Container Bootcamp

Microservice Size



Absolute value?

Lines of Code?

- Depends on programming languages
- ...and the problem to solve

No absolute value

Microservices Should be Small, right?

Modules

- Microservices = modules
- Developer only needs to understand module
- Smaller modules easier to understand

Replaceability

- Many projects try to replace old systems
- Microservices should be replaceable
- Smaller modules easier to replace
- Large modules (e.g. deployment monoliths) impossible to replace

Microservices Should be Small!

- Goal: team should be able to work independently
- One team responsible for each Microservice
- Microservice must be small enough for one team
- Team might have more than one

Microservices should be Big, right?

Infrastructure

- Demand on infrastructure
- Build and Deploy
- Continuous Delivery pipeline
- Version control

Bigger services -> fewer services -> less infrastructure

Distributed Communication

- Distributed communication slow
- ...and unreliable
- Refactoring across services hard

Bigger services -> fewer services

Transactions and Consistency

- Transactions limit to one Microservice
- Technical constraints
- Locking

- Consistency: e.g. value of orders and revenue must be equals
- Only possible in one Microservice

Microservice Size

Ideal size of a Microservice

Team size Modularization Replaceability No absolute value! Transaction and Consistency Infrastructure

Distributed Communication