



# K8s Stammtisch

21.11

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# Themen und Agenda

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- „This group is dedicated to meetings and get-togethers that may foster the exchange within the community.”  
→ Vorstellungsrunde
- Daniel Drack: CI/CD mit Azure DevOps & K8s
- Michael Klug: Argo CD
- ~~Get-Together~~

# Daniel Drack

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- BSc – Industrial Engineering
- MA – Innovationsmanagement
- MBA [tbd] – IT Management
  
- ARZ Allgemeines Rechenzentrum GmbH [5 Jahre]
  - System Admin
  - ETL / Datenbank Entwickler
  - Informationsarchitekt
  
- AVL List GmbH [3 Jahre]
  - DevOps Engineer

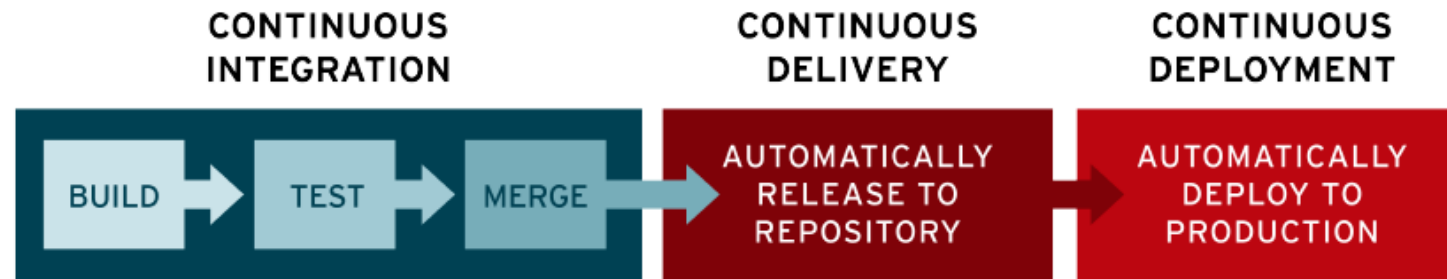


# CI/CD mit Azure DevOps & K8s

Daniel Drack

# CI/CD mit Azure DevOps & K8s

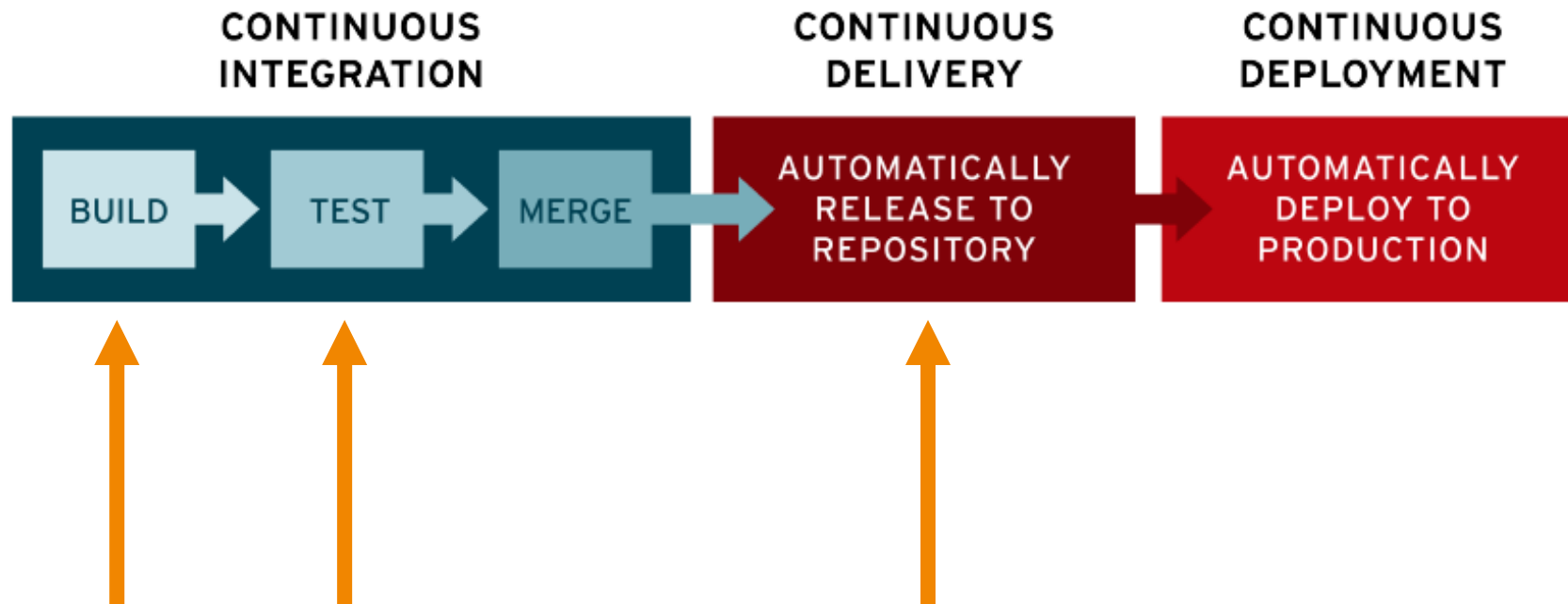
- CI / CD [1]



- Azure DevOps
  - Azure Boards
  - Azure Artifacts
  - Azure Test Plans
  - Azure Repos
  - **Azure Pipelines**

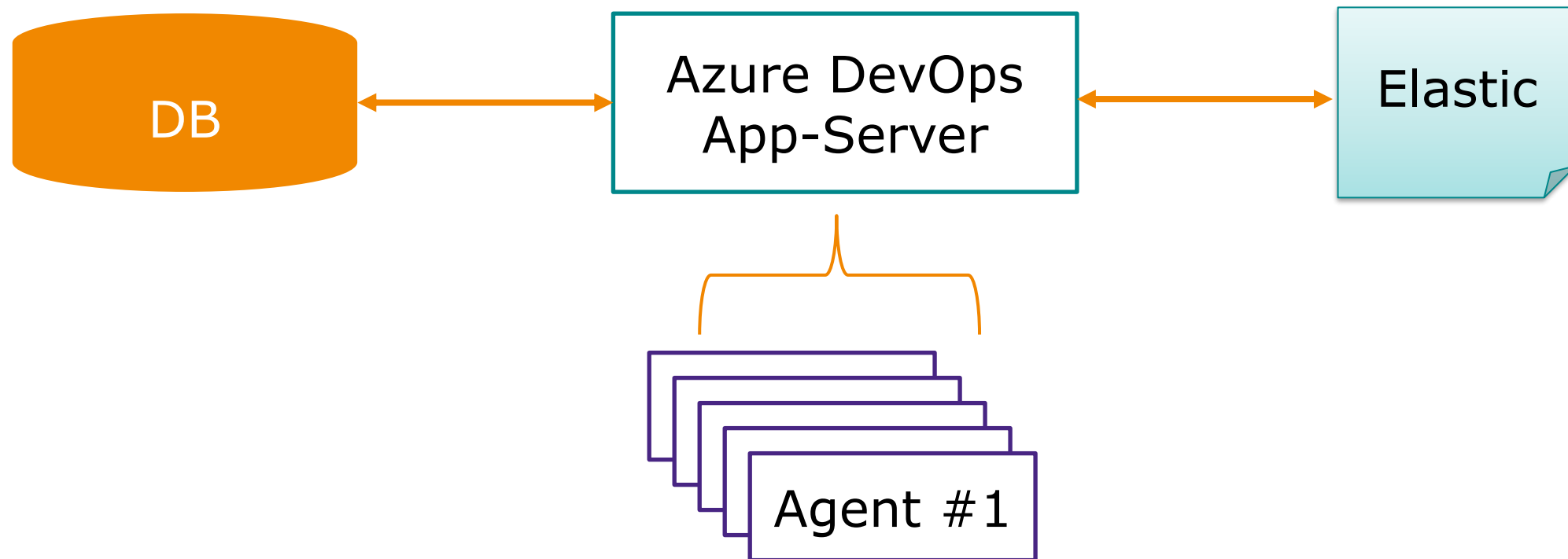
[1] <https://www.redhat.com/en/topics/devops/what-is-ci-cd>

# Unser Fokus heute..





# Azure DevOps in a nutshell





# Pipelines

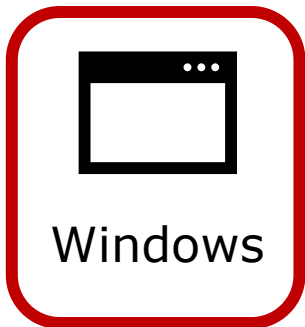
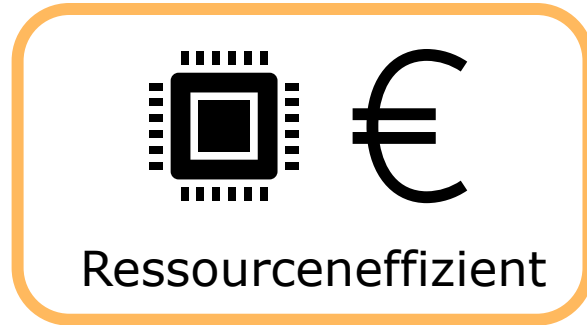
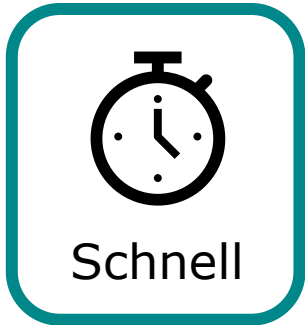
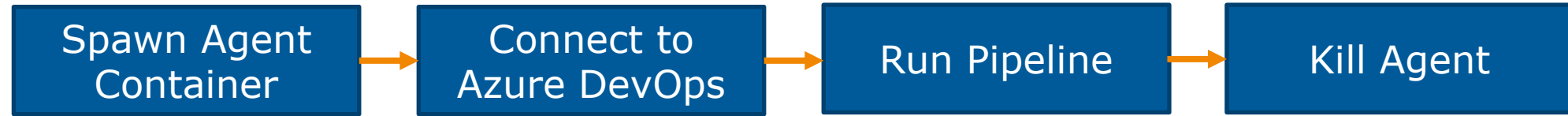
- YAML files
- CI / CD
- 3 Ebenen
  - Stage
  - Job
  - Task/Step
- Herstellerplugins (zB SonarQube, JFrog,..)
- **Ausgeführt am Agent**



## Build

✓	build and deploy NP...	4m 14s
✓	Initialize job	<1s
✓	Checkout TechCmdb@f...	4s
✓	correct workingdir path	<1s
✓	install npm packages	49s
✓	build npm package	3m 14s
✓	publish Microservices/S...	3s
✓	Post-job: Checkout Te...	<1s
✓	Finalize Job	<1s
> ✓	Build Container	39s
Finalize build		
✓	Report build status	<1s

# Azure DevOps Build Agent Container



- Dauerläufer + Datenmüll
- Keine Skills / Kein Wille
- Netzwerkprobleme / Riesige Images

# (derzeitige) Problemlösung

## Standard Agents + Pipeline-Framework

- IT Agent Pool für Standard Use-Cases und Technologien
- Self-Killing Agents
- Pipeline Framework für Standard Use-Cases  
( build | test | deliver | deploy )

## Individuallösungen

- Individuelle Build-Agents  
(seltene Compiler, Yocto,..)
- Individuelle Pipelines
- Azure DevOps Support falls nötig

# Offene Probleme

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- Technische Probleme
  - Windows VMs → Testing
  - K8s auf Windows
  - Zu große Images → spezielle Compiler/Toolchains
- Strategische Probleme
  - Wechsel auf GitHub Enterprise
  - Umstellung bestehender Pipelines
  - Bereits Verwendung unterschiedlicher Tools



# Fragen..?

Daniel Drack