

tesla-microservice@otto

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Clojure User Group HH

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@christian_stamm

OTTO

Inhalt

- Geschichte & Architektur otto.de
- Applikationen in otto.de
- Das Tesla Team
- tesla-microservice
- Code Demo

Vorgeschichte

1950

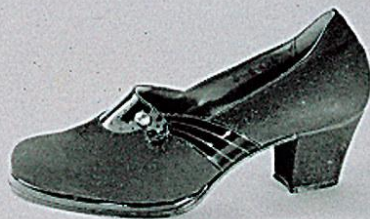
Der erste Katalog

- 28 Paar Schuhe
- 14 Seiten
- eingeklebte Bilder

W. Otto



Art. 568 orthopädischer Frauenschuh schwarz oder
braun Boxcalf mit Wildledereinsatz, ver-
längerte Hinterkappen, Größe 3-8.



Art. 565 Pumps schwarz Samtalf mit Lackbesatz
Absatzhöhe 5 cm, Größe 3-7.

1995

otto.de geht online



2011

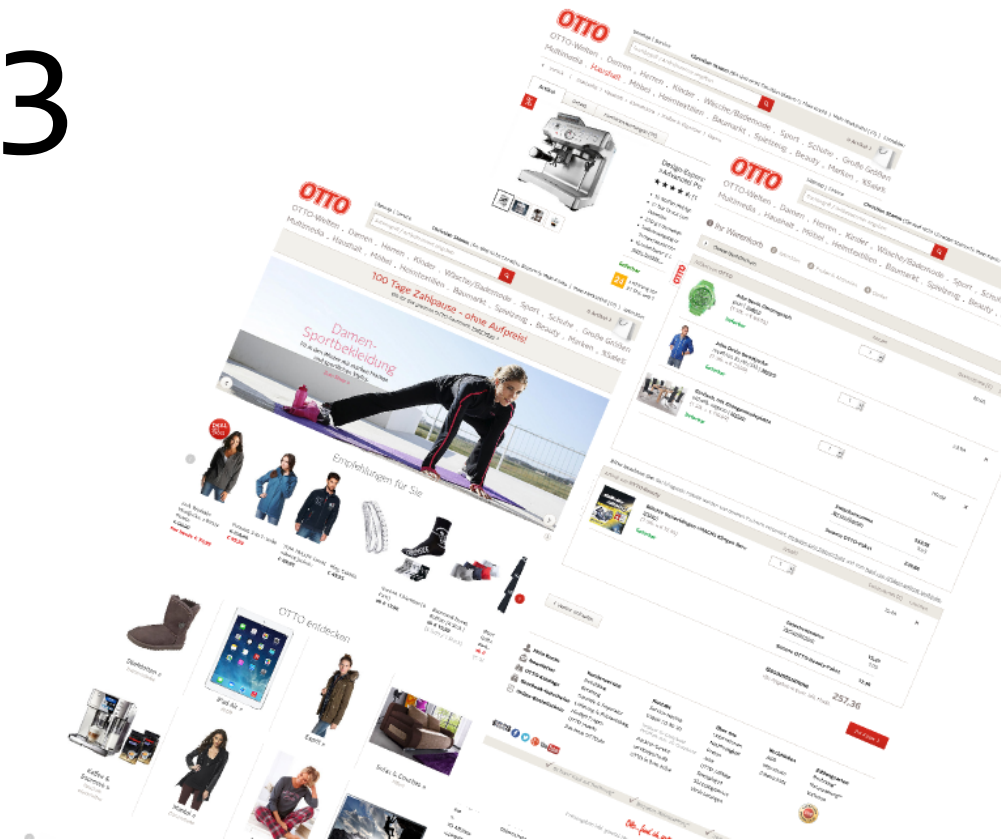
Intershop

- monolithische Applikation
- > 200 Server
- Deployment alle 2 Wochen



2011-2013

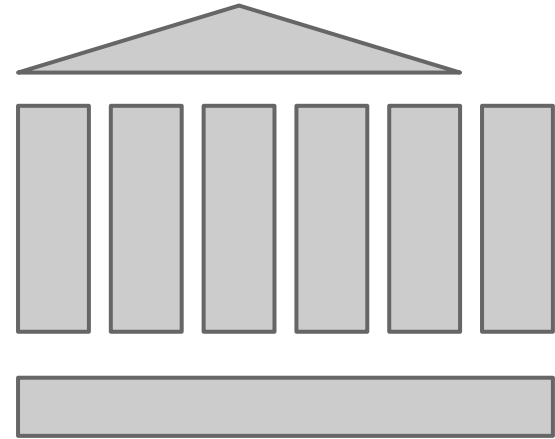
Eigenentwicklung Lhotse



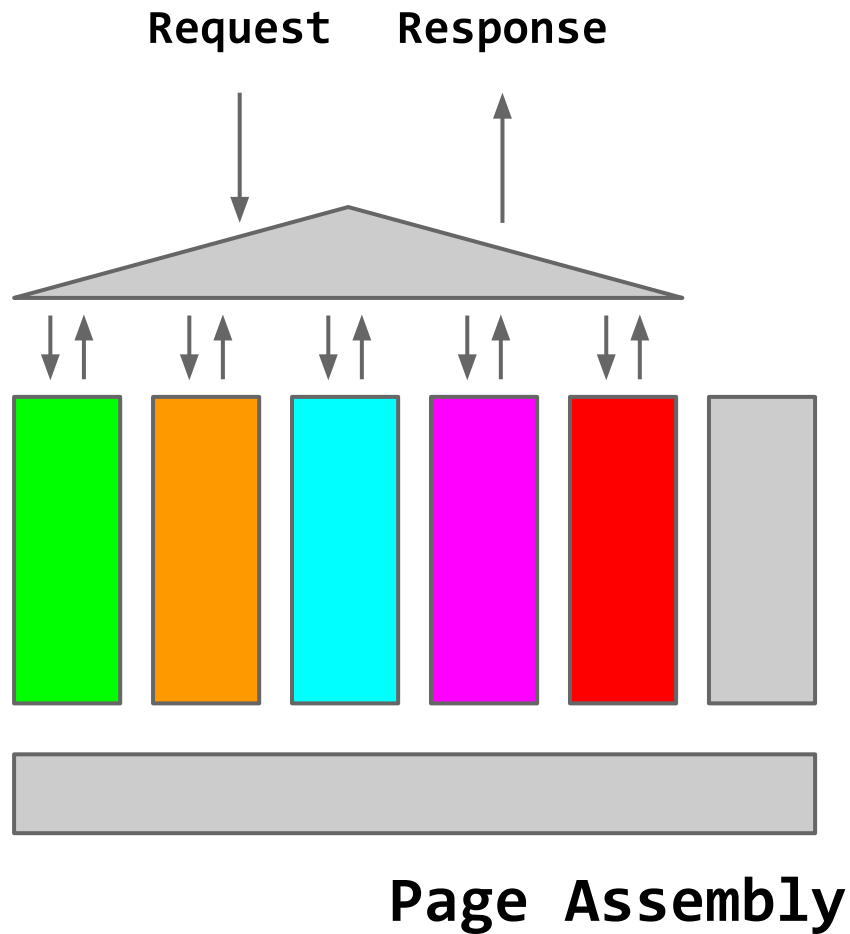
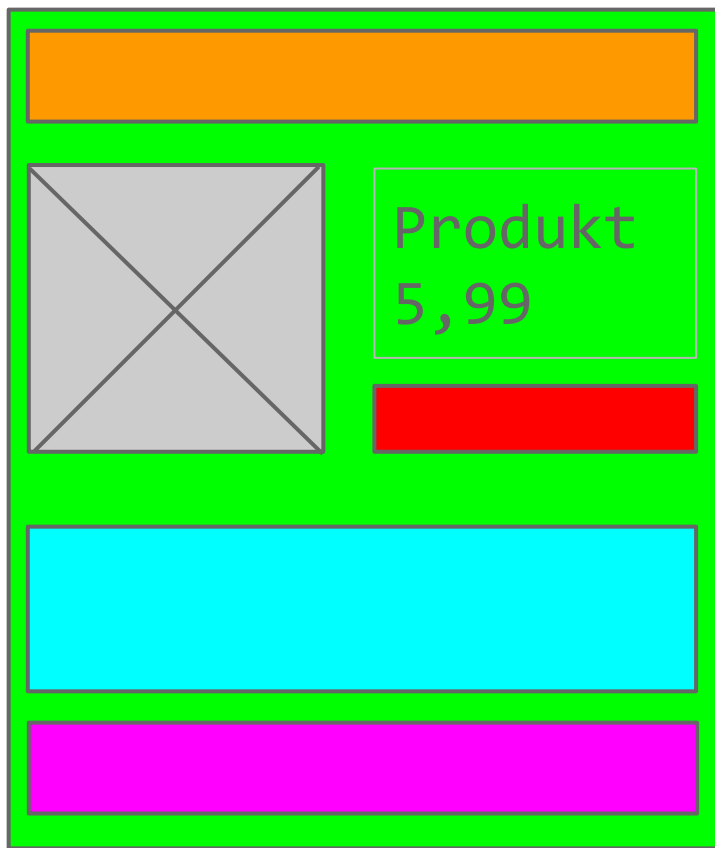
2011-2013

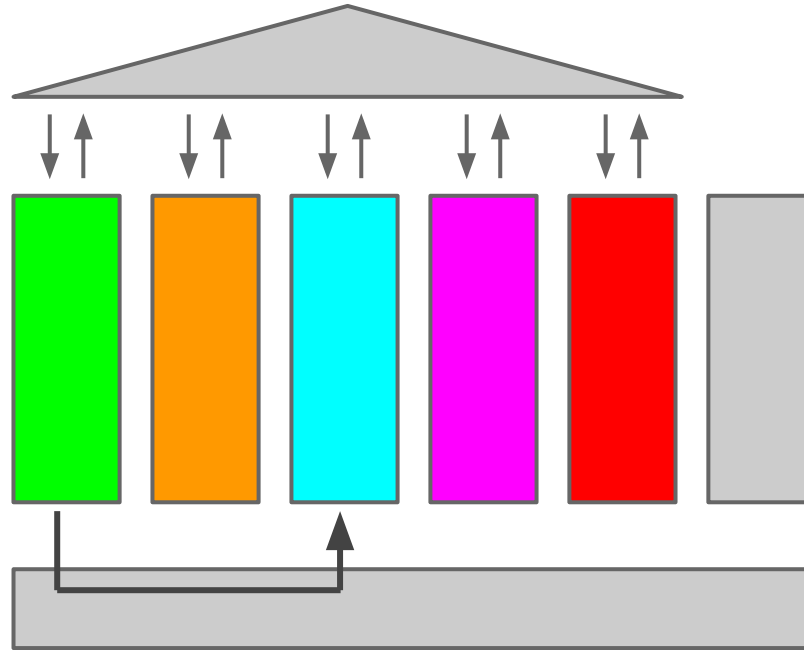
Eigenentwicklung Lhotse

- vertikaler Systemschnitt
- ~ 10 Systeme

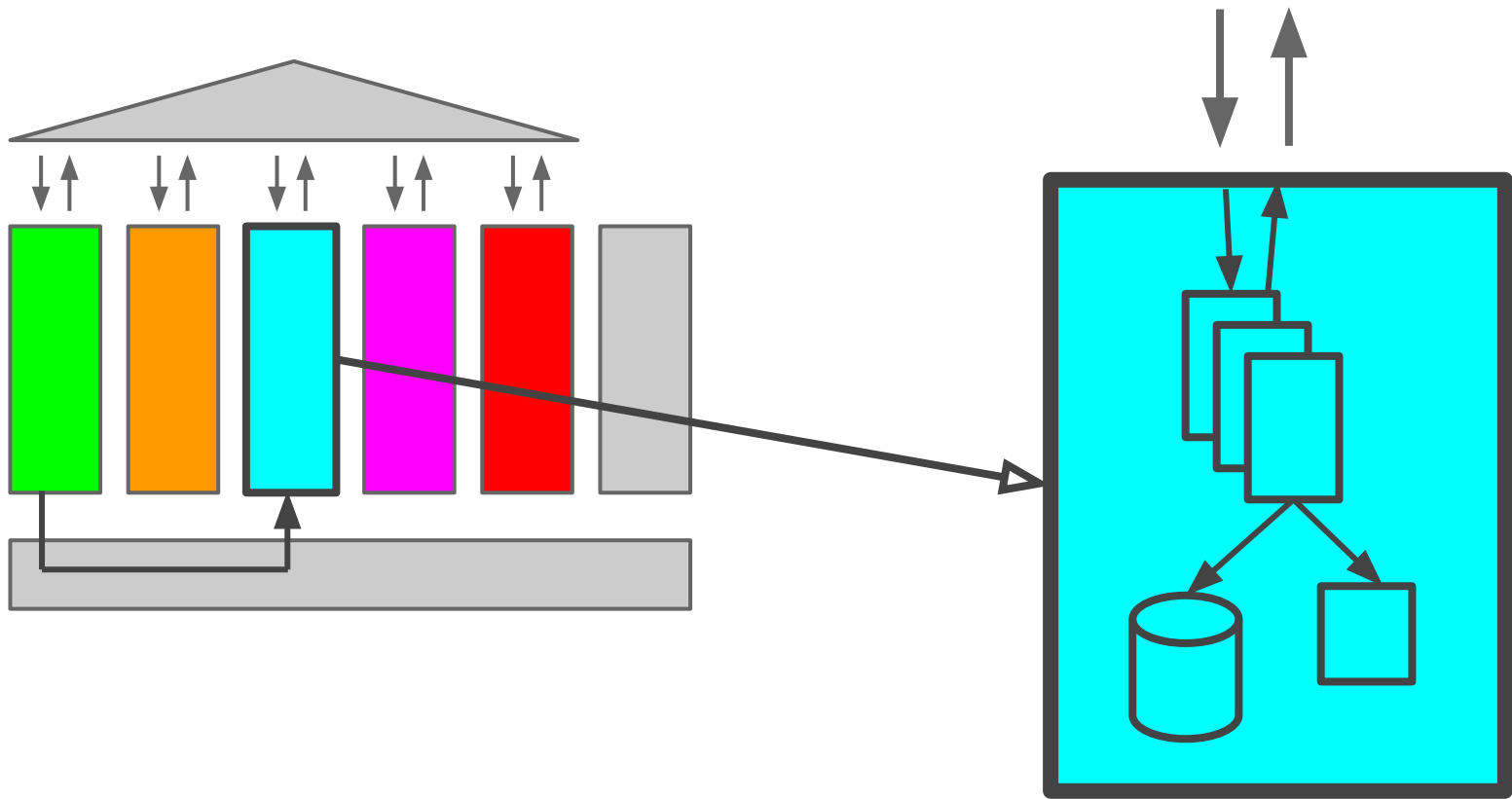


Architektur otto.de



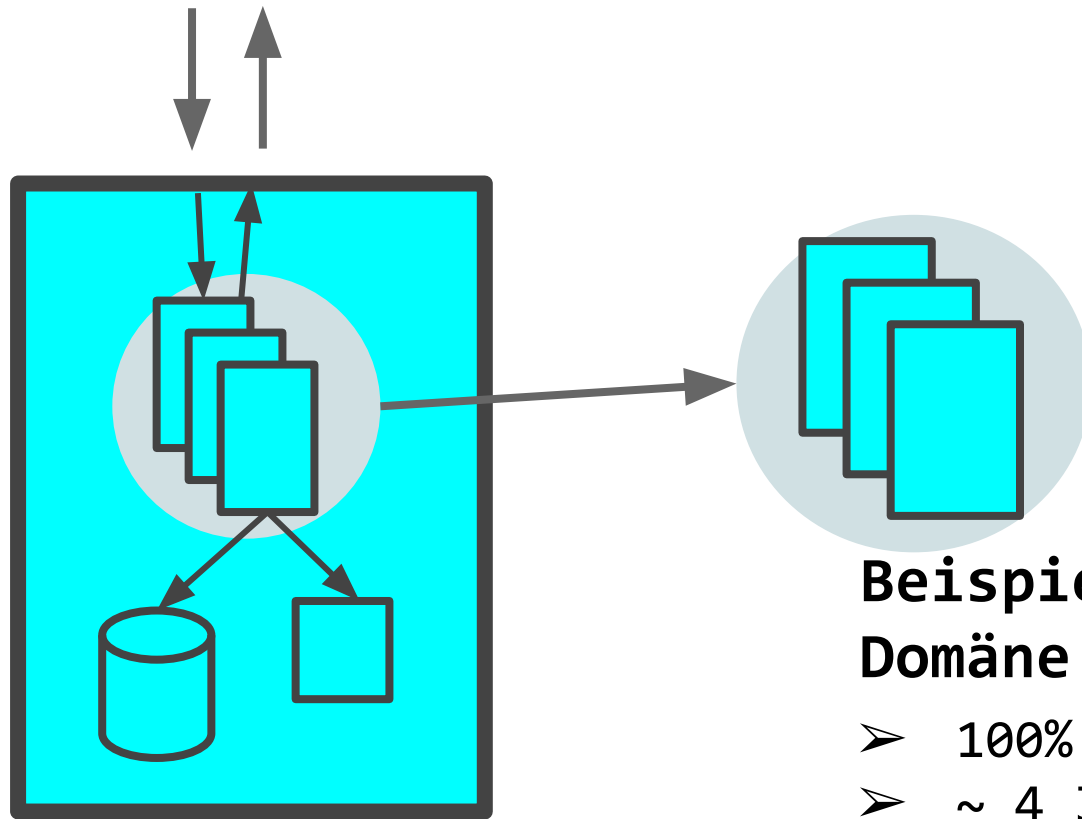


asynchrone Datenversorgung



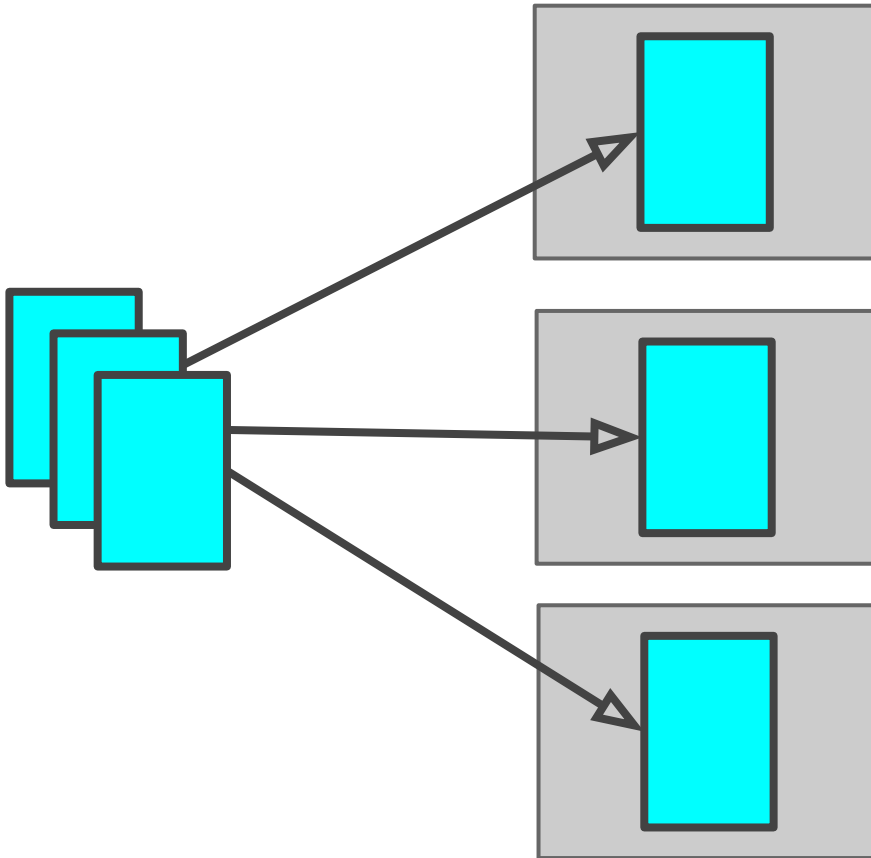
Microarchitektur

Applikationen



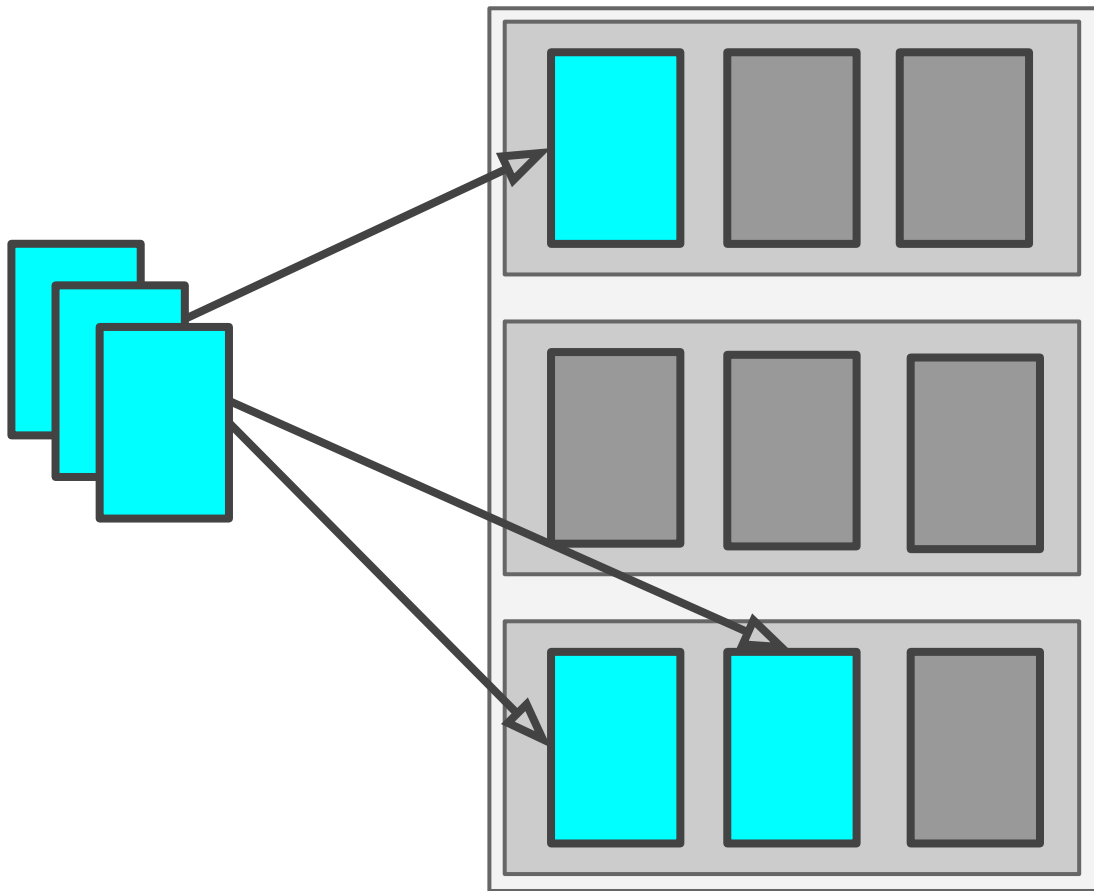
Beispiel: Domäne Entdecken

- 100% Java
- ~ 4 Jahre Entwicklung
- ~ 300k Lines of Code



Runtime: App-Server

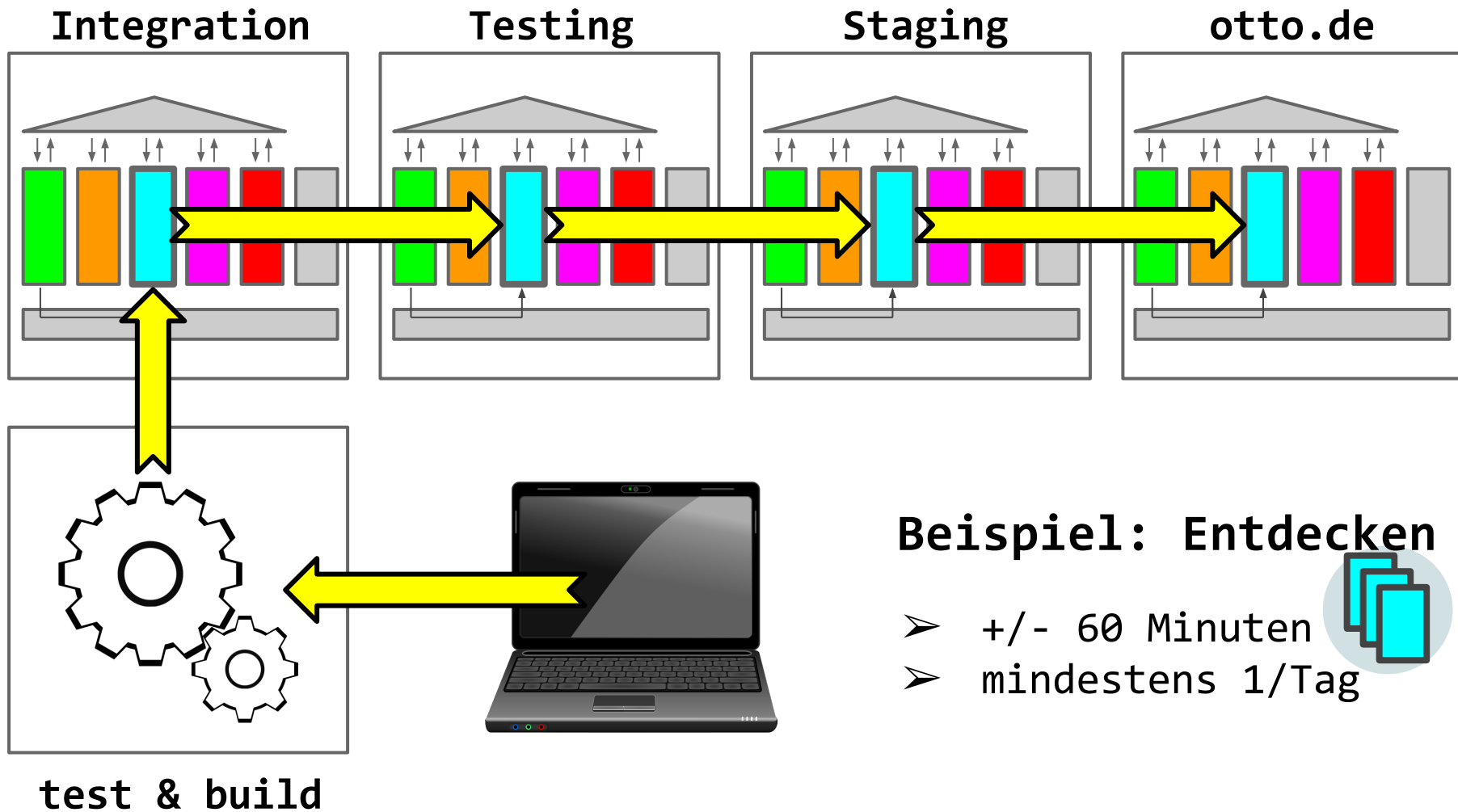
- dedizierte VMs
- Tomcat Server



Runtime: Cluster

- Mesos/Docker
- Marathon
- Chronos
- fat jars

Deploy Pipeline





Build Pipeline

v. 1.93.172



Pipeline #1

BUILD_USER_LAST_NAME: branden
KLASSIFIZIERUNG: normal
(Release-Features)
PRELIVE_ONLY: false
DEPLANTES_DEPLOYMENT: false
AUTORISIERUNG_DURCH:
BUILD_USER_EMAIL: kai.branden@hls.ch
BUILD_USER_ID: branden
ROLLBACKFÄHIG: true
WITH_VT_PIPELINE: true
BUILD_USER_FIRST_NAME: Kai
BUILD_USER: Kai Branden
HEBENLAUFID: true
VERSION: 0.4.132
SCHWANK_KONFIGURATION: false
BESCHREIBUNG: DE-Deployment

#1 0_prepare-mata

Apr 15, 2019 5:04:46 PM
12 sec

branden

#1 1_deploy-prodive-mata

Apr 15, 2019 5:04:56 PM
1 min 9 sec

branden

#1 2-1_cdp-chroma-mata

Apr 15, 2019 5:07:46 PM
2 min 55 sec

branden

#1 3_integrate-mata

Apr 15, 2019 5:07:46 PM
7.5 sec

branden

#2 4-1_deploy-live-mata

Apr 15, 2019 5:08:06 PM
20 sec

branden

#2 5-1_health-check-mata

Apr 15, 2019 5:07:46 PM
12 min 9 sec

branden

#2 4-2_deploy-01-mata

Apr 15, 2019 5:07:46 PM
2 min 15 sec

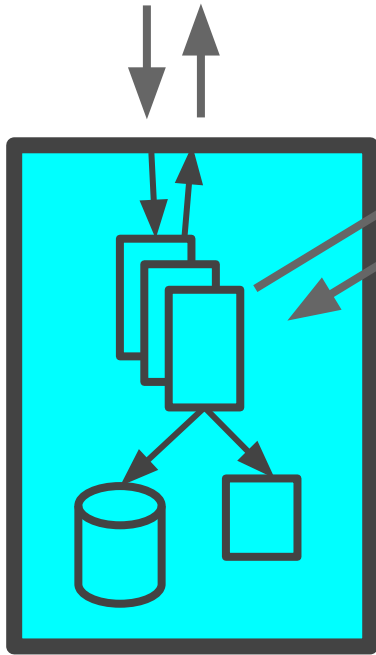
branden

#1 2-2_cdp-tracking-mata

Apr 15, 2019 5:07:46 PM
12 sec

branden

Monitoring und Betrieb



GET /status

GET /health

- Load Balancing
- Deployment-Automatisierung
- Changelog
- Environment Monitoring
- Alerting
- Team Monitors

Applikationsstatus

Failing

2-3_build
p13n_rnp

2-3_build
p13n_rnp

2-3_build
le-p13n_rnp

2-7_nutzerszenarien
p13n_rnp

build

smoke-prelive-qa

p13n-search_build

smoke-prelive-qa

Building ID	Build ID	Build Name	Build Type	Build Status	Build Details
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9
10	10	10	10	10	10

p13n

GENERATOR, TEASER, WITH, EXPANDED
NEW, PRODUCT, AND, SHOPTEASER, REPRESENTATION
TEA, TEASER, ENERGY, EFFICIENCY, ECON, IN, SHOWN
USE, SLATSEARCH, FOR, PRODUCT, JOURNAL
USE, TEASER, IN, MIDDLE

Services in status critical

1

1

Number of contents in the next deployment

P13N

SEARCH

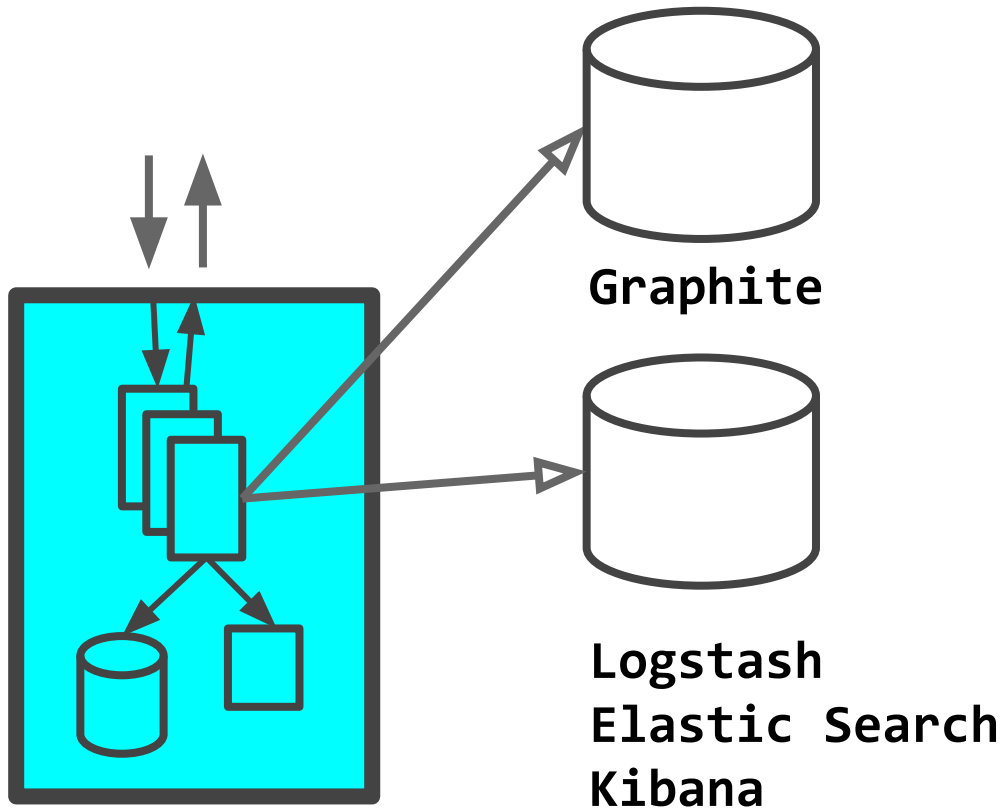
JOBTRIGGER

9

4

1

SAMSUNG



- Fehler Analyse
- App Monitoring
- Team Monitore

Metriken und Logging



Das Tesla Team

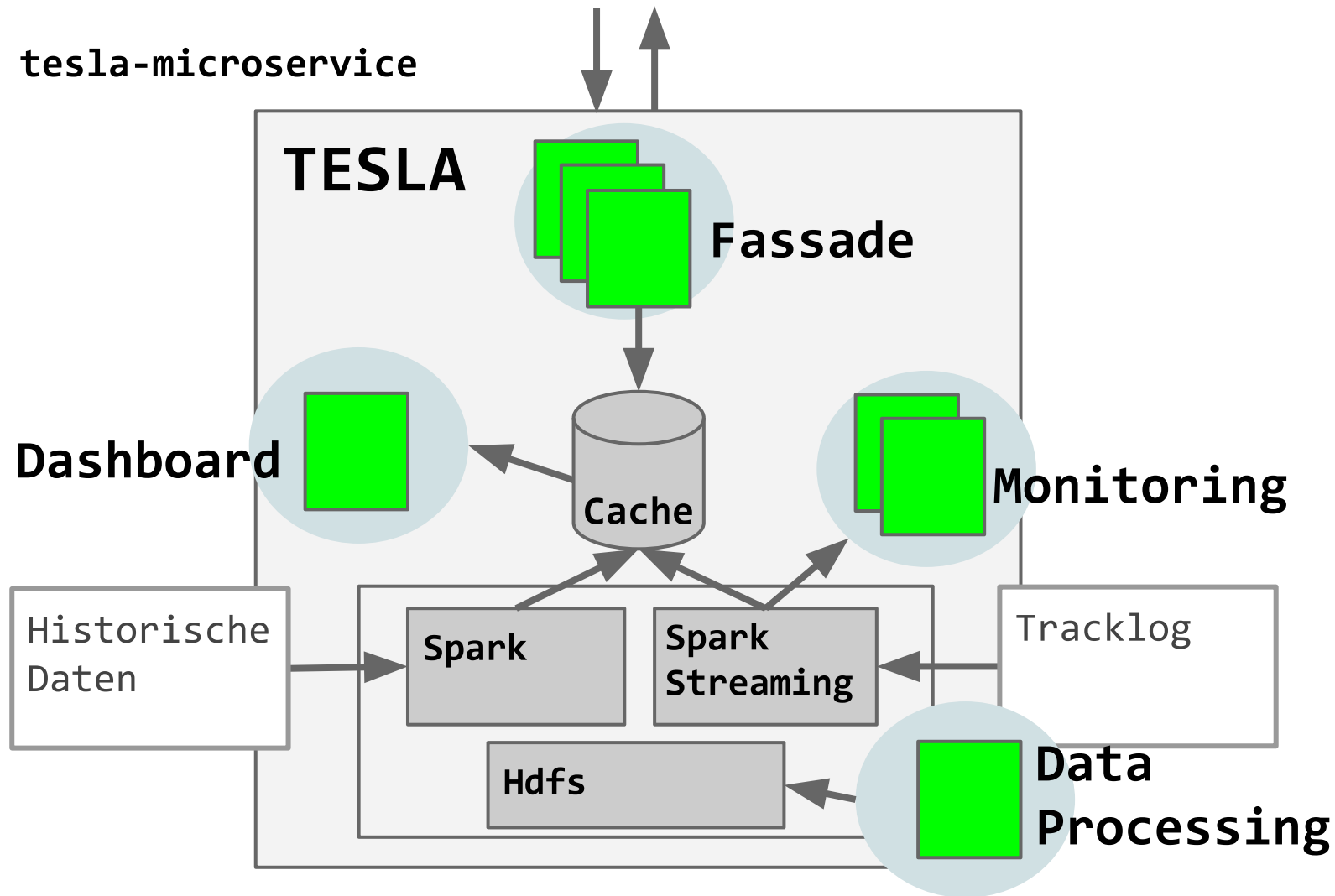


2014

Personalisierung für otto.de

- Entstanden aus Prototyp
- in Produktion nach 2 Wochen
- Clojure App als Keimzelle

 = tesla-microservice



in anderen Teams

Tracking

- Kafka -> Kafka
- Kafka -> Filesystem
- Kafka -> Session -> UI

Entdecken

- Deploy Pipeline
- jobtrigger

Andere

- pub/sub mit core.async
- Immutant statt Jetty
- PGP User-Login

tesla-microservice

github.com/otto-de/tesla-microservice

Warum Clojure?

Warum Github?

Addons

- MongoDB
github.com/otto-de/tesla-mongo-connect
- Zookeeper
github.com/otto-de/tesla-zookeeper-observer
- file system/HDFS
github.com/otto-de/tesla-cachefile
- more to come

Code Demo

Vermeidbare Probleme

- health/status langsam
- indirekte `:server`-Abhängigkeiten
- default.properties

Mitmachen: github.com/otto-de

Lesen: dev.otto.de

Bewerben: www.ottogroup.com/karriere

Einkaufen: www.otto.de

Danke!

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@christian_stamm

OTTO