

NIKO KÖBLER (@DASNIKO)

SERVERLESS - EARLY LESSONS LEARNED



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Doing stuff with computers, serverless in the Cloud... mostly
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<https://www.jug-da.de>
@JUG_DA



serverlessbuch.de
[@serverlessbuch](https://twitter.com/serverlessbuch)

#SERVERLESS



SO HOT RIGHT NOW!



aws lambda
Suchbegriff

azure functions
Suchbegriff

google cloud functi...
Suchbegriff

ibm openwhisk
Suchbegriff

serverless
Suchbegriff

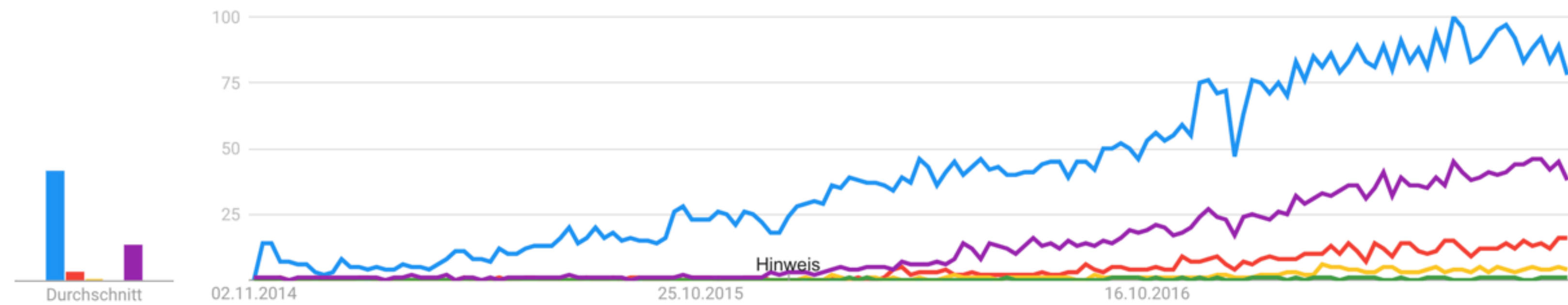
Weltweit

01.11.14 bis 20.09.17

Alle Kategorien

Websuche

Interesse im zeitlichen Verlauf

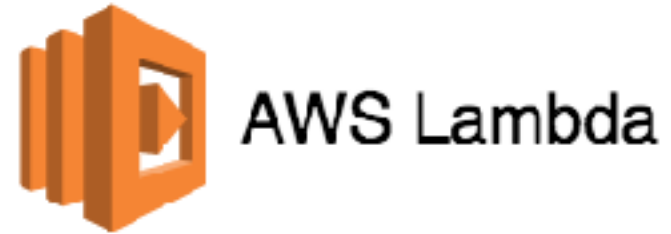


SERVERLESS COMPUTE MANIFESTO

- ▶ Functions are the unit of deployment and scaling.
- ▶ No machines, VMs or containers visible in the programming model.
- ▶ Permanent storage lives elsewhere.
- ▶ Scales per request: User cannot over- or under-provision capacity.
- ▶ Never pay for idle (no cold servers/containers or their costs).
- ▶ Implicitly fault-tolerant because functions can run anywhere.
- ▶ BYOC - Bring Your Own Code.
- ▶ Metrics and logging are a universal Right.

SERVERLESS BUILDING BLOCKS

Compute



Storage



Database



API Proxy



Messaging & Queues



Analytics



Orchestration & State Management



Monitoring & Debugging



Edge Computing



ENVIRONMENT

PUBLIC AMAZON LINUX AMI

NO WINDOWS!?

PROGRAMMING MODEL

STARTING OWN PROCESSES

PROGRAMMING MODEL

JAVASCRIPT

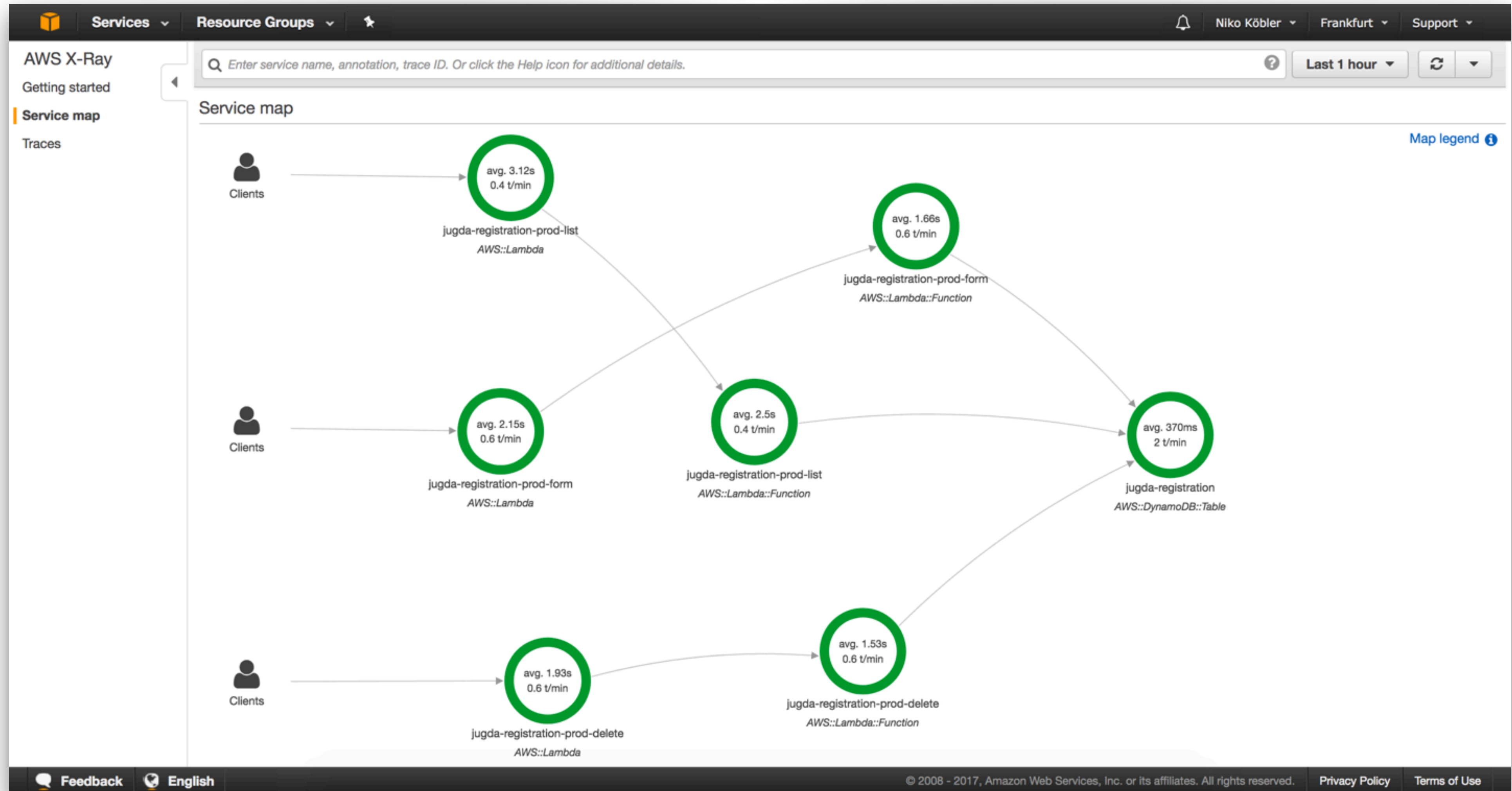
CALL STACK & EVENT LOOP

```
context.callbackWaitsForEmptyEventLoop
```

ERROR HANDLING

DEAD LETTER QUEUES

AWS X-RAY



LATENCY

COLD START LATENCY
TIMEOUT LIMIT

LATENCY

MEMORY SETTINGS (RAM)

HAS IMPACTS ON

CPU- & NETWORK-PERFORMANCE

CACHING

CONTAINERS

OBJECTS

SECURITY

IAM ROLES & POLICIES

NETWORK (VPC)

DEVOPS

SERVERLESS IS **NOT** NO-OPS!

NO OPS COST != NO COST OF OWNERSHIP!

YOU ARE STILL **RESPONSIBLE** FOR THE (END) RESULTS

KEEP DEVOPS IN MIND!

PAAS

SERVERLESS IS A SPECIAL KIND OF PAAS!



adrian cockcroft

@adrianco

Folge ich



If your PaaS can efficiently start instances in 20ms that run for half a second, then call it serverless.

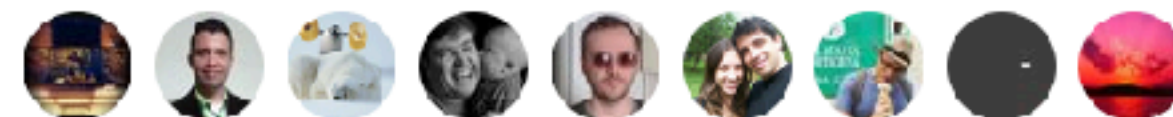
Julz Friedman @doctor_julz

if you think serverless is different than PaaS then either you or I have misunderstood what "serverless" or "PaaS" means

Original (Englisch) übersetzen

15:43 - 28. Mai 2016

168 Retweets 221 „Gefällt mir“-Angaben



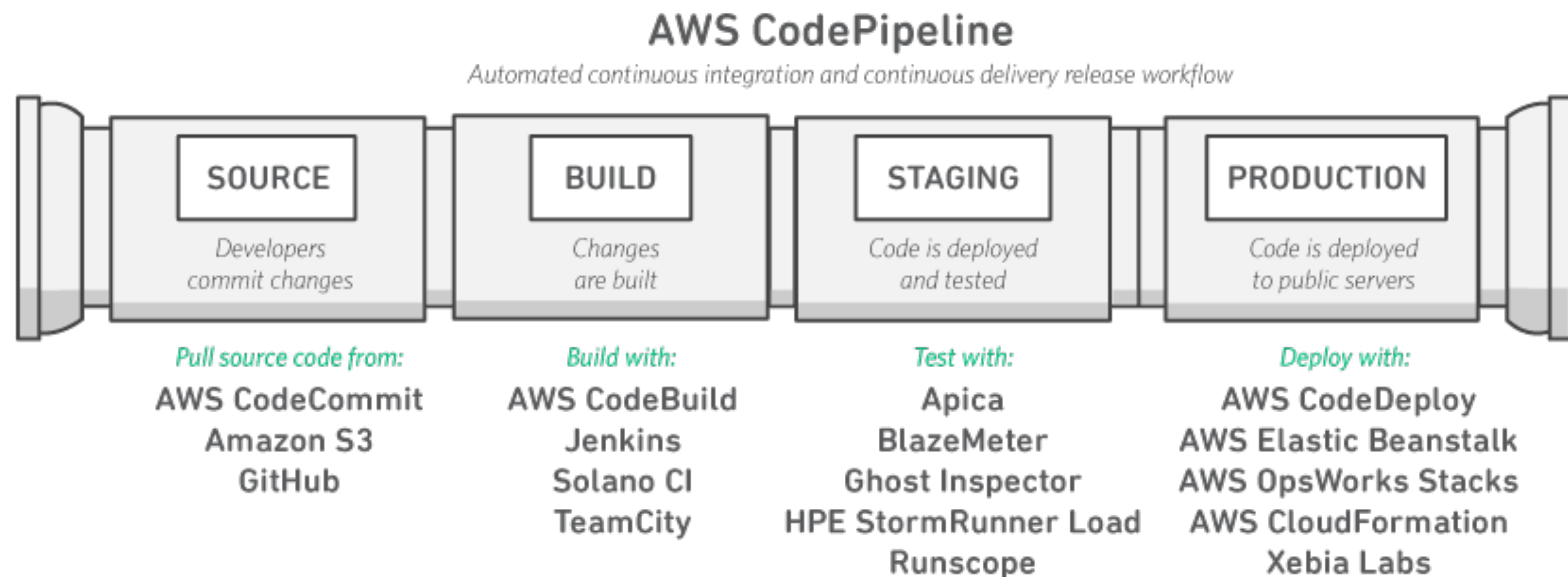
<https://twitter.com/adrianco/status/736553530689998848>

TESTING

LOCAL *VS.* CLOUD

AWS SAM Local, LocalStack

BUILD & DEPLOYMENT



(from: <https://aws.amazon.com/de/codepipeline/>)

BUILD & DEPLOYMENT

TOOLCHAINS

AWS CloudFormation / SAM

AWS CodeBuild / CodeDeploy / CodePipeline

Serverless Framework

Terraform

MIGRATION TO SERVERLESS

STEP-BY-STEP

SCALE TECH & (EDUCATE!) THE TEAM
(REMEMBER CONWAY...)

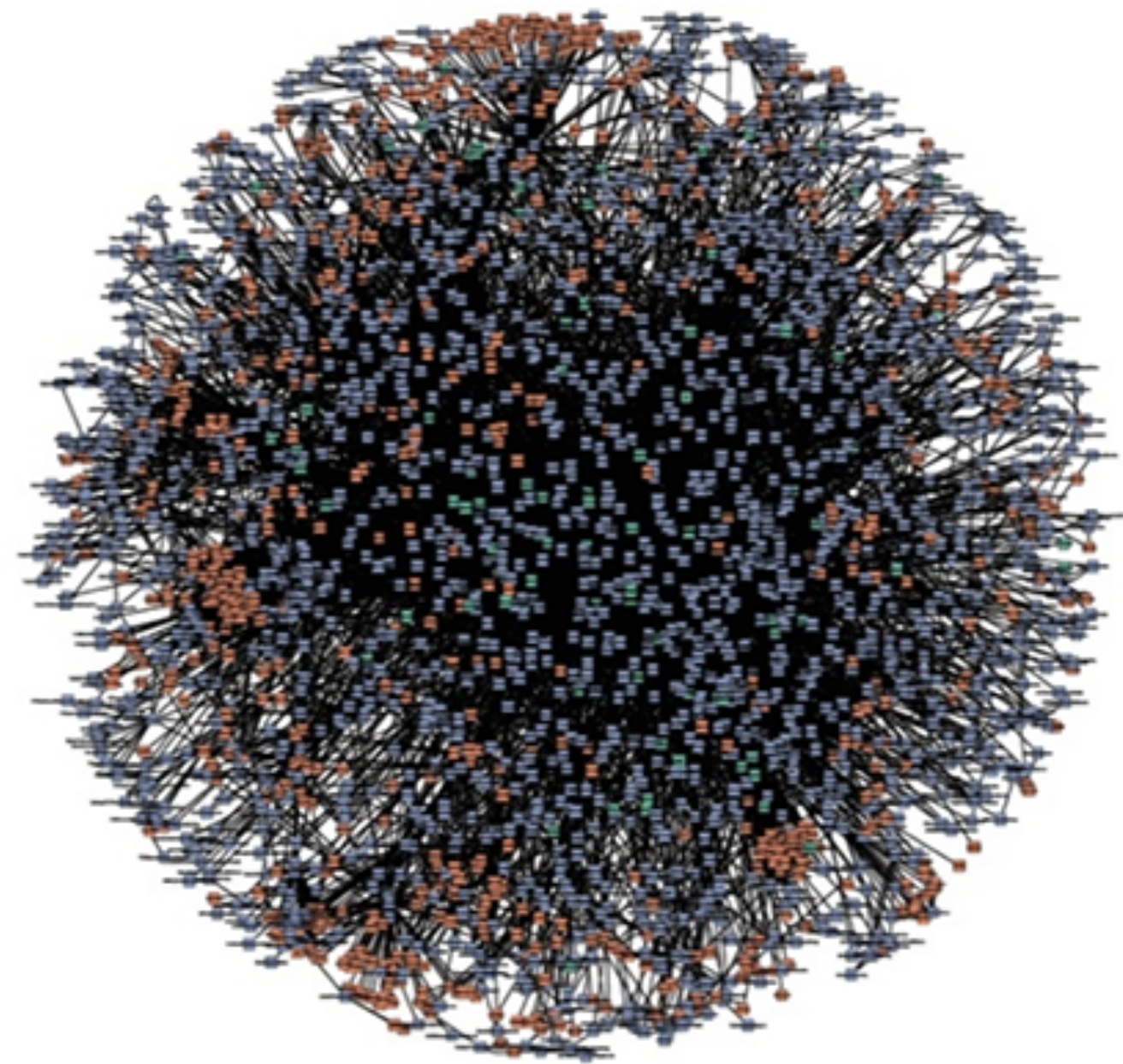
30 QUESTIONS TO ASK A SERVERLESS FANBOY:

[HTTP://WWW.IHEAVY.COM/2017/03/13/30-QUESTIONS-TO-ASK-A-SERVERLESS-FANBOY/](http://www.iheavy.com/2017/03/13/30-questions-to-ask-a-serverless-fanboy/)

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ONE FINAL REQUEST:

DON'T BUILD THE SERVERLESS MONOLITH!

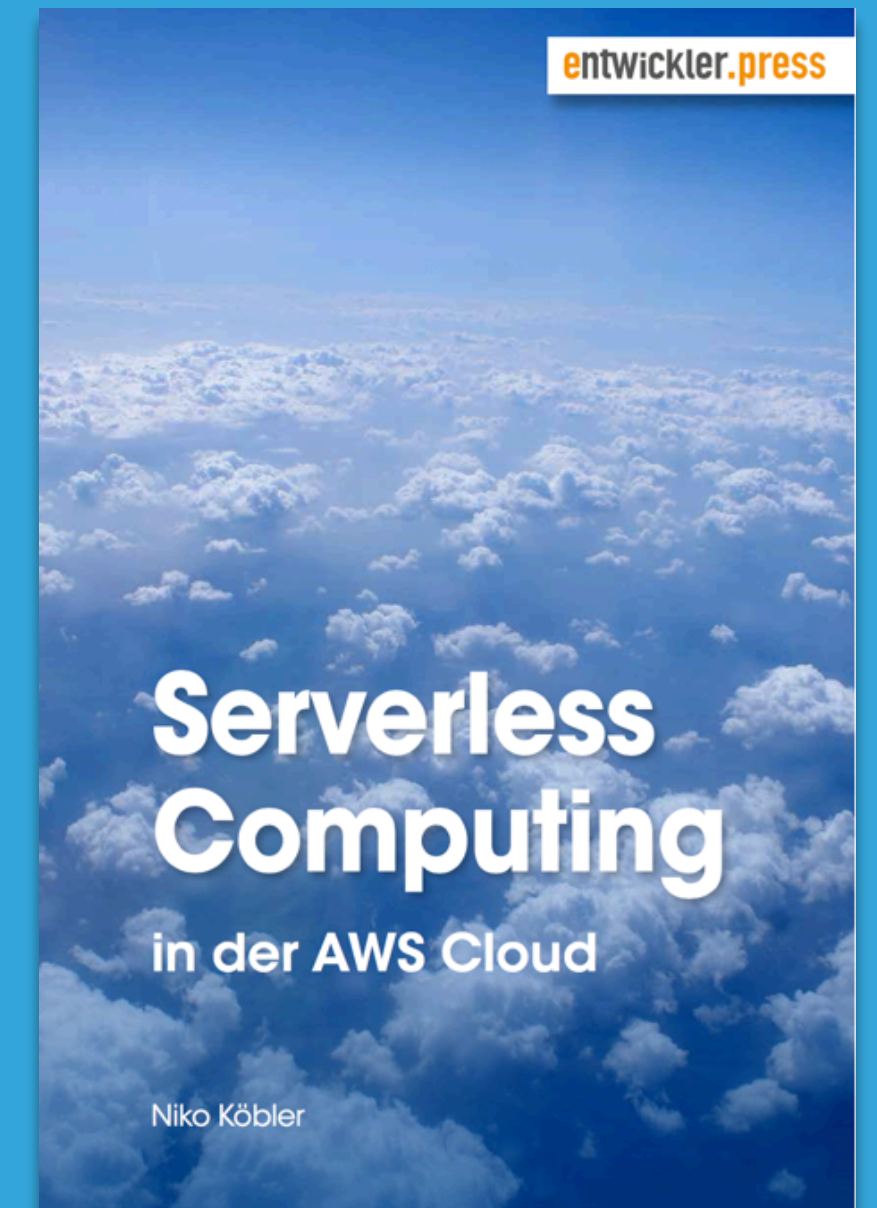


amazon.com



NETFLIX

**THANK YOU.
ANY QUESTIONS?**



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