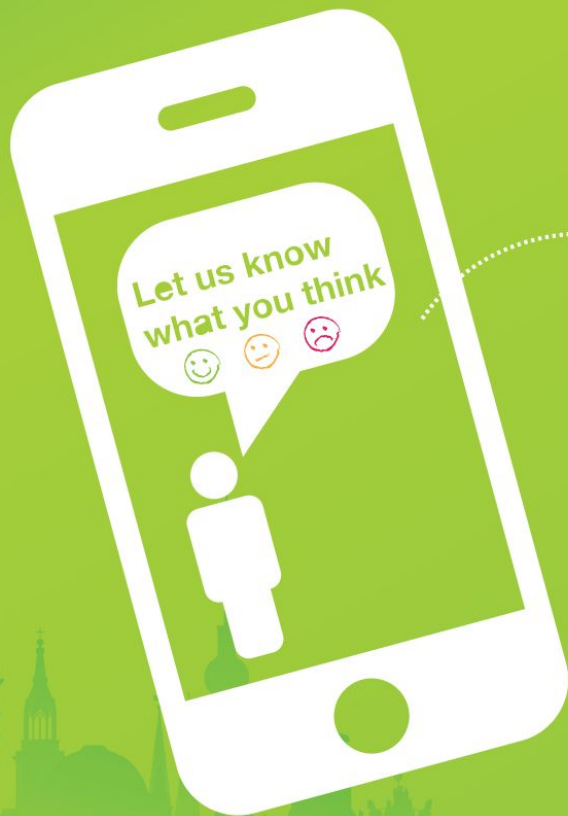




**Click 'engage'
to rate sessions
and ask questions**

Zalando's Open Source Infrastructure on AWS with Docker



bernd.herding@zalando.de

GOTO Con Berlin 2015, 2015-12-04

One of Europe's largest online Fashion Retailers

15 countries

3 fulfillment centers

17+ million active customers

2.2+ billion € revenue 2014

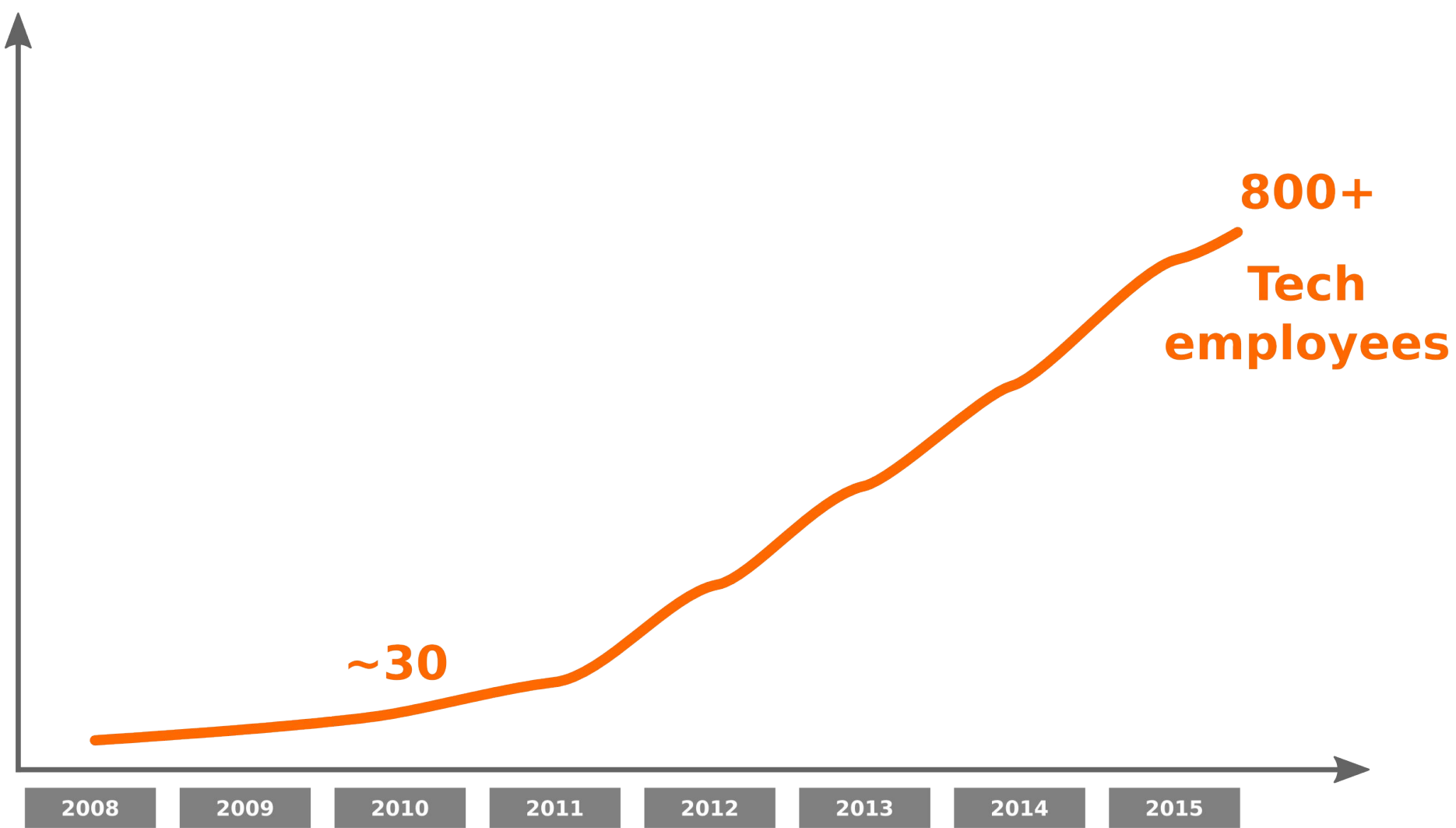
135+ million visits per month

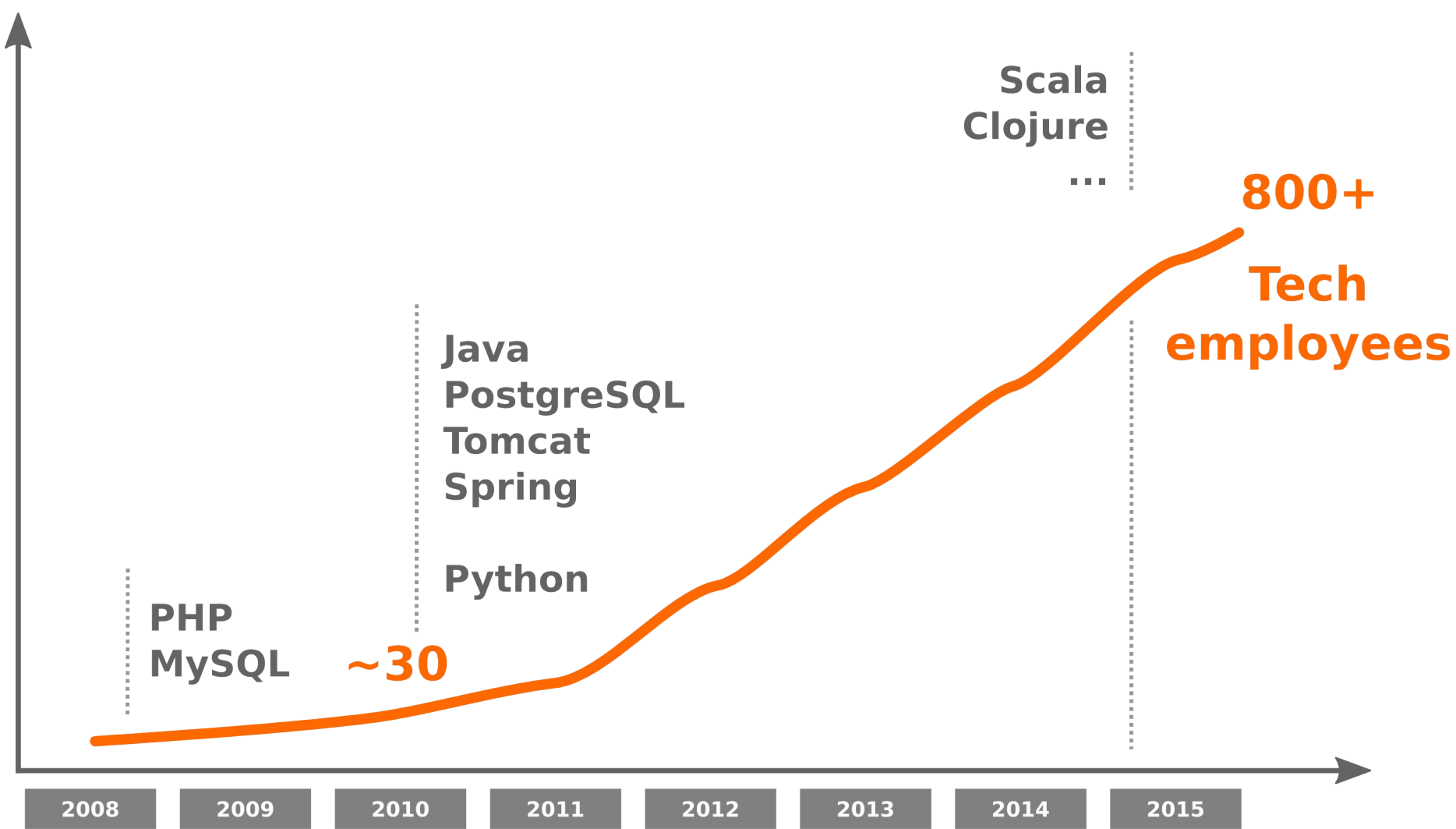
10.000+ employees in DE

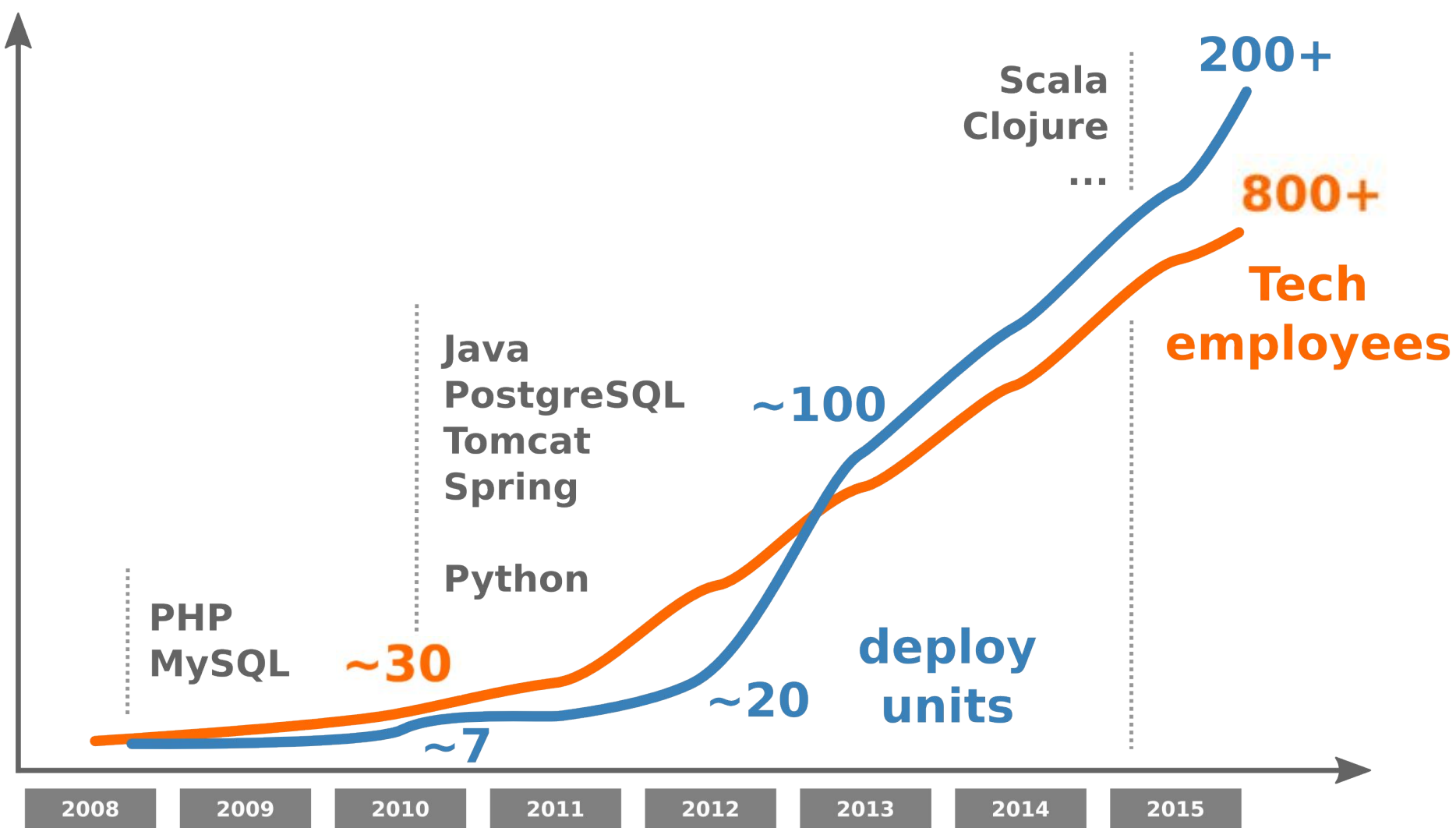




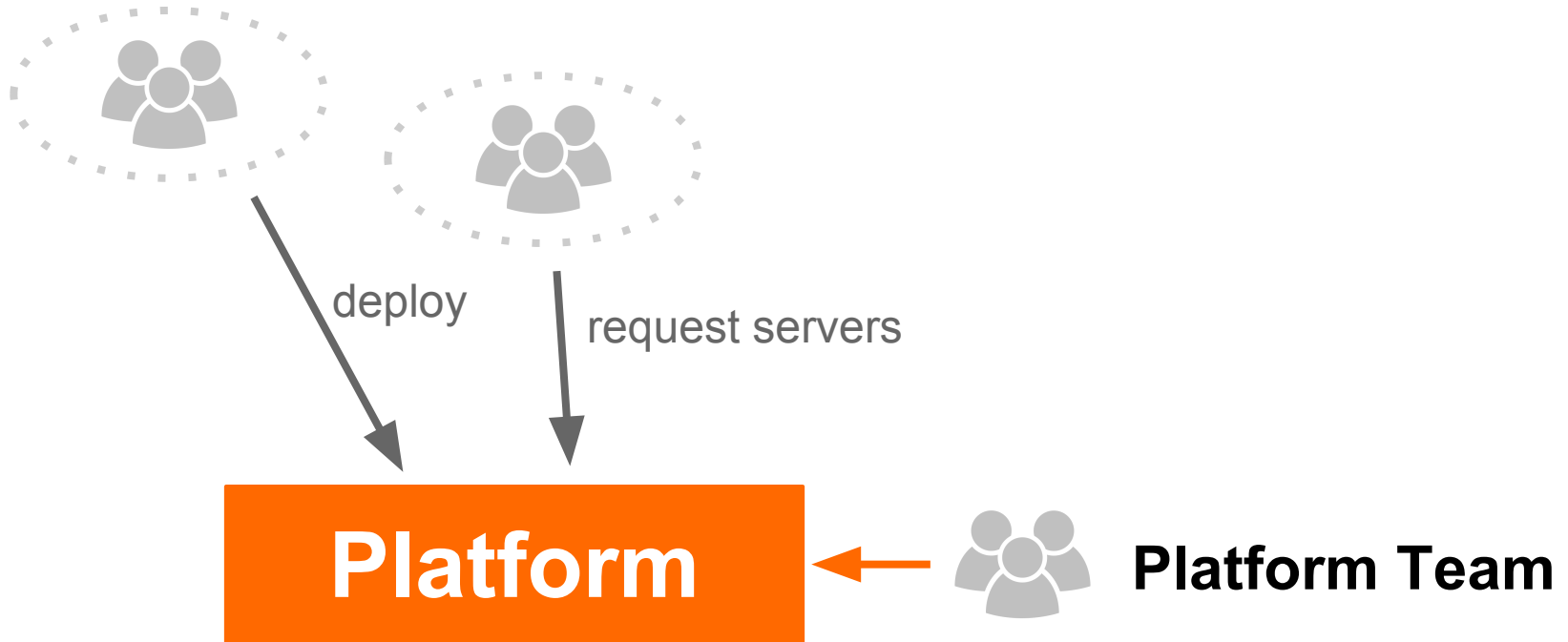
A BRIEF HISTORY ON ZALANDO TECHNOLOGY





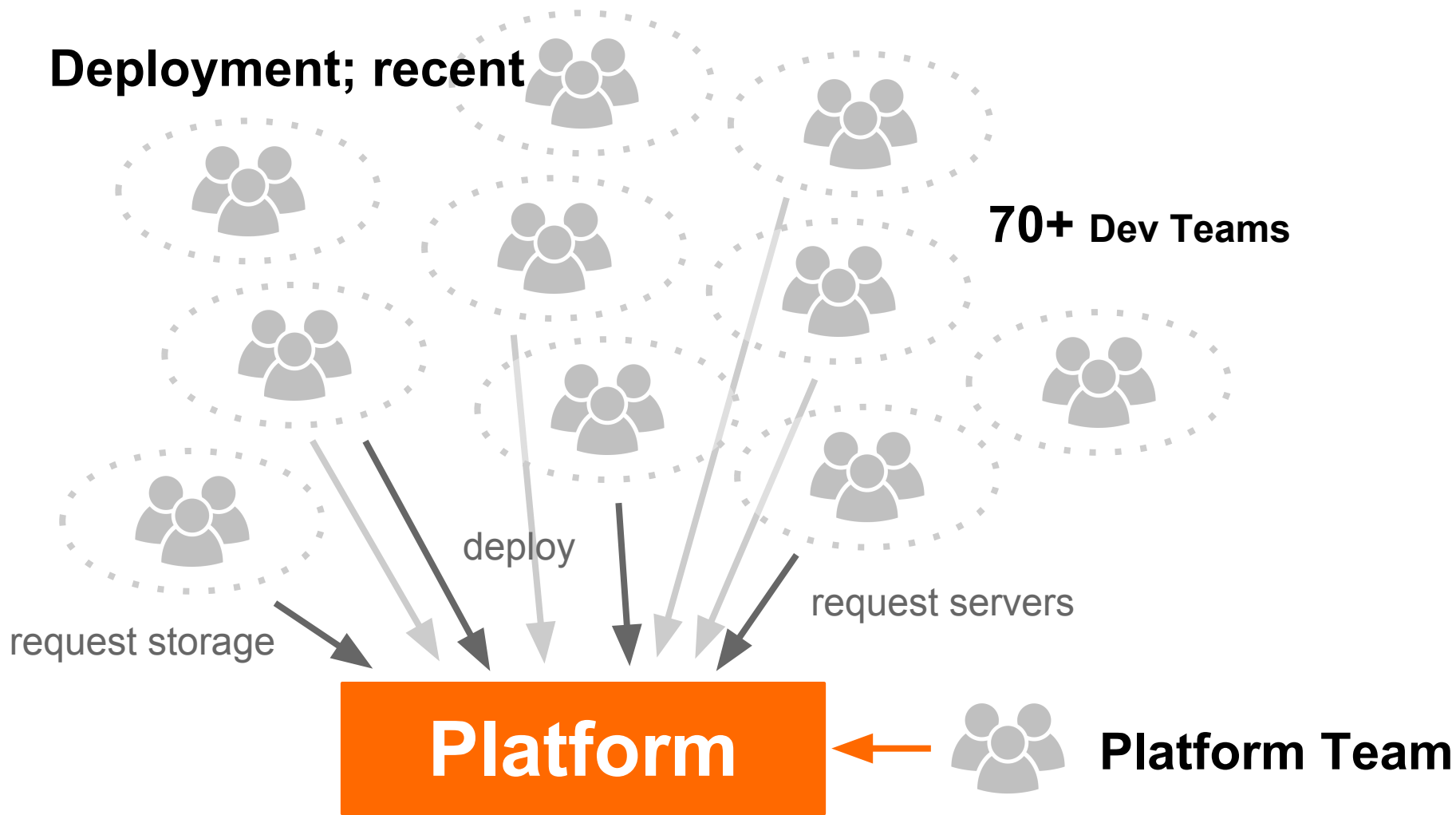


Deployment; ancient

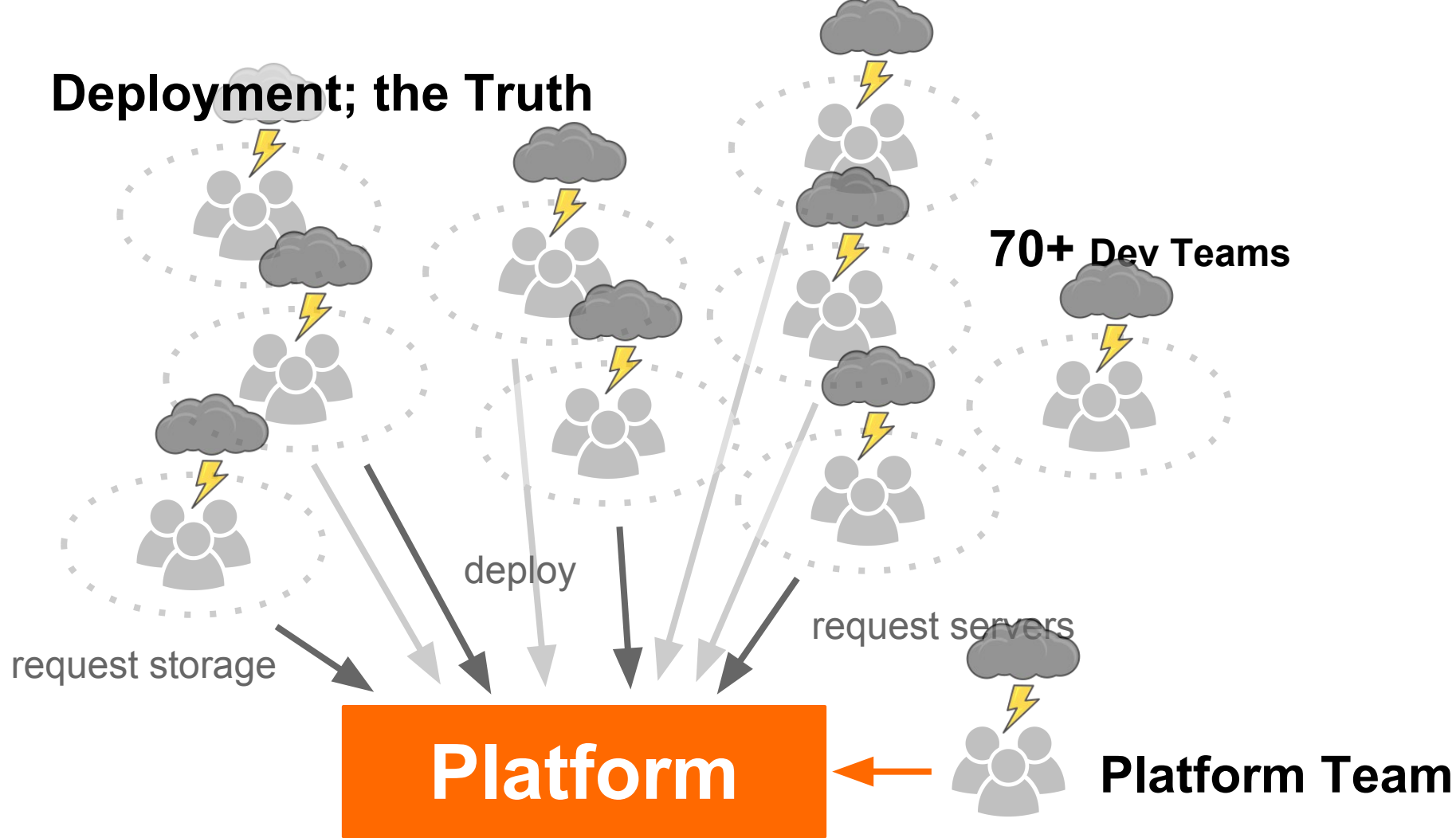


Deployment; recent

70+ Dev Teams



Deployment; the Truth





RADICAL AGILITY

AUTONOMY

MASTERY

PURPOSE

TRUST



Compliance

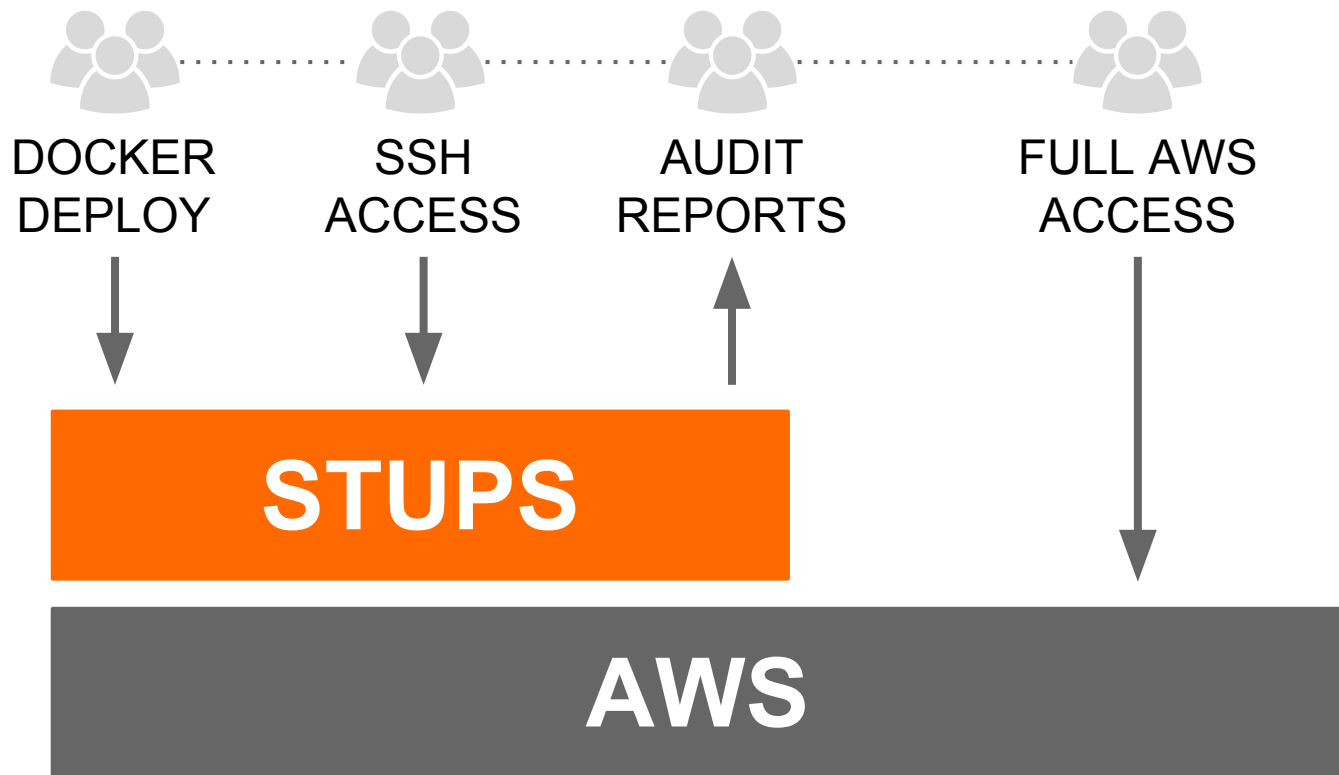
Innovation



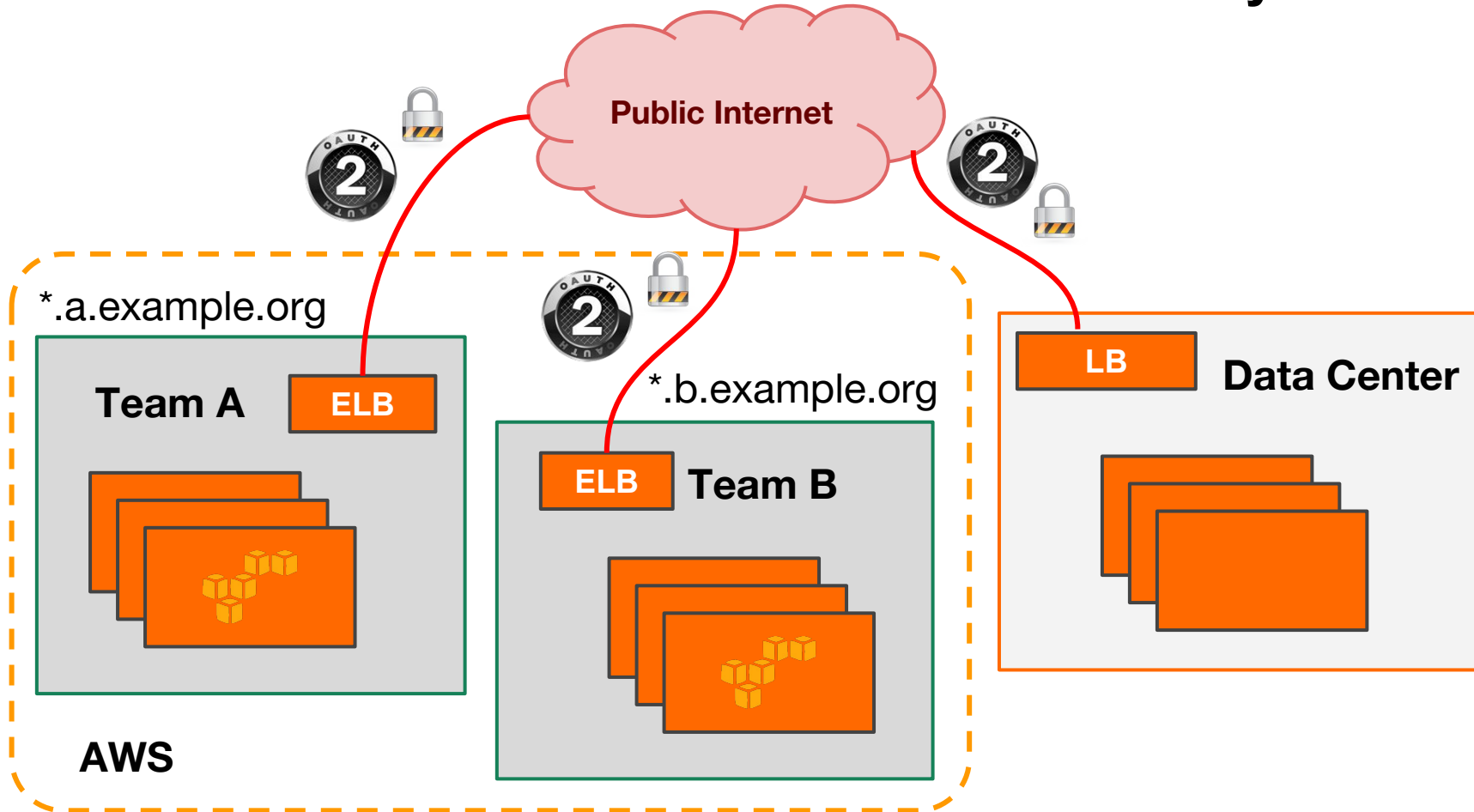
STUPS

To
Unleash
Penguin
Swarms

A Platform on Top of Amazon Web Services



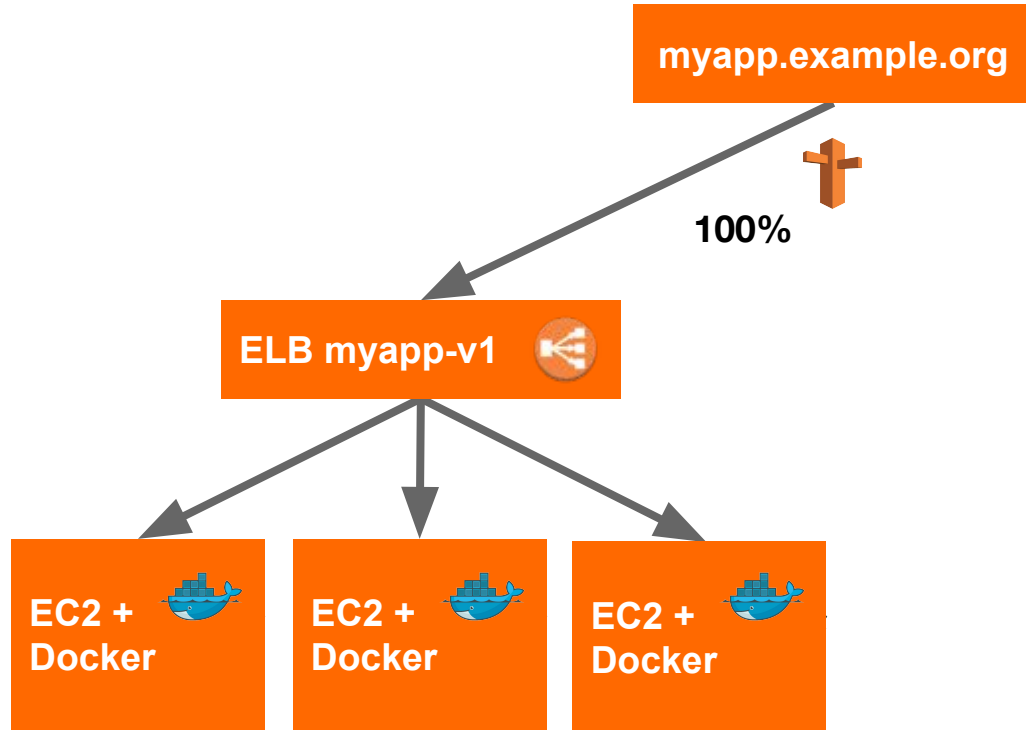
Isolated AWS Accounts & OAUTH 2.0 & Security



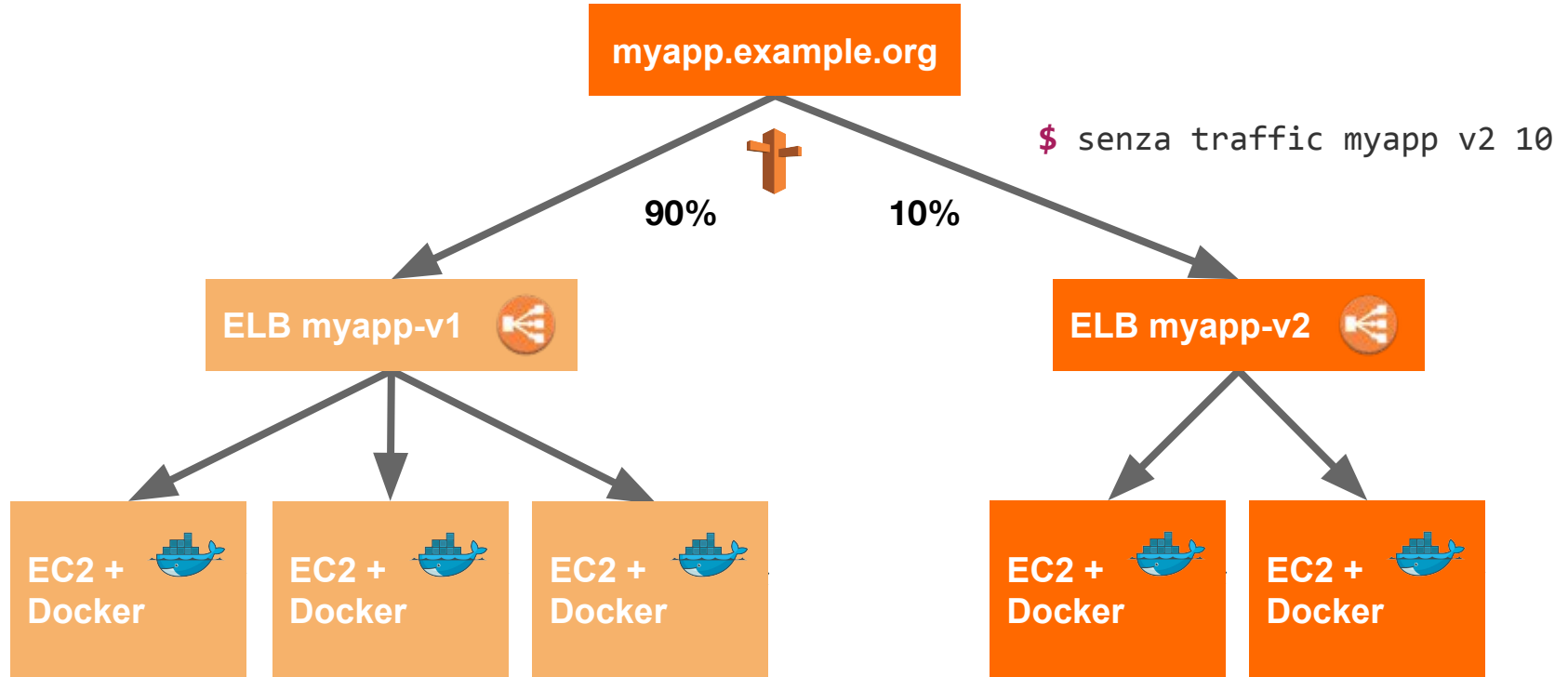


DEPLOYMENT

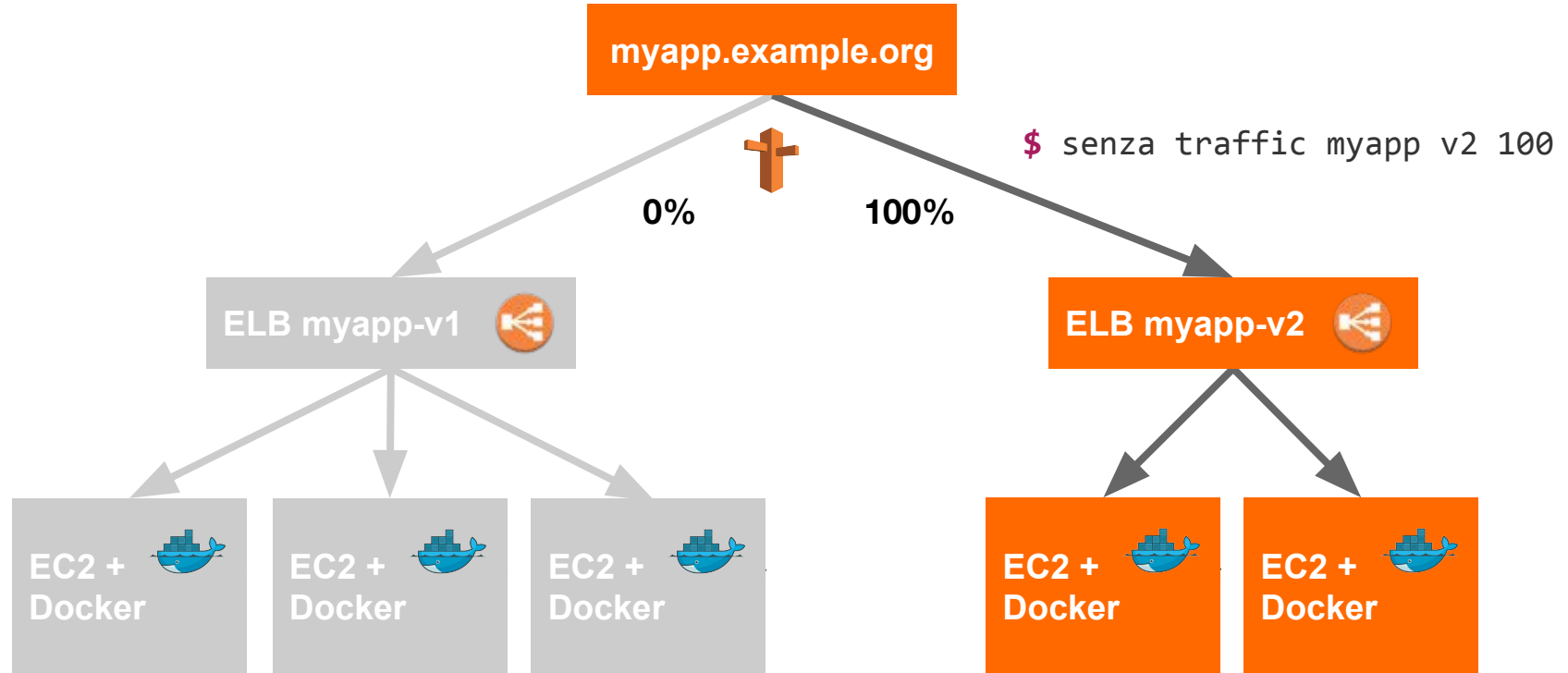
Immutable Stacks



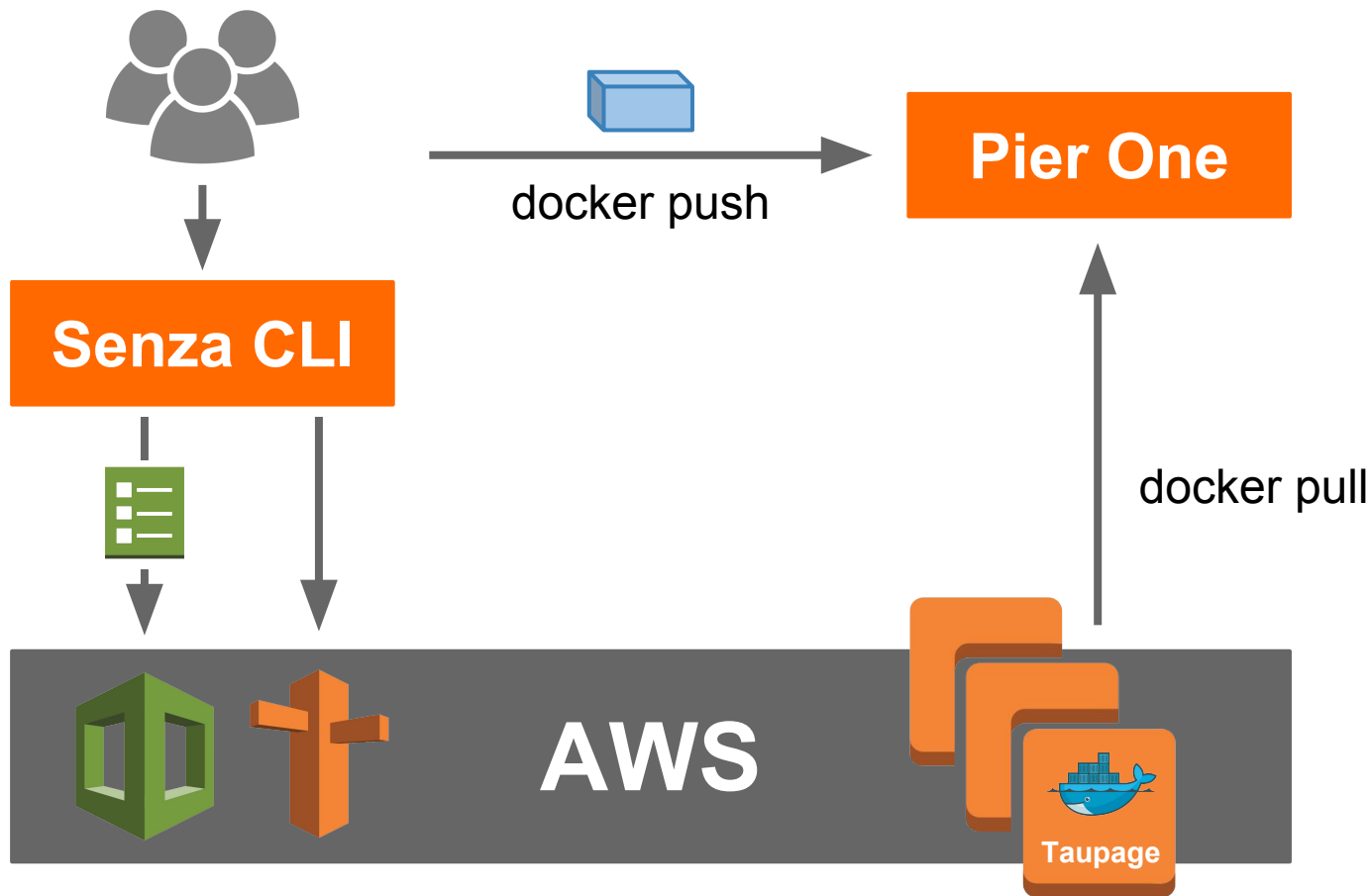
Immutable Stacks



Immutable Stacks



Deployment with Senza



SENZA: DEFINITION YAML

SenzaInfo:

StackName: hello-world

Parameters:

- ImageVersion:

Description: "Docker image version of Hello World."

SenzaComponents:

- Configuration:

Type: Senza::StupsAutoConfiguration *# auto-detect network setup*

- AppServer: *# will create a launch configuration and ASG with scaling triggers*

Type: Senza::TaupageAutoScalingGroup

InstanceType: t2.micro

SecurityGroups: [app-hello-world]

ElasticLoadBalancer: AppLoadBalancer

TaupageConfig:

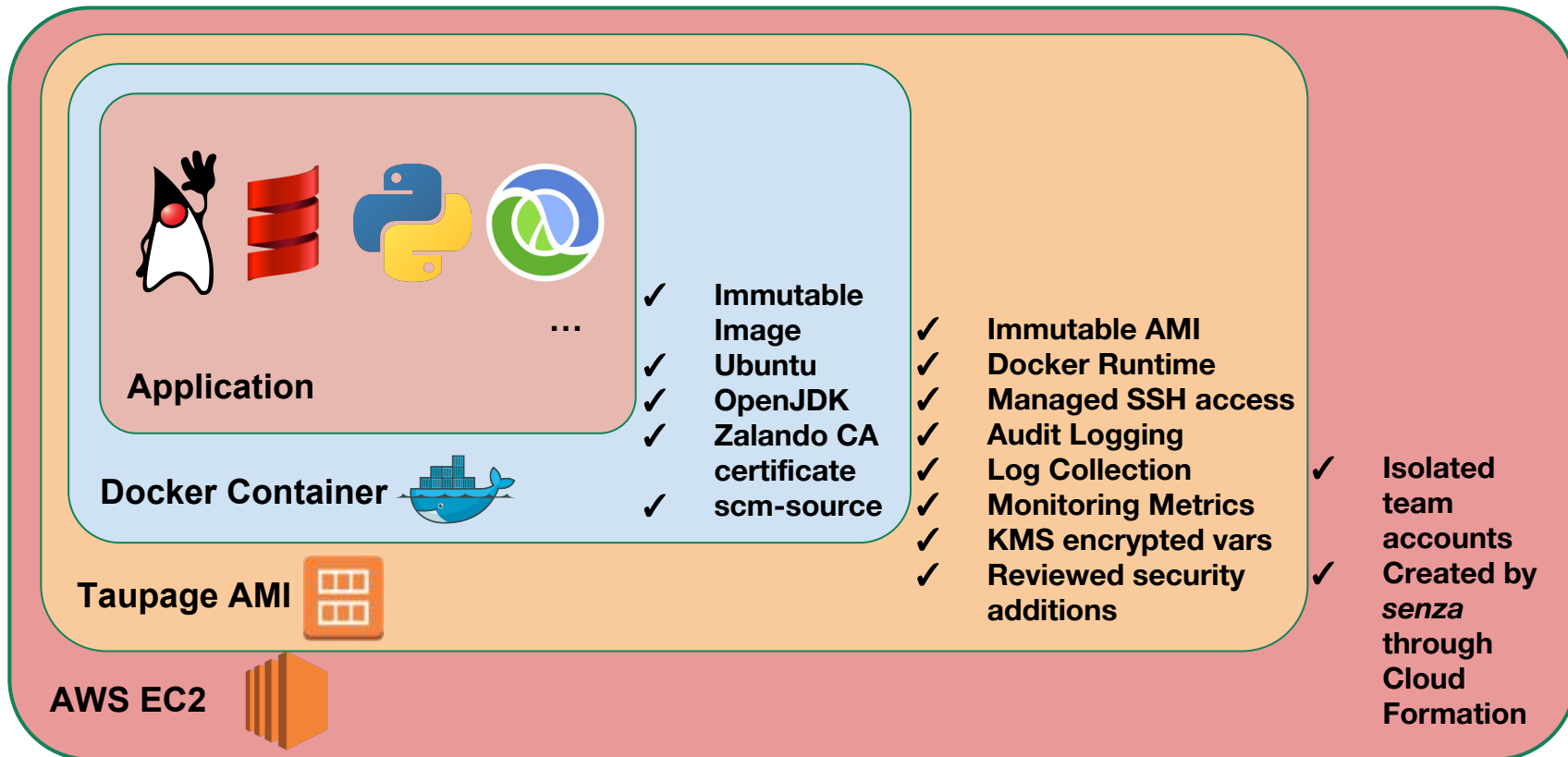
runtime: Docker

source: "stups/hello-world:{{Arguments.ImageVersion}}"

ports:

8080: 8080

The STUPS.io Stack





LOGGING

Search: **Log** Facets Histogram Graph

Minimize — Help ?

Filter

Expression: `$logfile='/var/log/application.log' $serverHost='connection-tracker'`

Start: 4 hours

End ▾

Tue Sep 1, 2015 11:19:57 AM ...

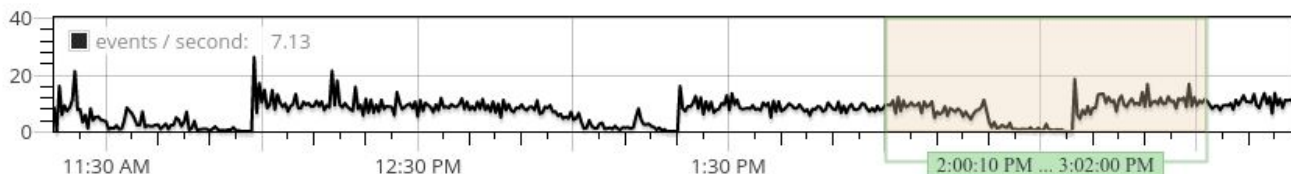
Display

Severity: **Finest** ▾Show: ☐ Timestamp ☐ Server ☐ Filename

▶ Refine search by:

Clear Form

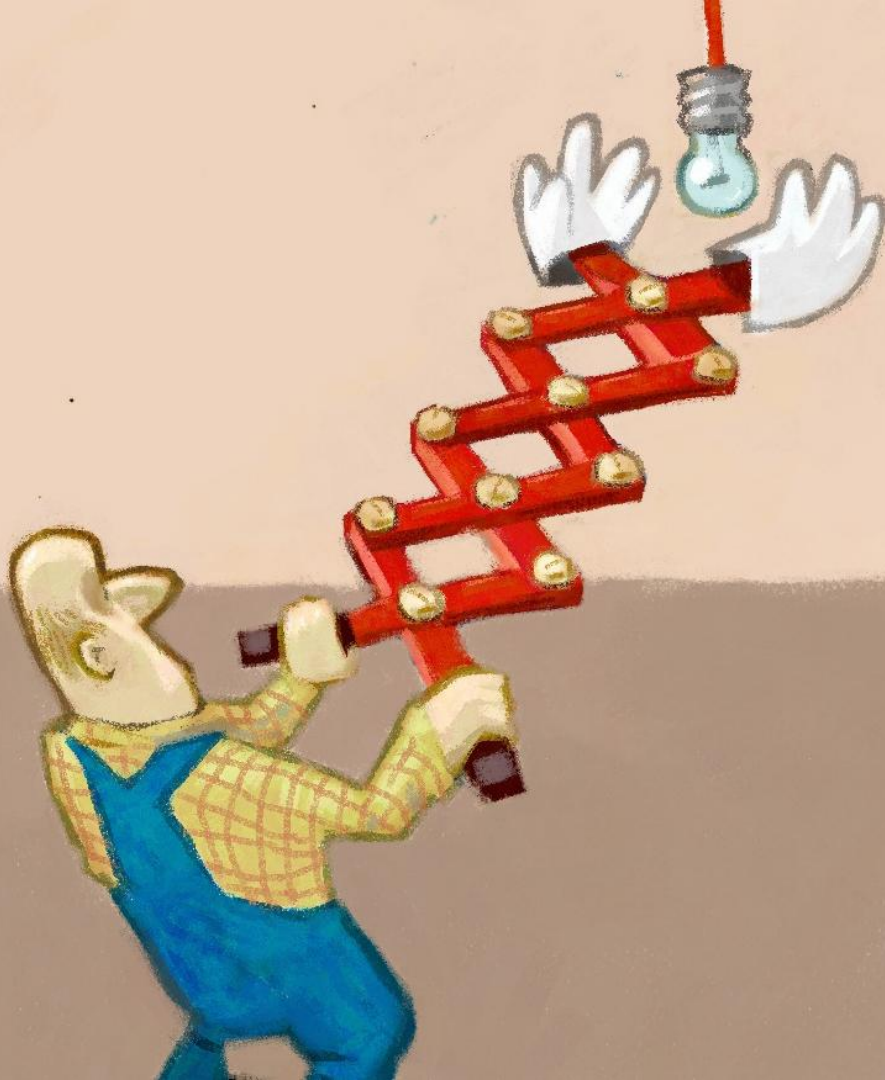
Save Search... ▾

 Search

Sep 1, 2015

```
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: 172.31.9.189 - - [2015-09-01 09:19:53] "GET /health HTTP/1.1" 200 111 0.000591
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Collecting network interfaces..
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Got 4 interfaces, 0 load balancers and 4 instances
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: 172.31.1.171 - - [2015-09-01 09:19:54] "GET /health HTTP/1.1" 200 111 0.009037
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Collecting network interfaces..
Sep 1 09:19:54 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Collecting network interfaces..
Sep 1 09:19:55 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Collecting network interfaces..
Sep 1 09:19:55 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Got 0 records and 0 new connections
Sep 1 09:19:55 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Connecting to eu-west-1..
Sep 1 09:19:55 ip-172-31-155-221 docker/42af9c3b0475[804]: INFO:root: : Collecting public EC2 instances..
```

Start « 15m < Prev Next > 15m » End Latest Live Tail ▾



REMOTE ACCESS

Remote SSH Access

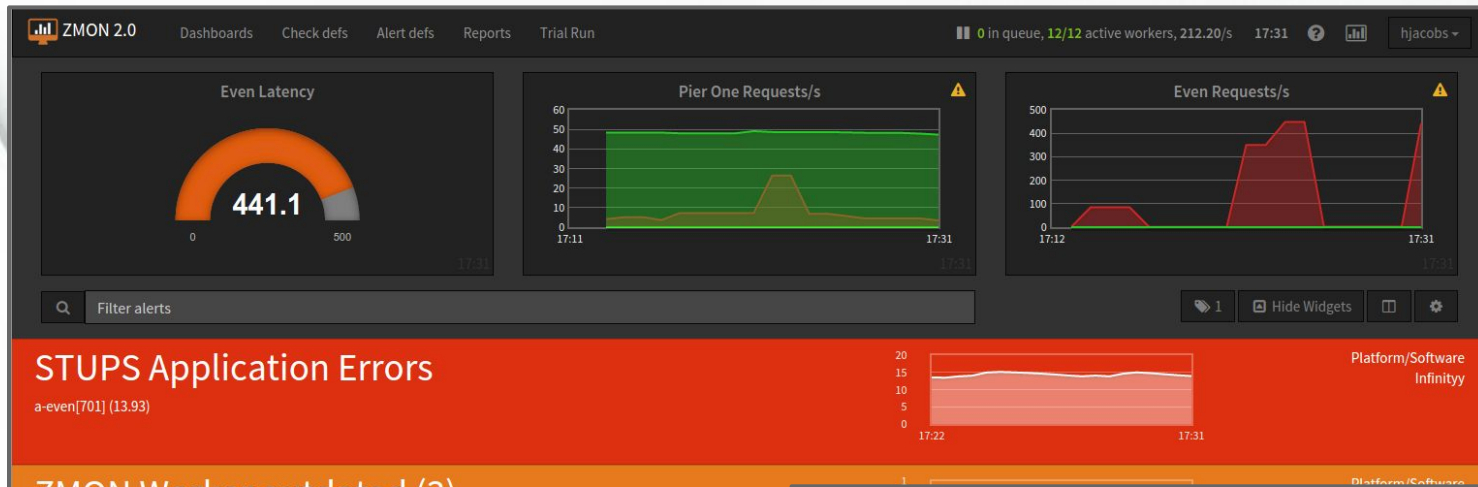
- Mostly for Debugging
- Audit Logging
- *più* granting Access





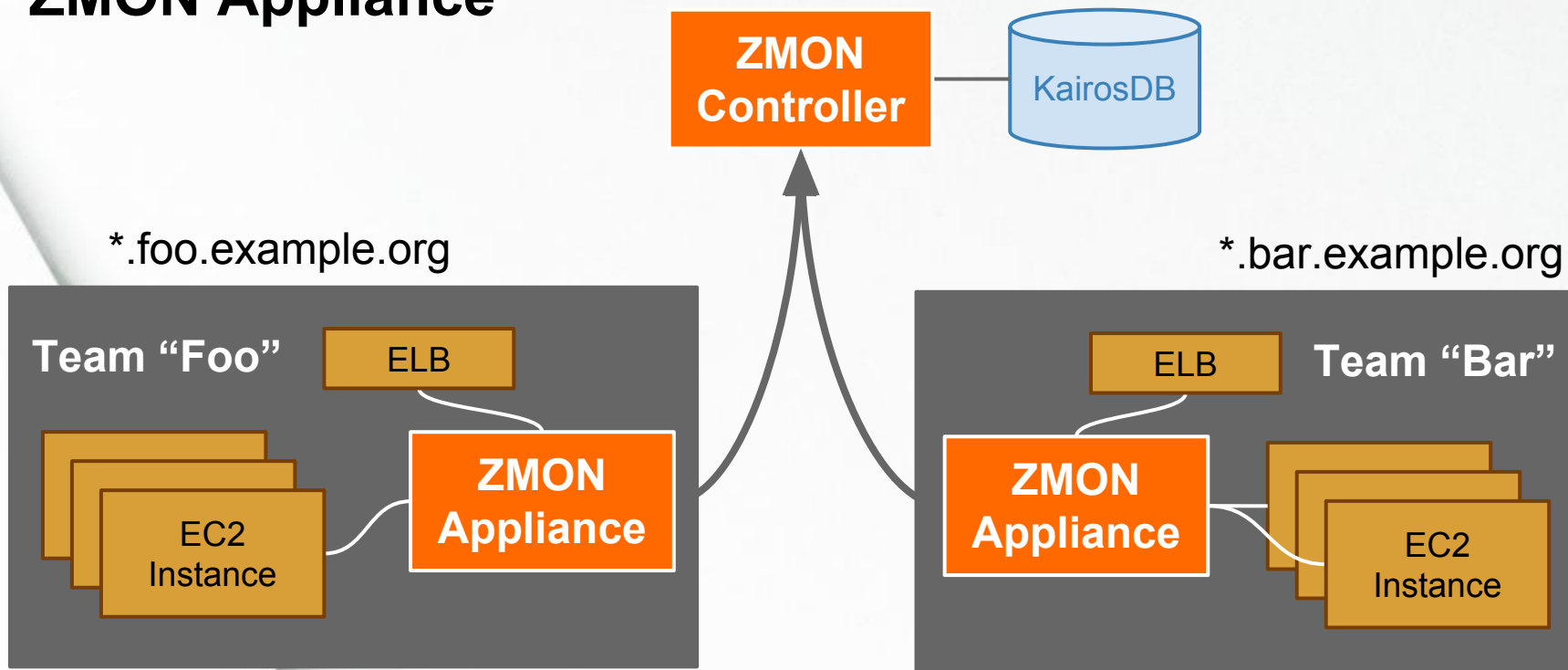
MONITORING

ZMON - our monitoring Solution



Alerts (11)					
In downtime (0)					
OK (11)					
Actions		Name	Timestamp	Last run	Value
	☒	elb-cucumber-report-7[178]	2015-05-29 16:58 (31s ago)	30ms	404
	☐	elb-docs-2[178]	2015-05-29 16:58 (31s ago)	13ms	200
	☐	elb-essentials-b14[701]	2015-05-29 16:57 (37s ago)	16ms	200
	☐	elb-even-b35[701]	2015-05-29 16:58 (7s ago)	44ms	200
	☐	elb-even-b37[701]	2015-05-29 16:57 (37s ago)	25ms	200
	☒	elb-fullstop-g7[701]	2015-05-29 16:58 (7s ago)	43ms	404

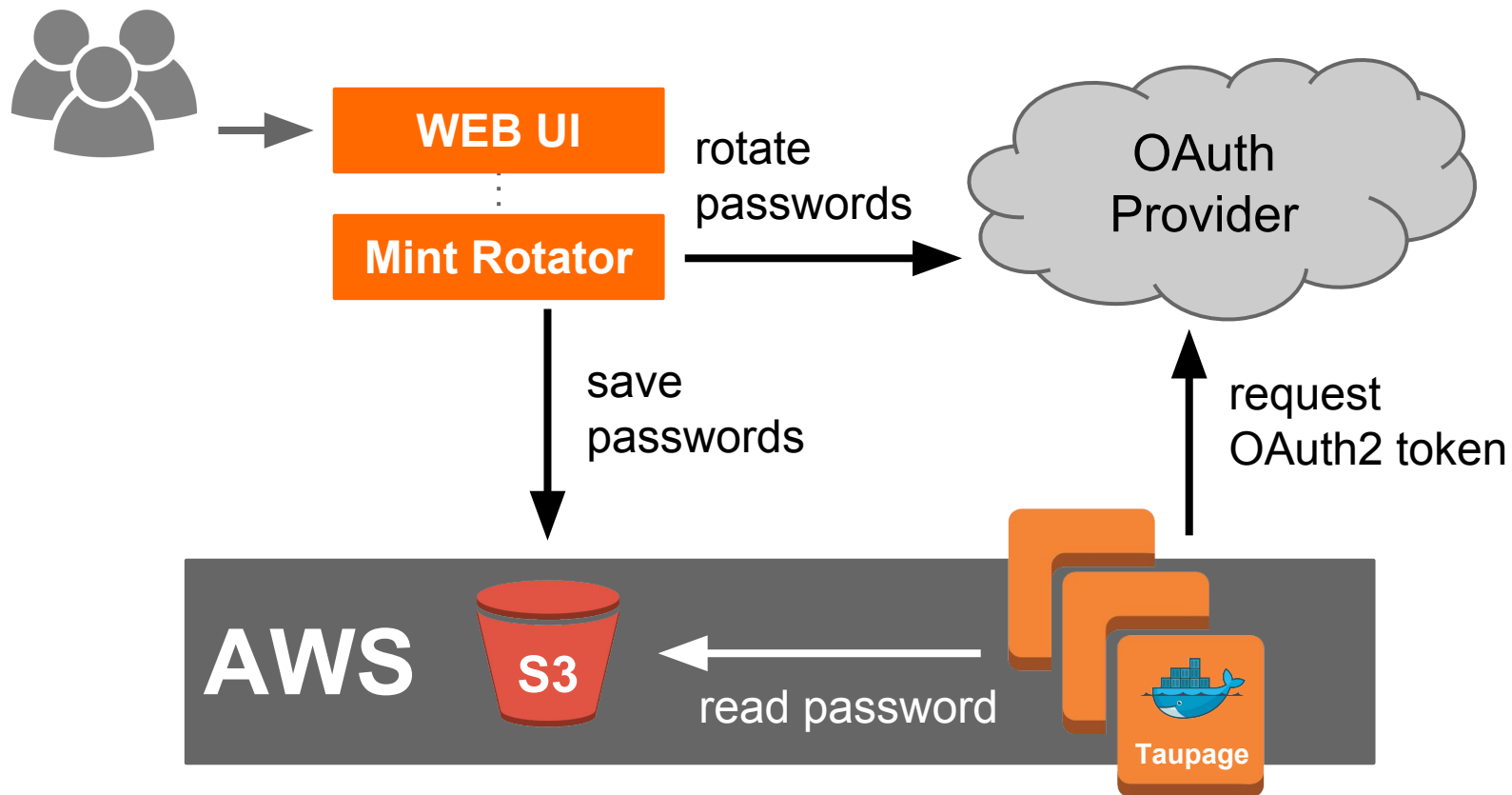
ZMON Appliance





SECURITY

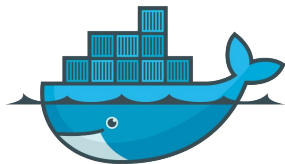
DISTRIBUTION OF CREDENTIALS OVER S3 BUCKETS



STUPS in a Nutshell



STUPS



- ❶ Isolated **AWS** account per Team
- ❷ Deployment with **Docker**
- ❸ Managed **SSH** Access
- ❹ **REST/OAuth 2.0** mandatory
- ❺ **Traceability** of changes

What you might find valuable

- **Taupage AMI** with Docker runtime
- **Senza** to manage Cloud Formation
- **Pier One** Docker Registry with S3

<http://docs.stups.io/en/latest/user-guide/standalone-deployment.html>

Questions?

STUPS Homepage

stups.io

GitHub Repositories

github.com/zalando-stups

tech-stups-pr@zalando.de





Please

**Remember to
rate session**

Thank you!

