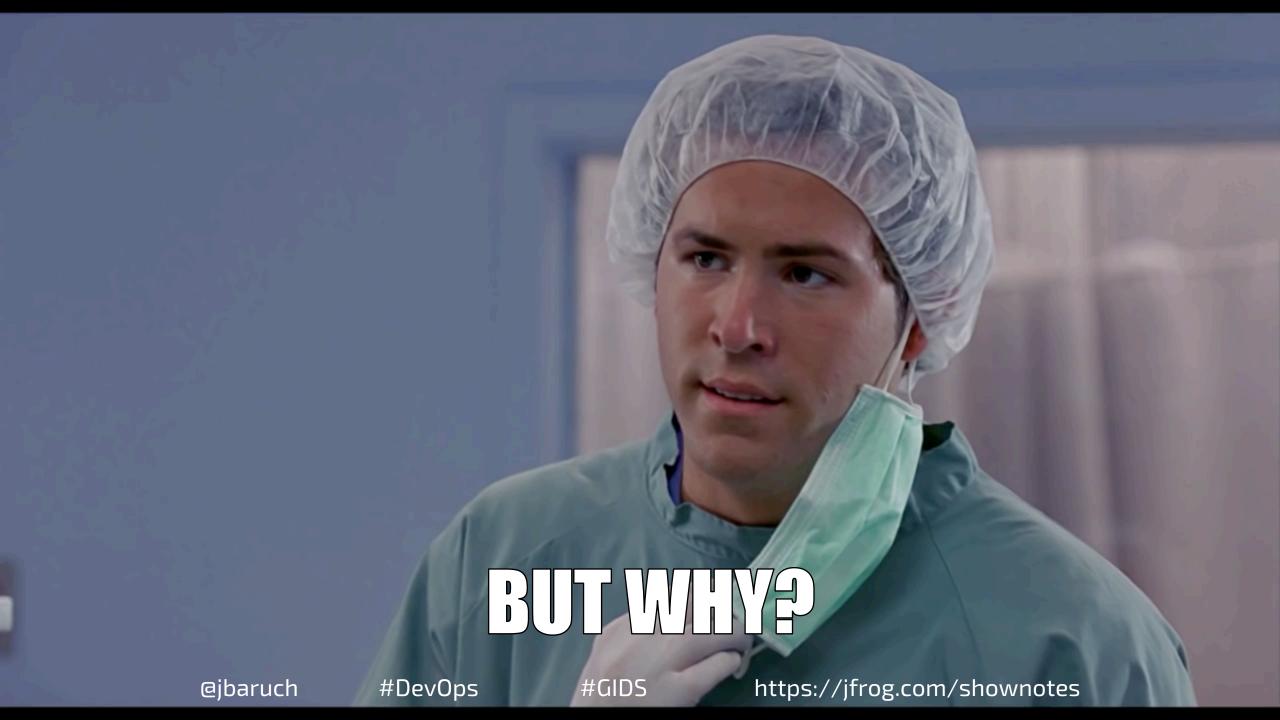
Learn the definition of **DevOps** and see how **DevOps** practices and roles improve automation and collaboration to create better products for customers.

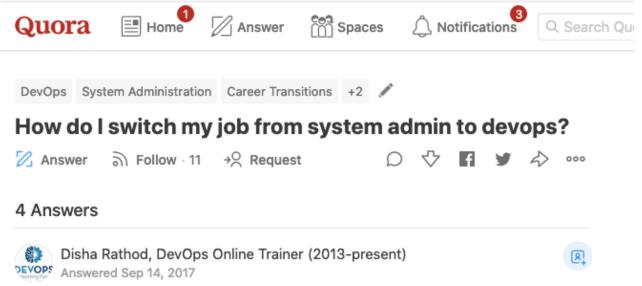
logz.io > Guides > Learn ▼



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#GIDS /shownotes





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<sub>/yr</sub>



Additional Cash Compensation ?

Average

\$3,807

Range

\$932 - \$12,002

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#Dev0ps

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 #GIDS https://jfrog.com/shownotes

# **Devops Engineer Salaries**

2,130 Salaries Updated Feb 26, 2020

Industries ~

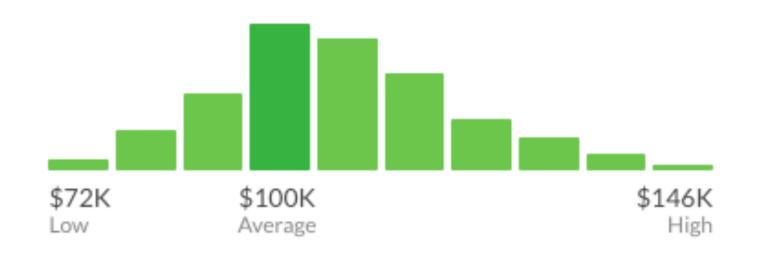
Company Sizes ∨

Years of Experience

 $\vee$ 

Average Base Pay

\$99,604<sub>/yr</sub>



Additional Cash Compensation ?

Average

\$8,714

Range

\$2,236 - \$17,548

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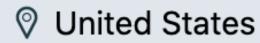
How much does a Devops Engineer make?

The national average salary for a Devops Engineer is \$99,604 in United States. Filter by location to see... More

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Q devops engineer



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

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# DevOps Engineer

**Professional** 

**Type:** Certification

Level: Advanced

**Additional Details** 

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# **AWS Certified DevOps Engineer - Professional**

**Issued by Amazon Web Services Training and Certification** 

Earners of this certification have an extensive understanding of implementing continuous delivery systems and methodologies on the AWS Cloud. They demonstrated the ability to automate resilient applications and infrastructure deployments using AWS services. Badge owners are able to enforce policies, implement automated monitoring, and configure event management of an environment.

#### Skills

Amazon Web Services AWS AWS Certification AWS Cloud Cloud Certification DevOps

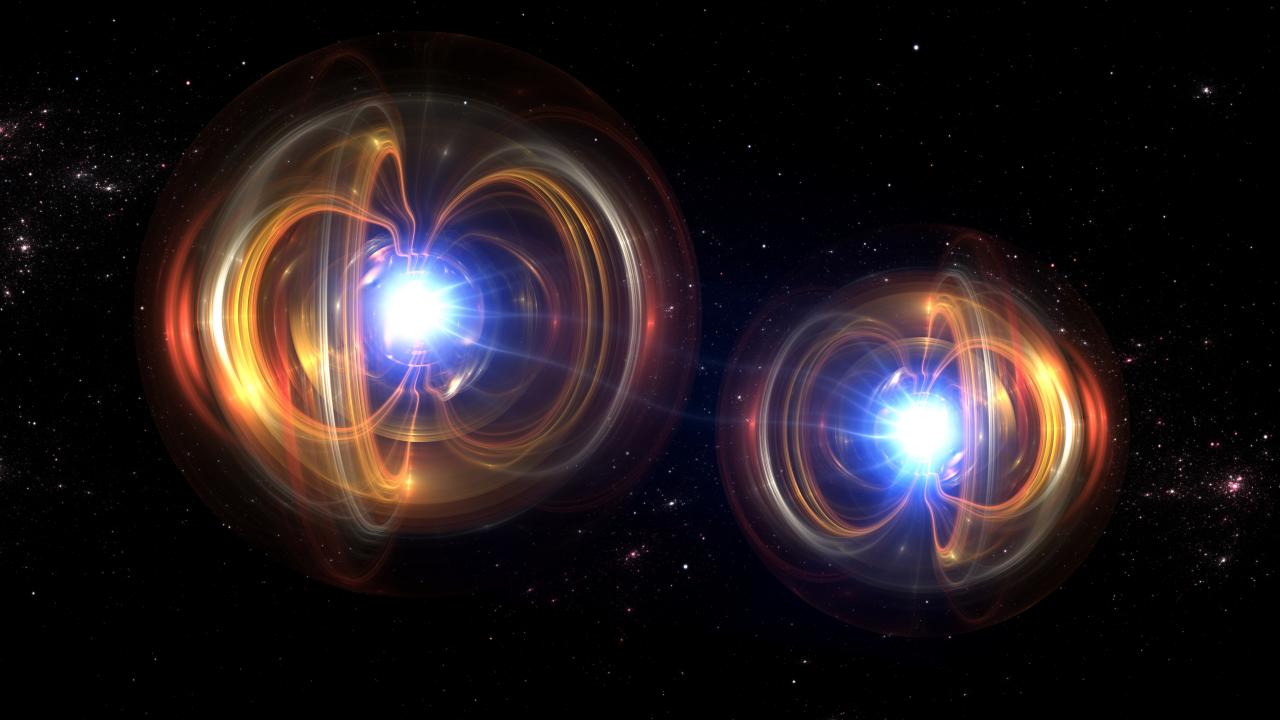
DevOps And Automation

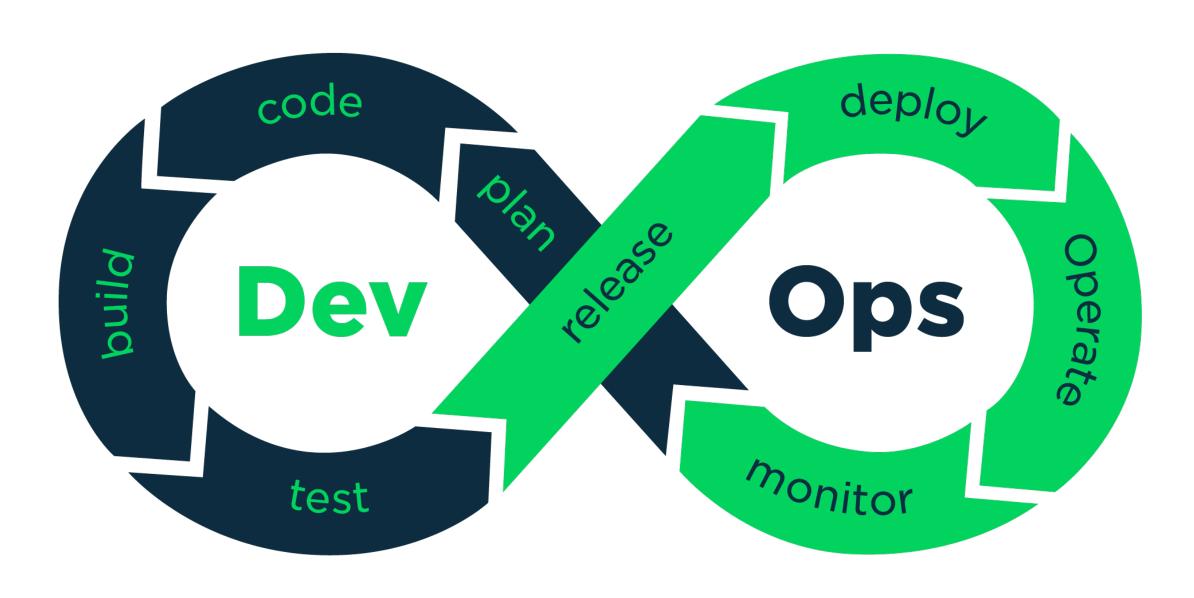
## **Earning Criteria**

Successfully passed the AWS Certified DevOps Engineer – Professional exam.

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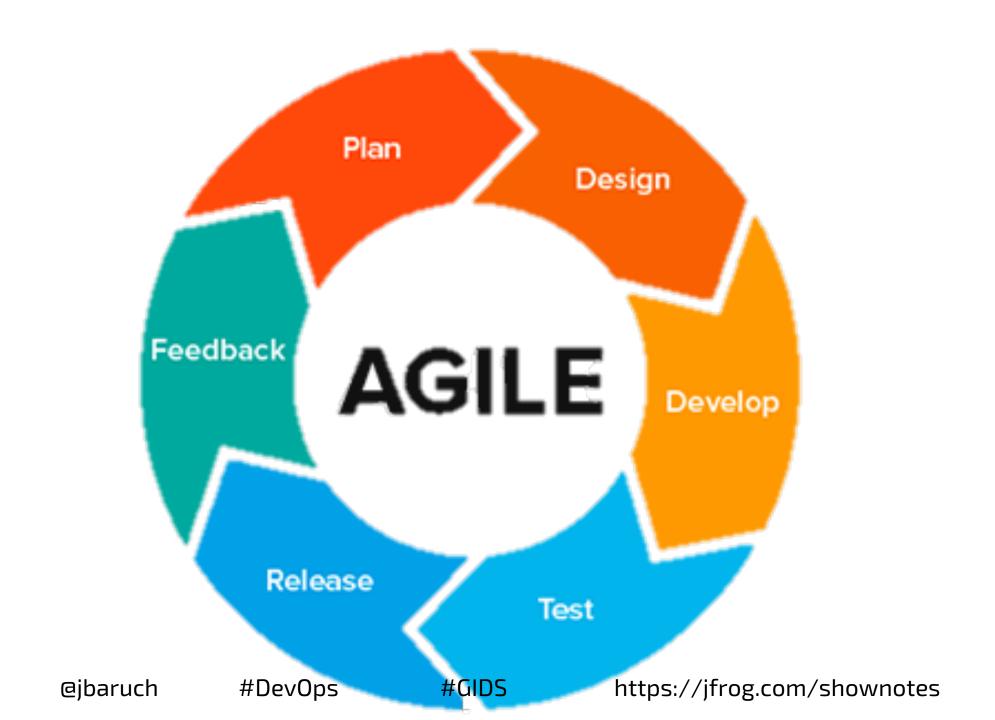


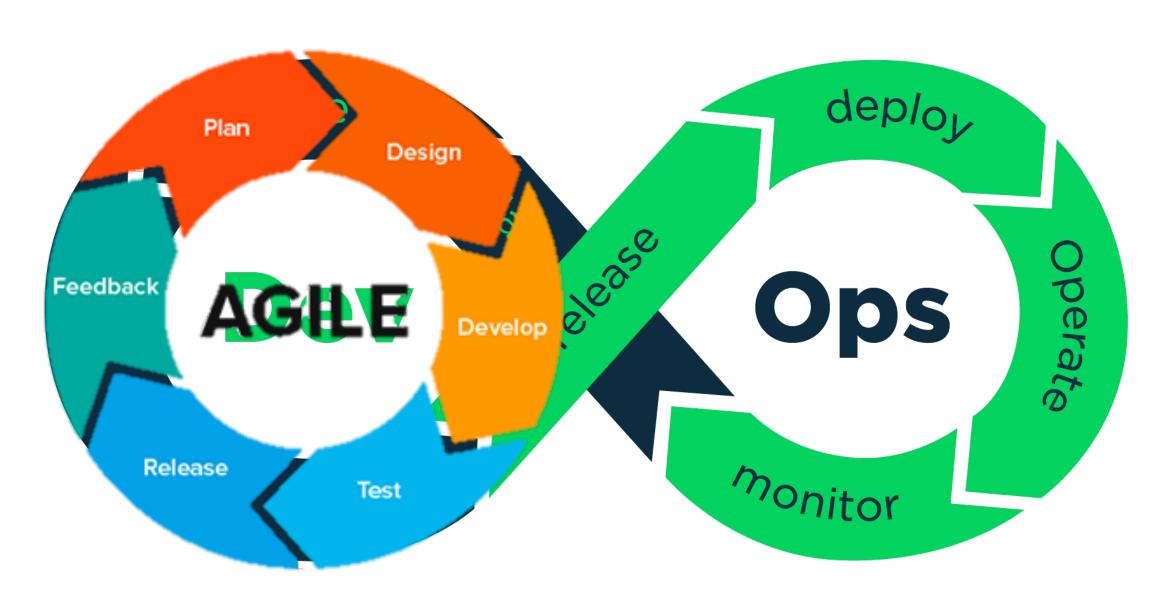
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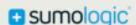


Diamond Sponsor













# **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)?

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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% <sup>b</sup>	5% <sup>b</sup>	10%
Working on defects identified by end users	10%	10% <sup>c</sup>	<b>10</b> % <sup>c</sup>	20%
Customer support work	5%	10%	10%	15%

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Planned Work

Business projects or new features

Planned Work

Business projects or new features

Internal Projects Server migrations, software updates and so on

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

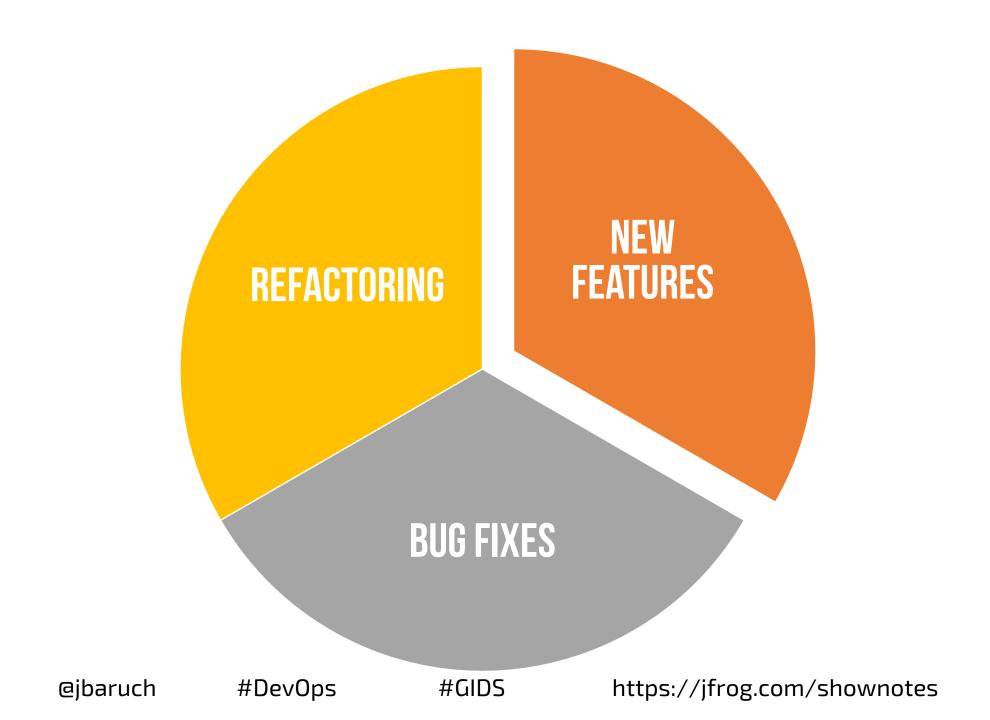
Planned Work Business projects or new features
Internal Projects Server migrations, software updates and so on
Changes Driven by feedback on completed work
Unplanned Work Support escalations and emergency outages

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# 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.



# 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, understanable
- ✓ Our code is easy to deploy
- ✓ Non-functional requirements are met
- ✓ We didn't incur any technical dept (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



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TRACTORMEN, IMPROVE THE QUALITY OF TRACTOR-TRAILER TRACKING!

# **May Back Machine**

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×

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# 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

### Personal Lending

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

# Business

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

### Insurance & Investing

- ▶ Insurance
- ▶ Investing
- ▶ Retirement Planning

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

GO

MORTGAGE RATES
ARE STILL AT
HISTORIC LOWS

### Tell me about...

Chase Exclusives<sup>SM</sup>
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.

# 12 HOURS MAINTENANCE FOR UPDATE (TO ENSURE QUALITY)

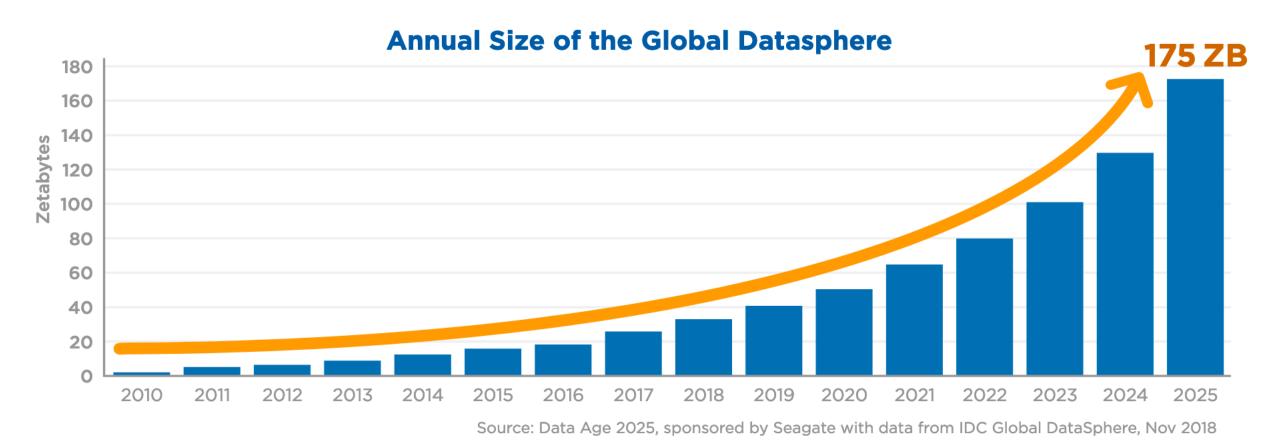


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# **CODE QUALITY IS NOT ENOUGH**



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PRODUCTION STEAMS ITS WAY TO THE DEVELOPERS!



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- ✓ 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



Presents:

# SRE vs DevOps



Seth Vargo @sethvargo



Liz Fong-Jones @lizthegrey

# 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

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- ✓ Our code is observable
- ✓ Our code supports feature flags
- ✓ Our code backwards and forwards compatible
- ✓ Our code emits event streams
- ✓ Our code is lean

1\Save/

Summary		USD
AWS Service Charges		100-100-00
		+ Expand All
Details		
AWS Service Charges		in the same
→ 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	1000
▶ 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

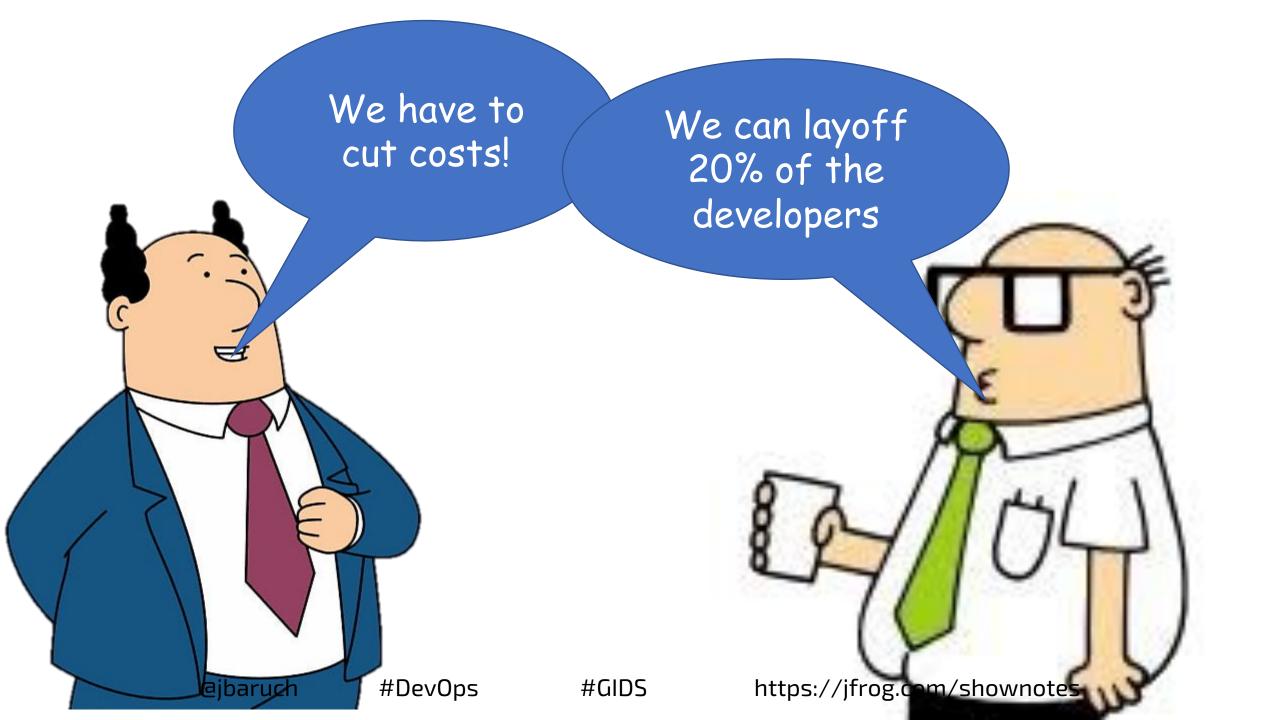
Session Level: Intermediate

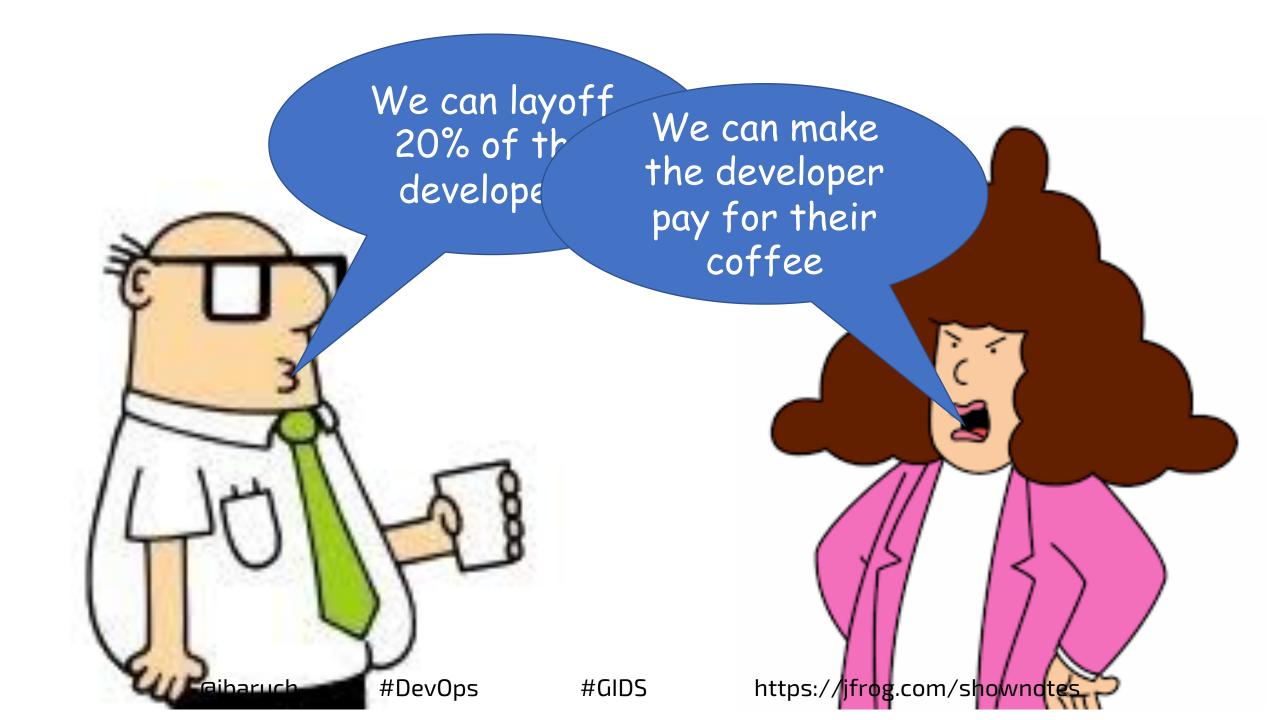
October 1, 2019, 11:25 am - 12:05 pm, Core Kafka,

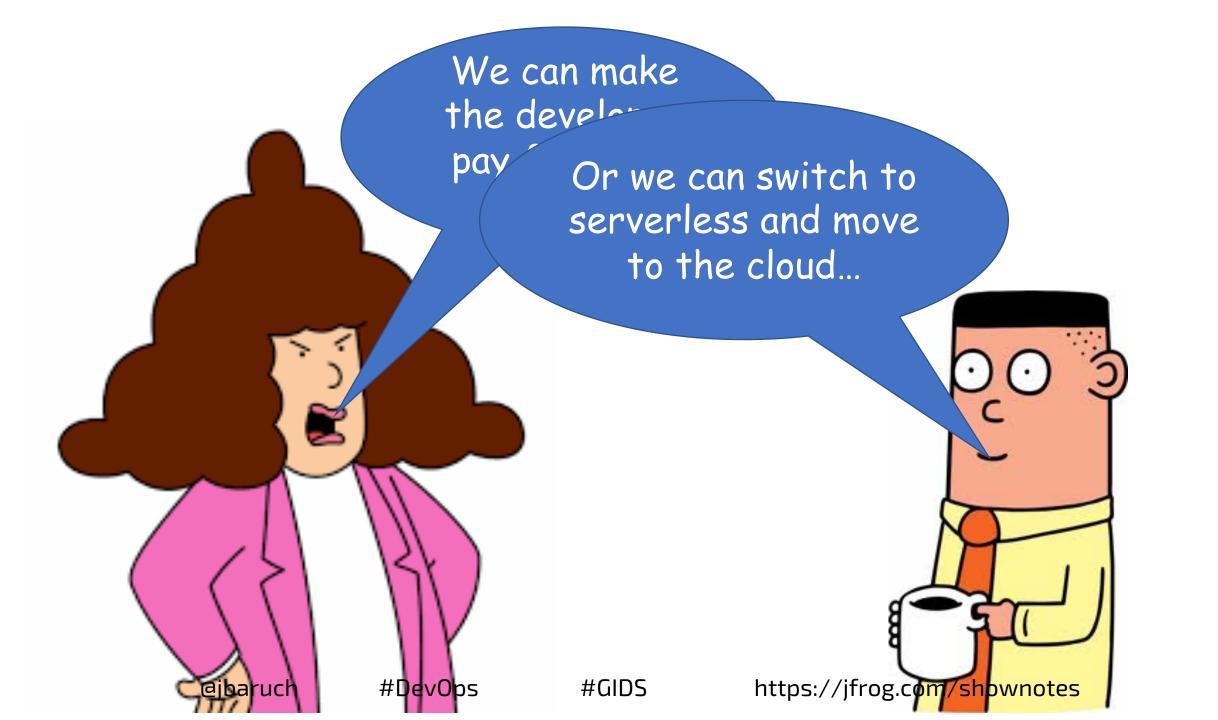


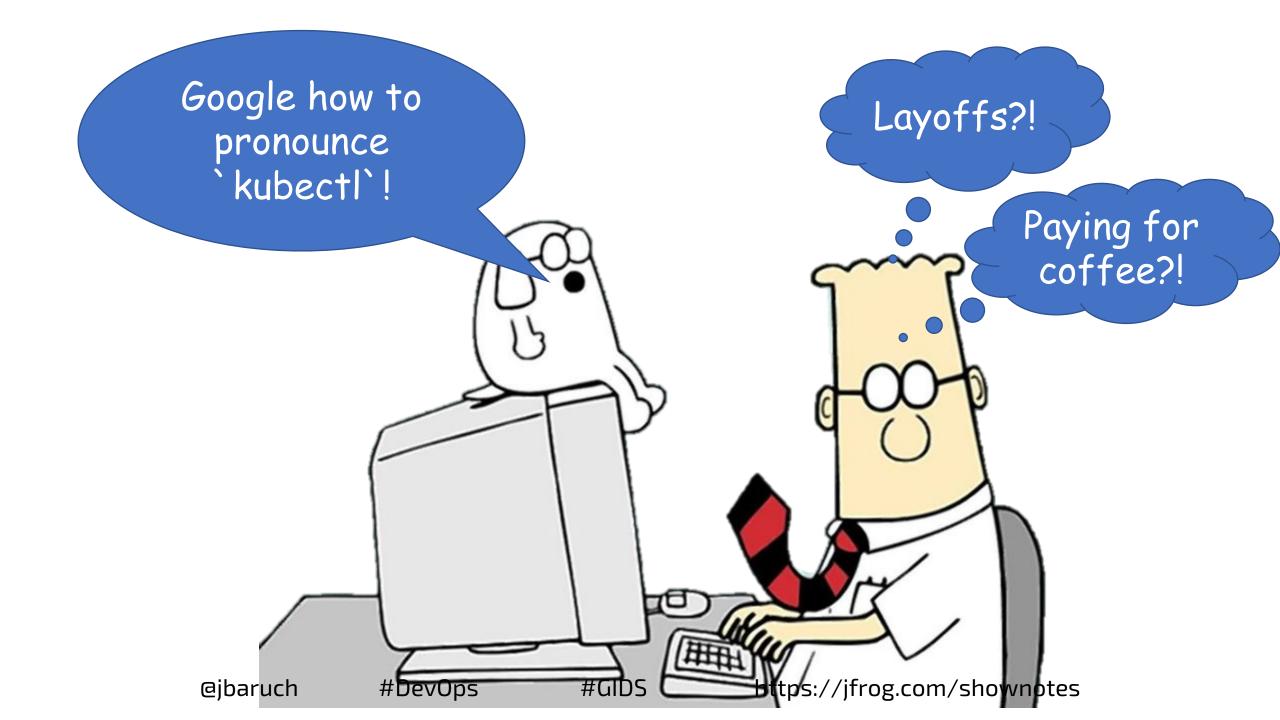


BUSINESS STEAMS ITS WAY TO THE DEVELOPERS!











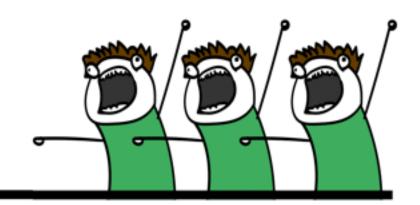
# WHAT DO WE WANT



# WHEN DO WE THEMP



# NEW FEATURES!



YESTERDAYI



#### **ELITE PERFORMERS**

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



106
TIMES FASTER
lead time from

commit to deploy



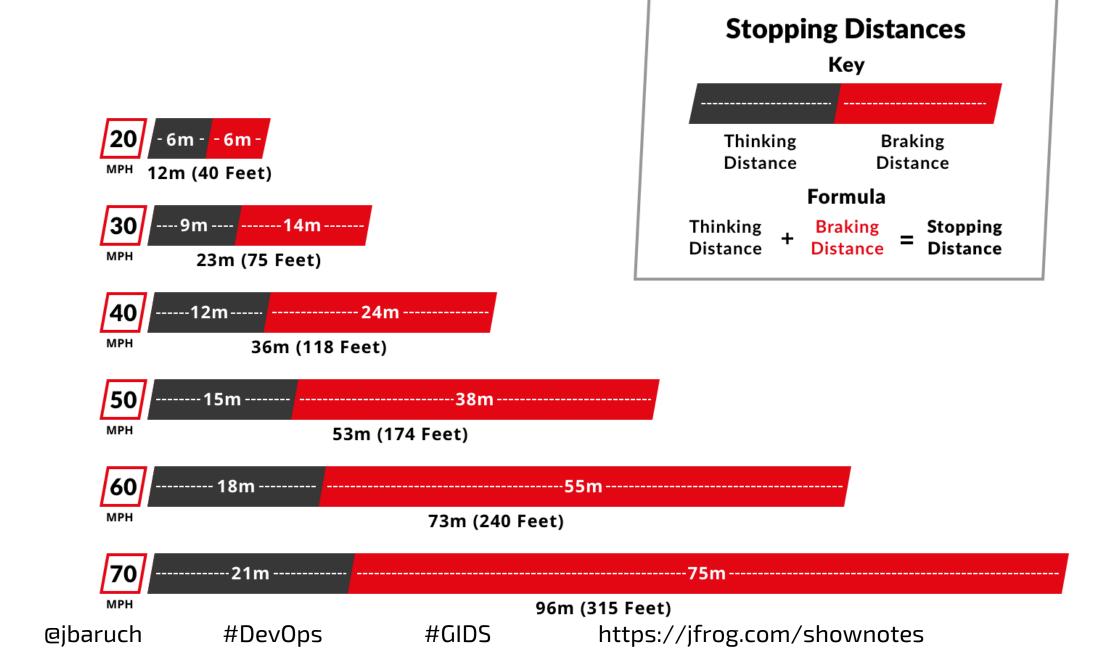


TIMES LOWER

change failure rate (changes are 1/7 as likely to fail)





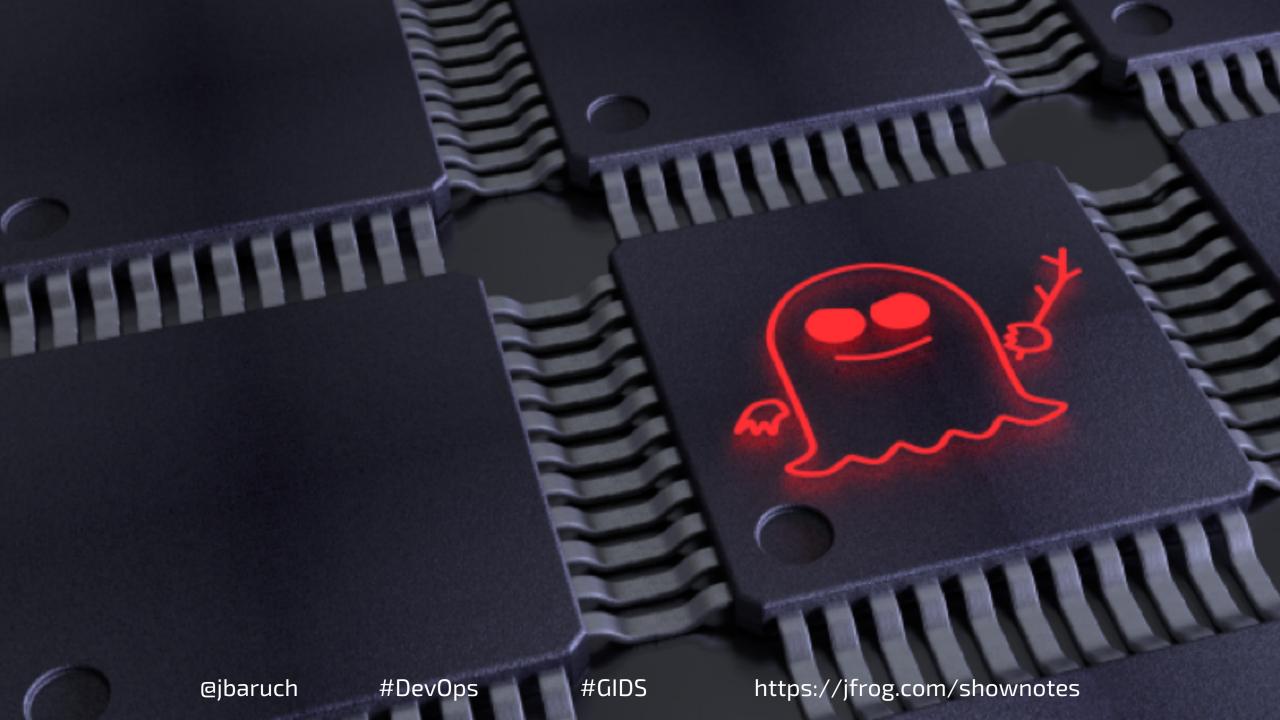




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# Chips may be inherently vulnerable to Spectre and Meltdown attacks

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...



106
TIMES FASTER
lead time from

commit to deploy

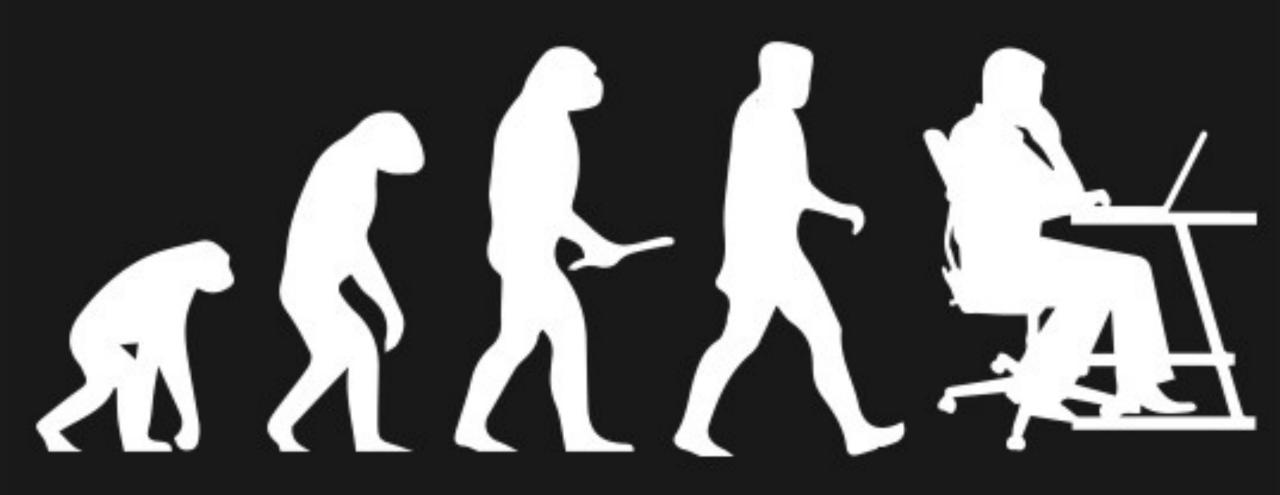




TIMES LOWER

change failure rate (changes are 1/7 as likely to fail)





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#DevOps

#GIDS

## **DEVOPS IS A MEAN TO AN END**



Quality



Lean software

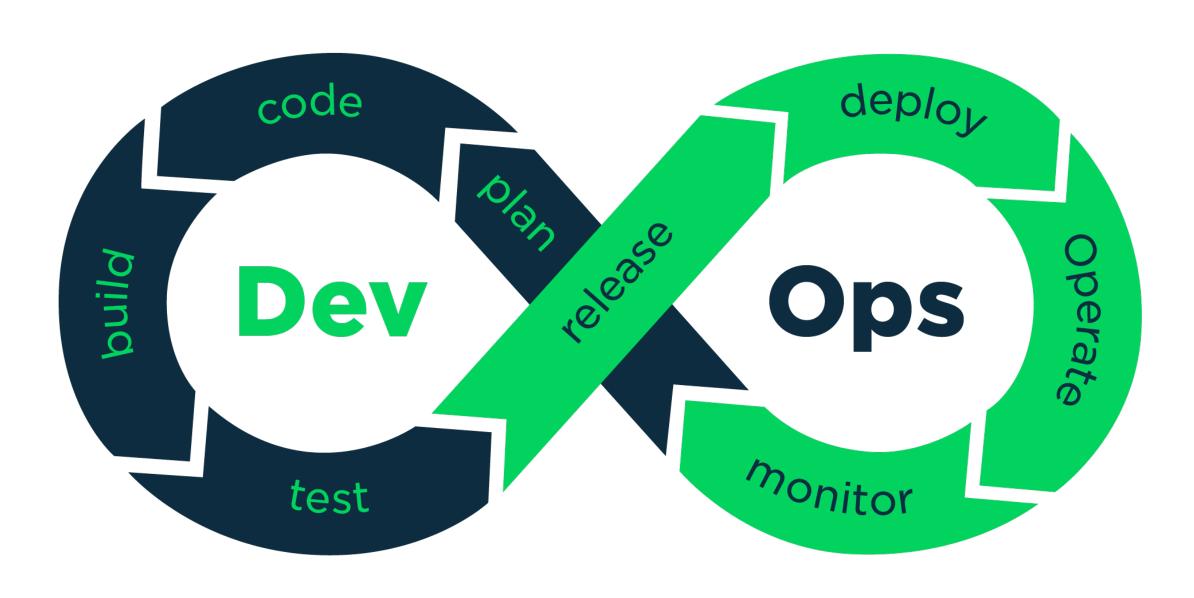


**New Features** 



Security

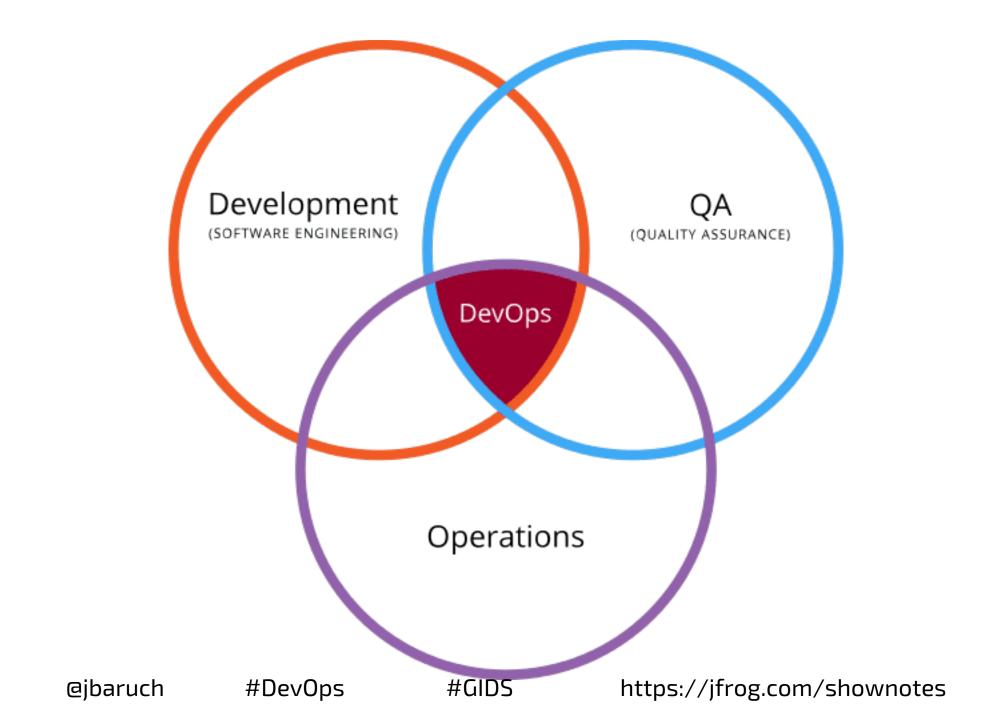




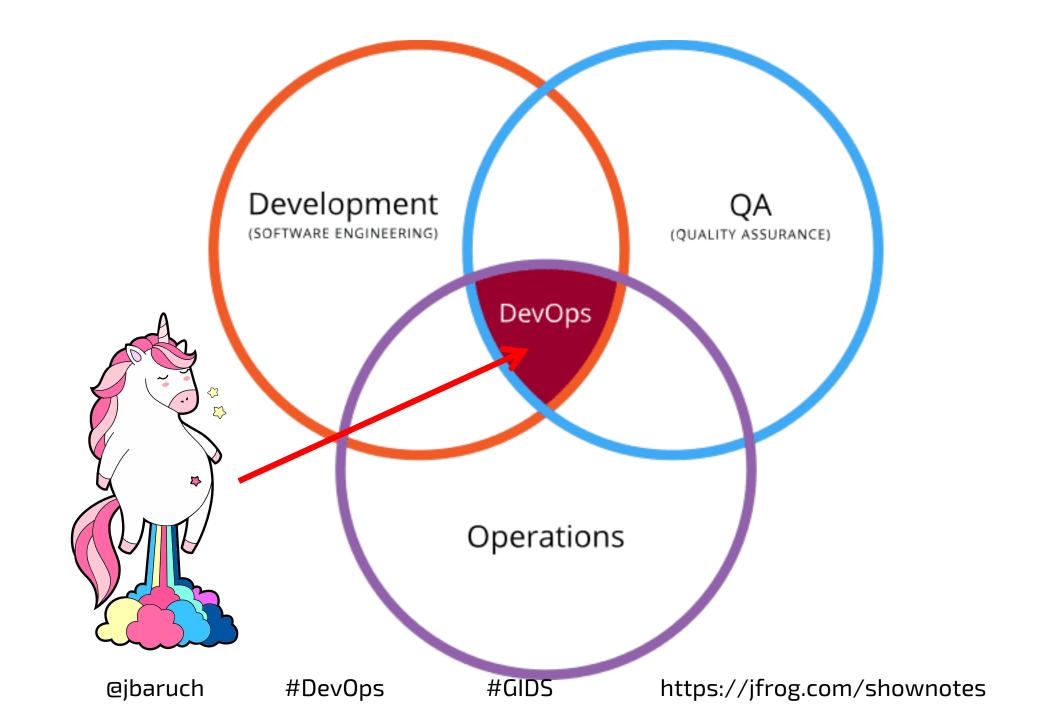
@jbaruch

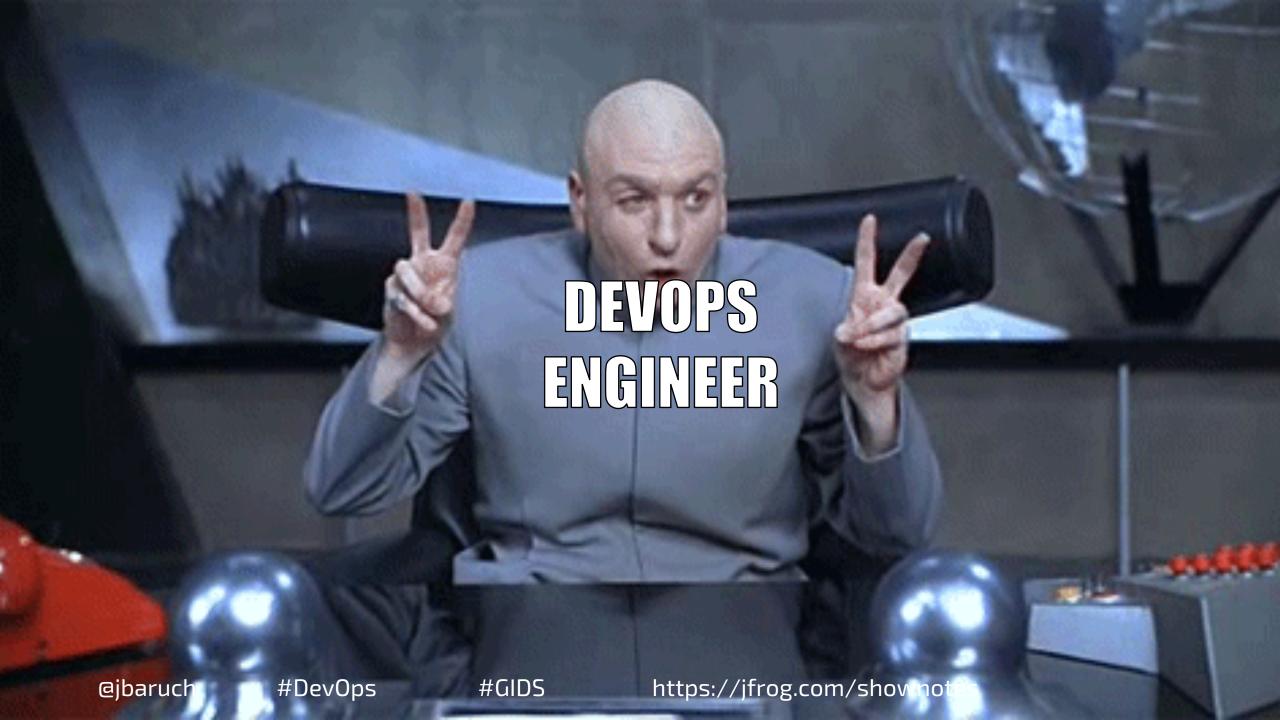
#DevOps

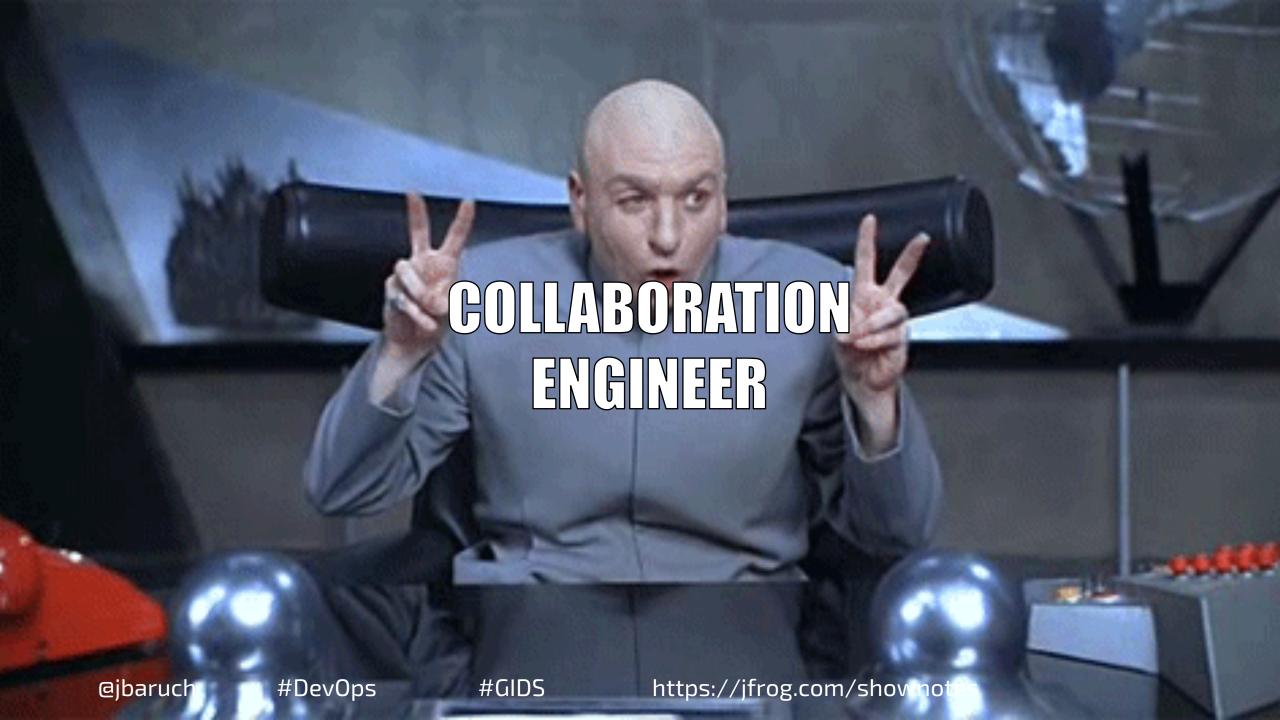
#GIDS

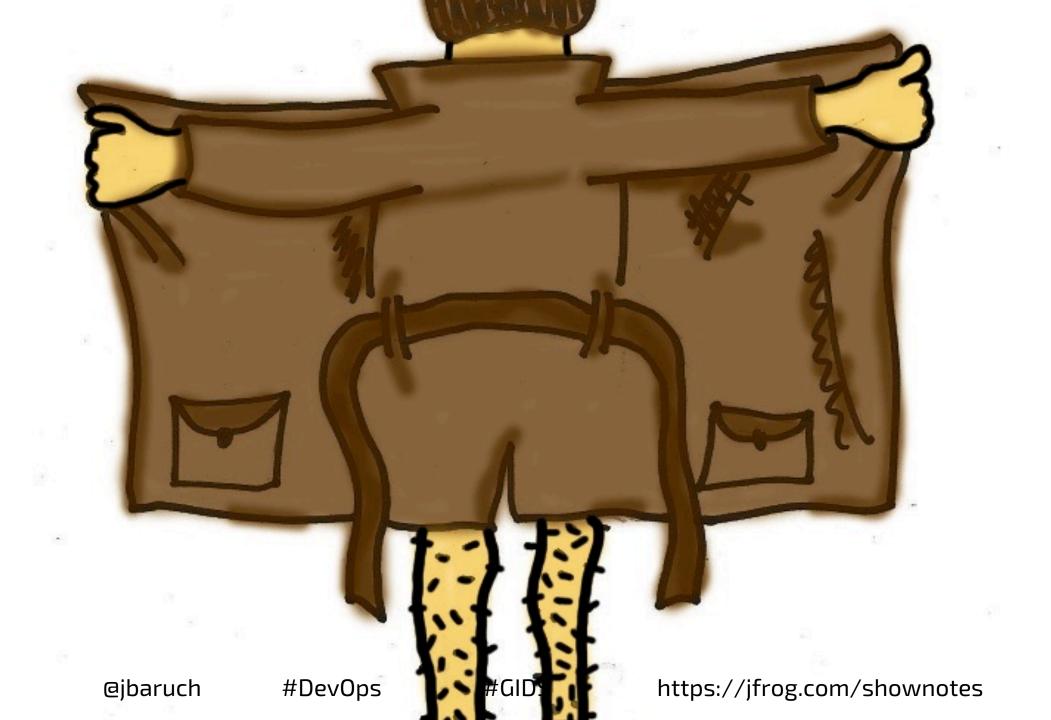














Pivotal

Goodle Cloud

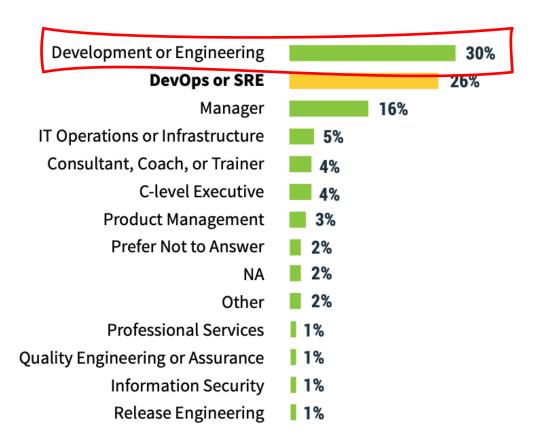
Deloitte. S

sumo logic 🙀 re



## **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.)

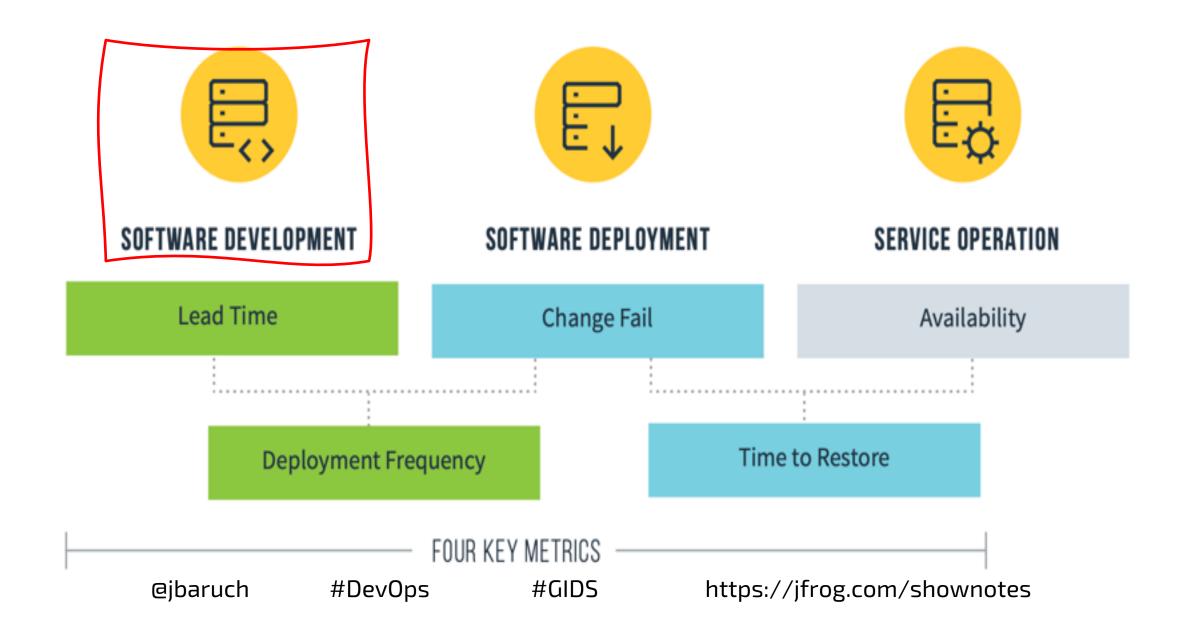


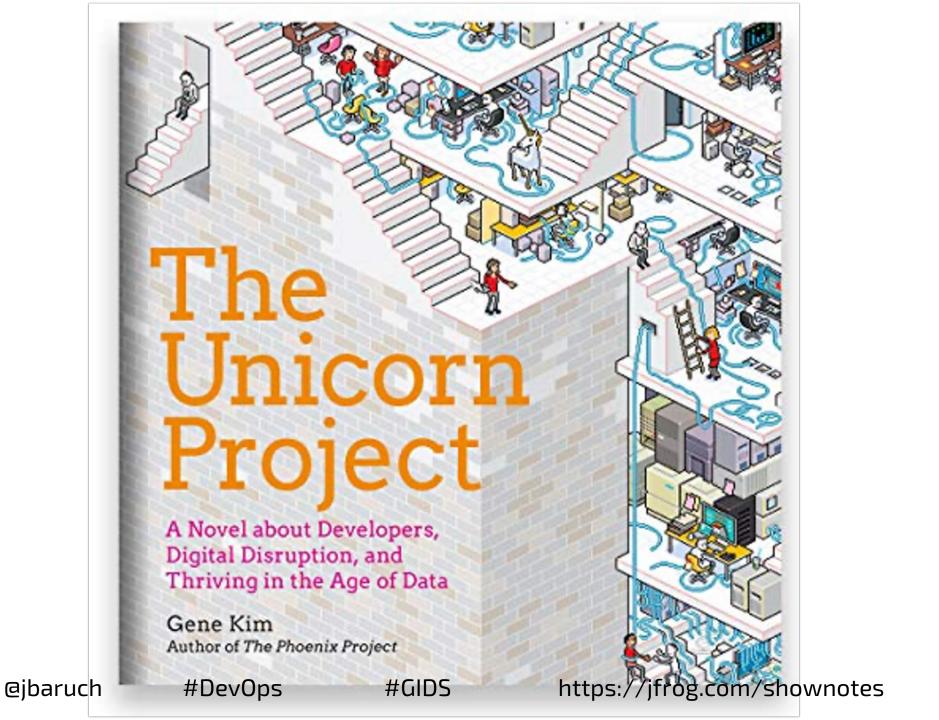
@jbaruch

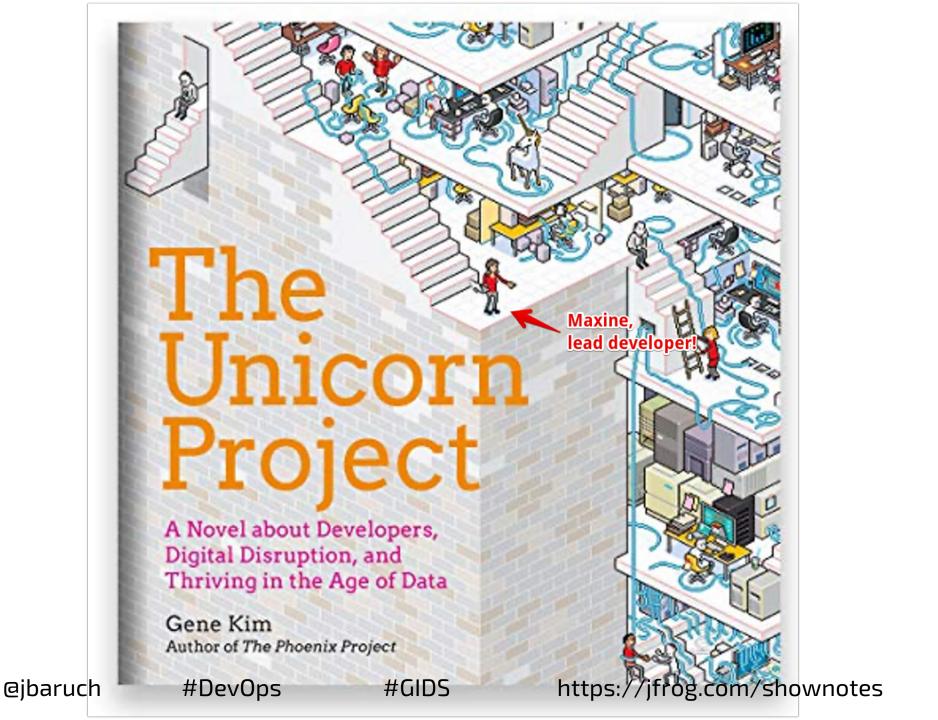
#DevOps

#GIDS

### PERFORMANCE METRICS







## 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.

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- √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!





## TWITTER ADS AND Q&A

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