

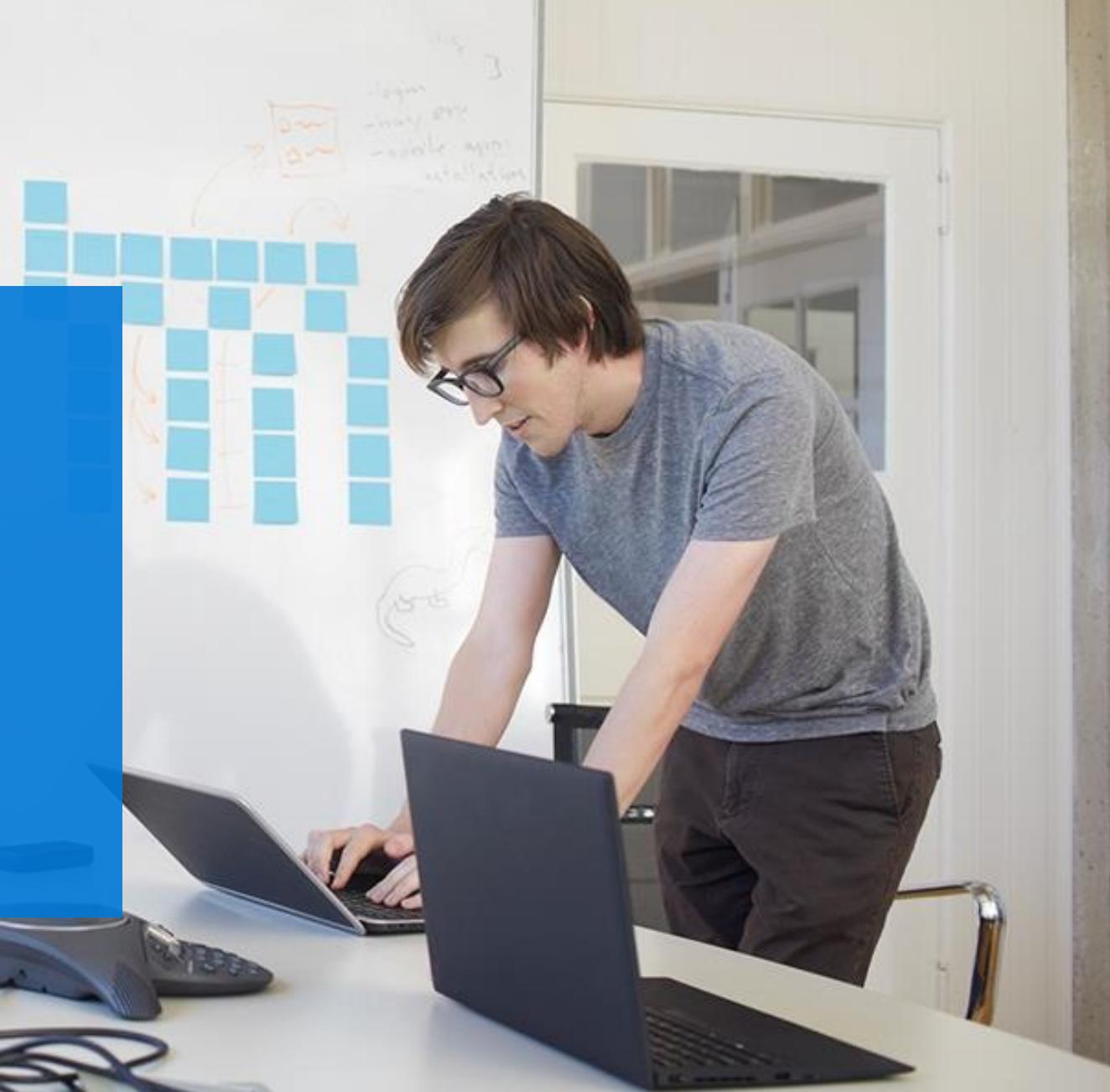


微软Azure云助力微服务

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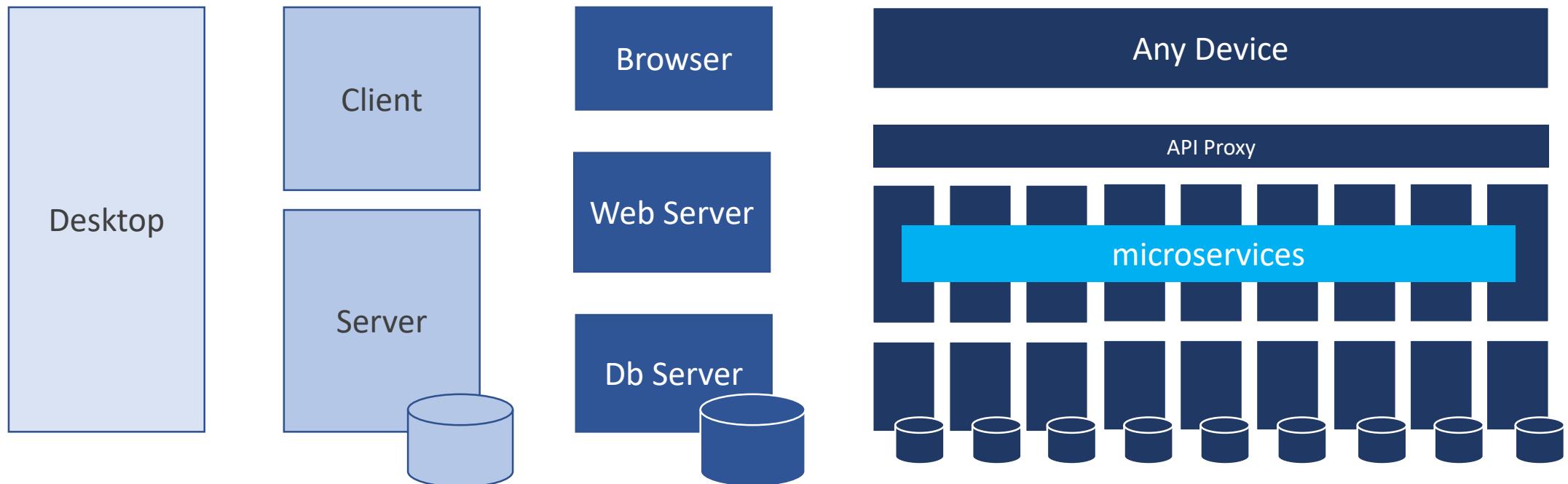
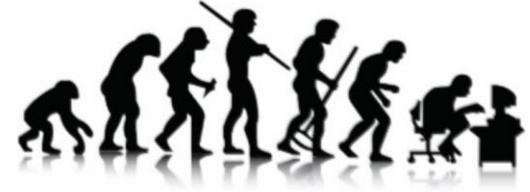
技术顾问



概览

- 微服务的演变过程
- 容器与微服务
- Azure容器服务生态
- 持续集成和持续交付

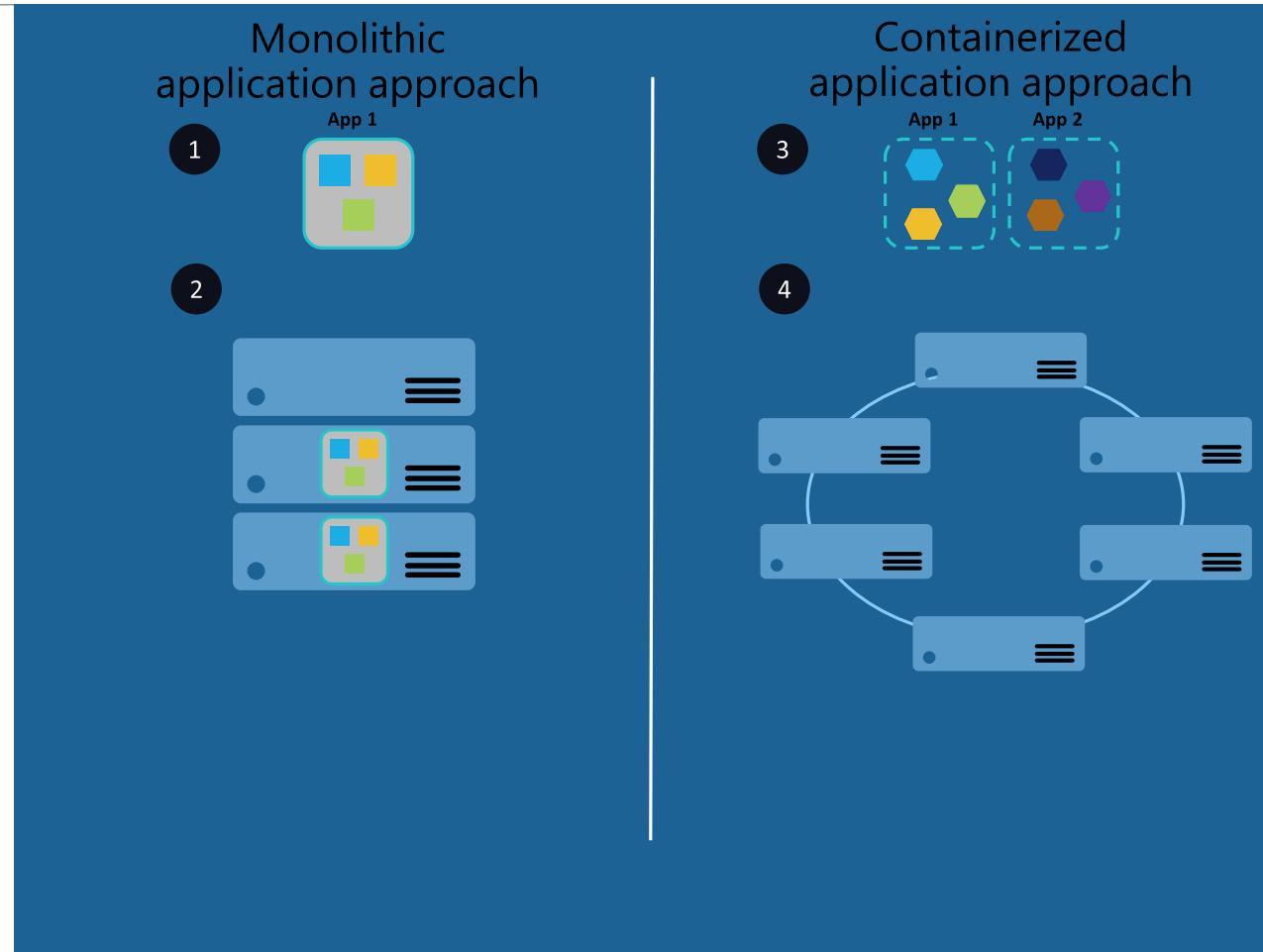
软件架构的演变



From Monolithic to Microservice

集群部署：单体应用 VS 微服务应用

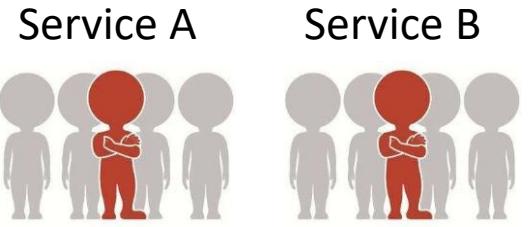
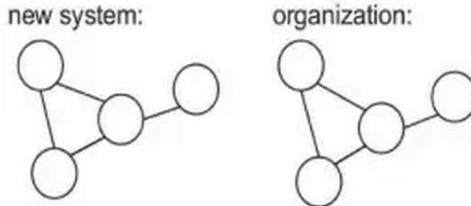
- 分开编译和部署
- 小的独立执行的任务
- 集成时调用 published API
- 细粒度松耦合的应用程序



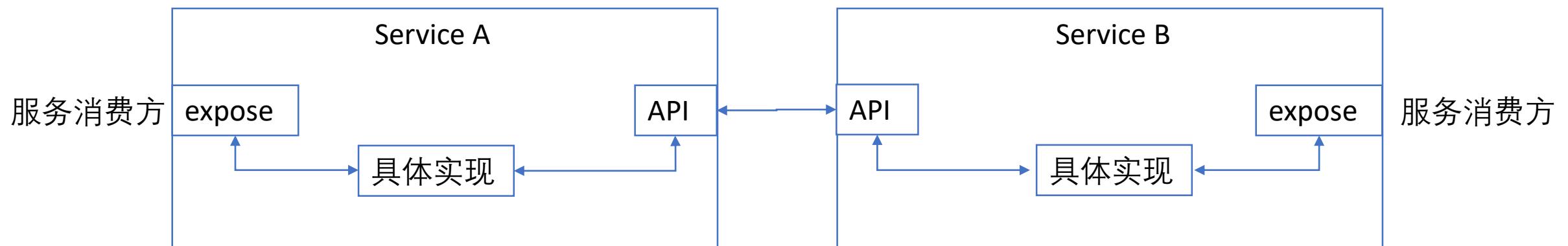
微服务是什么？

“小而专业”

conway's law



“独立自治”



微服务带来什么好处

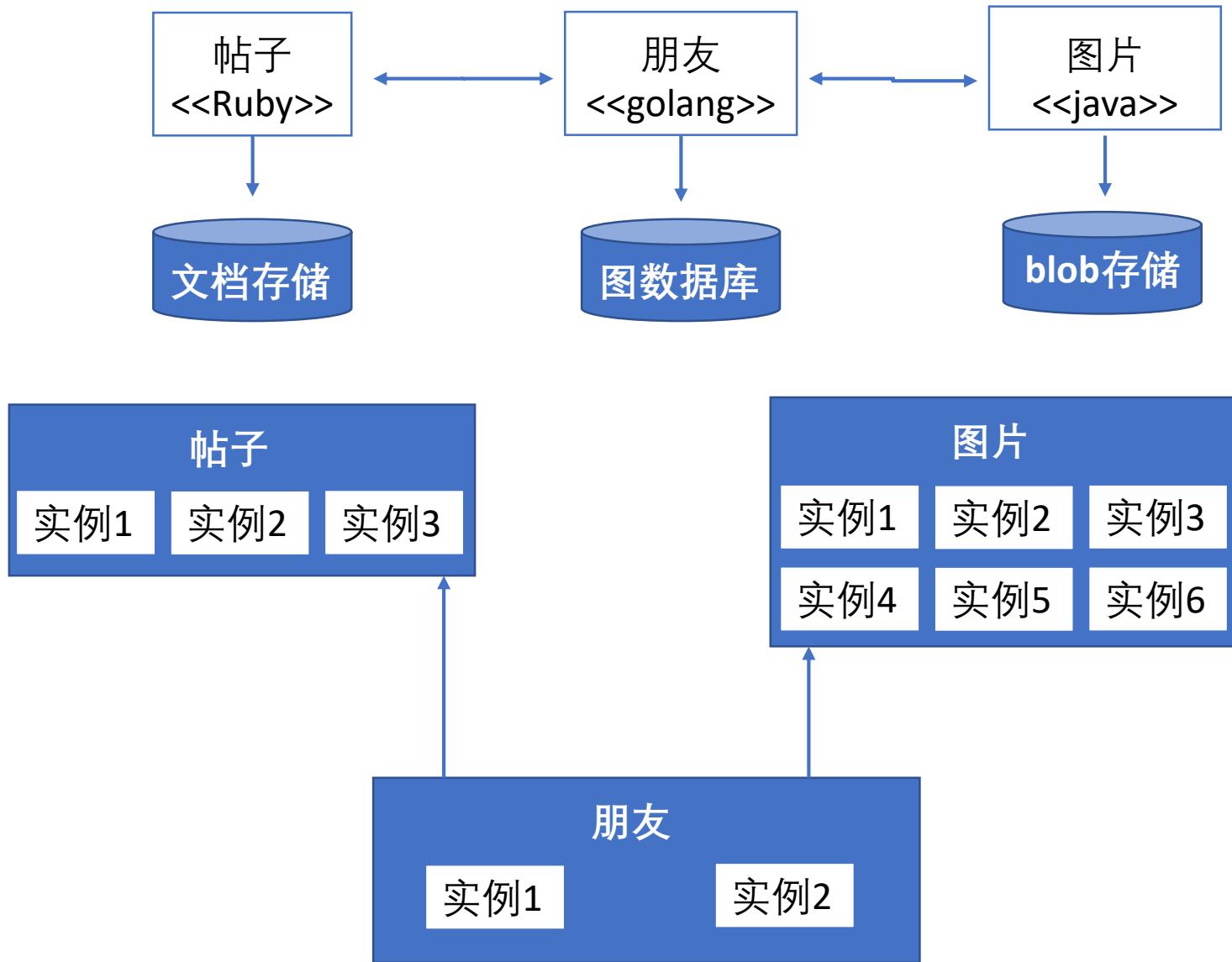
技术异构

容错

扩展

简化部署

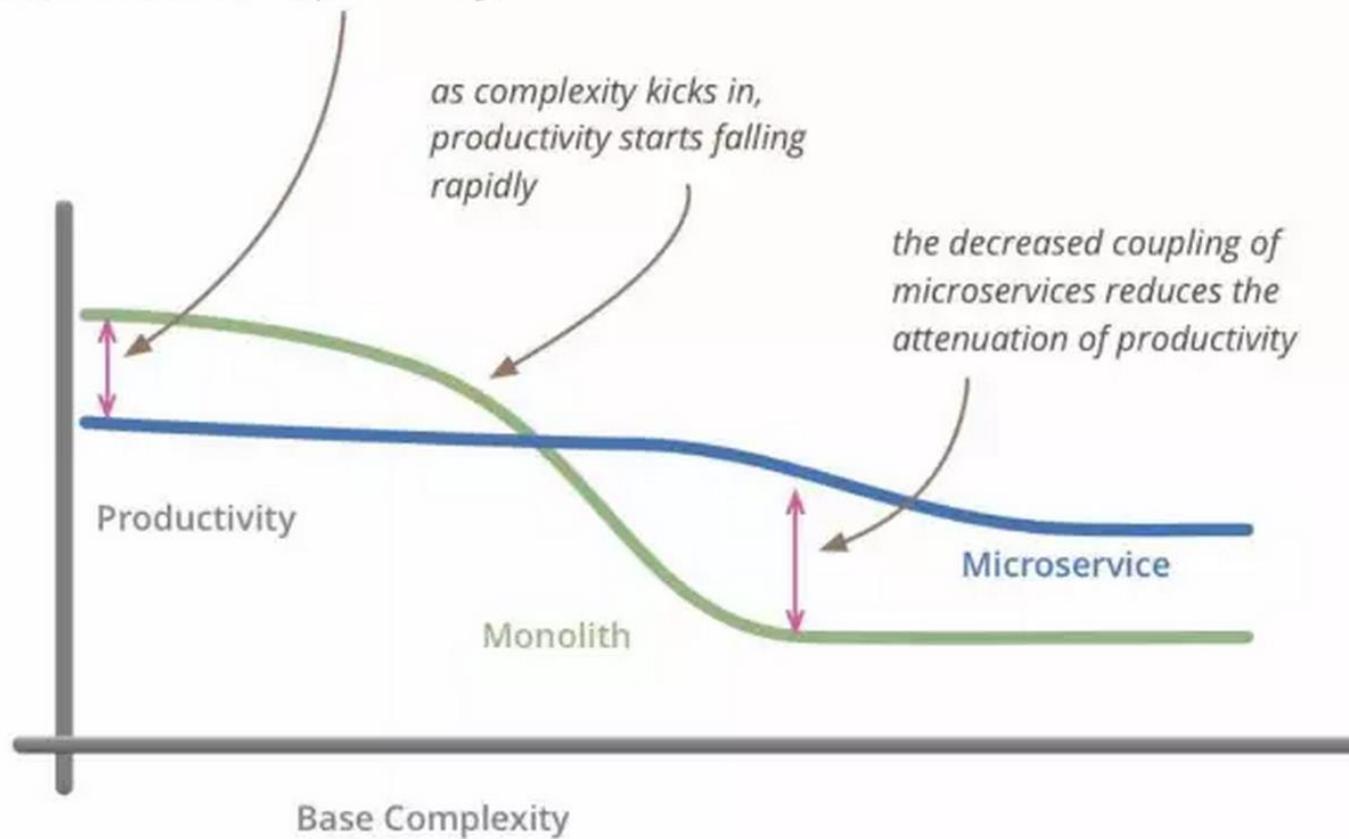
高可控性



没有银弹

for less-complex systems, the extra baggage required to manage microservices reduces productivity

什么时候应该使用微服务？



but remember the skill of the team will outweigh any monolith/microservice choice

容器和微服务-完美的结合

Microservices and containers?

微服务：一种软件技术架构

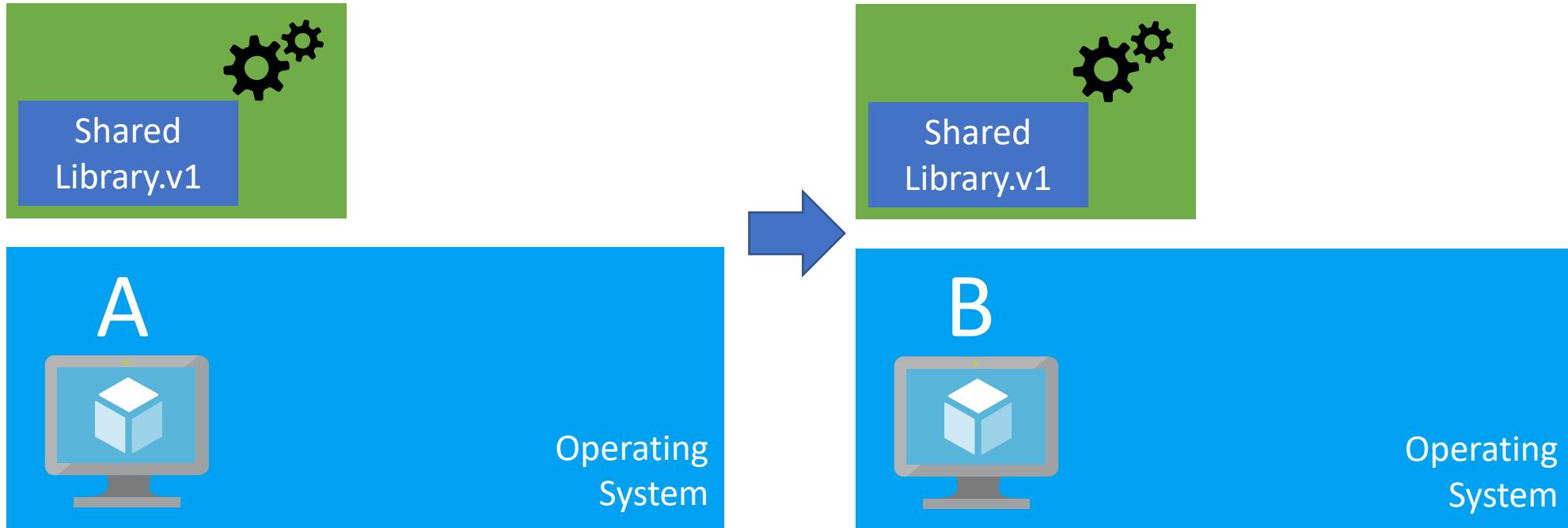
容器：可以在微服务实现过程中的实现方式

通常，每一个服务使用一个容器

容器	小	隔离性	快且密集	绿色部署
微服务	小	独立	分布式特性	快速方便的部署

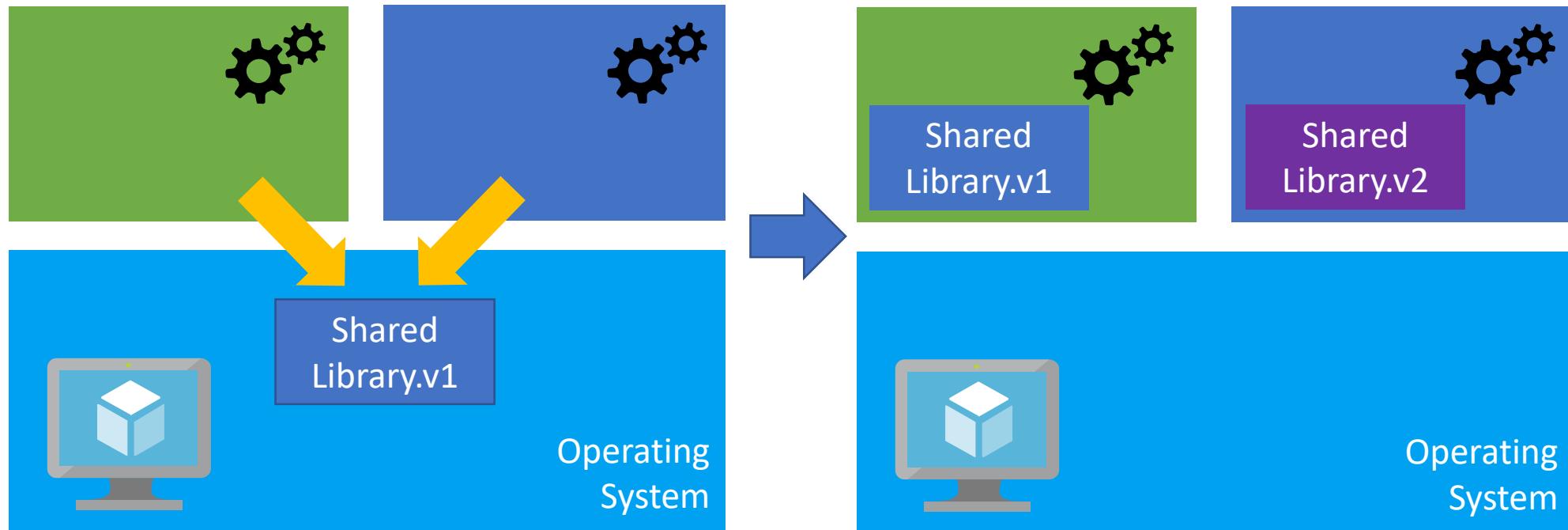
容器特性

- 应用程序打包和部署的机制

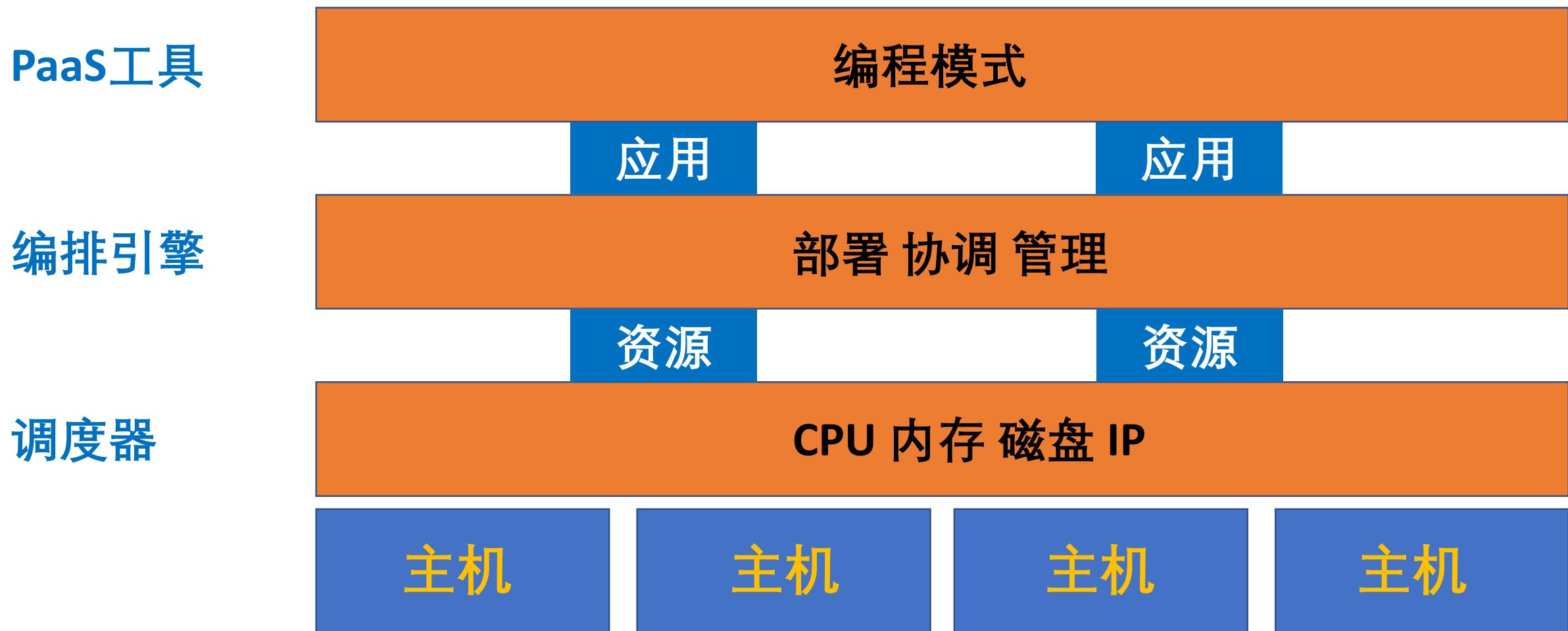


容器特性

- 隔离性环境，清晰的边界



云端微服务应用部署架构解析



集群和编排引擎

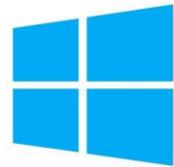
Cluster

- 由一组计算机节点组成，可以被看作一个单独的系统
- 由网络互联
- 用于高性能分布式计算

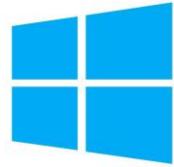
Orchestrators (Schedulers)

- 在一个集群中分配任务或者分配容器
- 在服务或容器失效时重启
- 基于资源的消耗重新分配服务或者容器
- IaaS: 网络 存储 负载均衡
- PaaS: 发现 缩放 容错 监控 安全

Azure容器生态



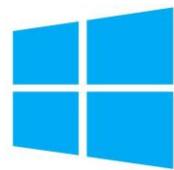
Hyper-V
Container



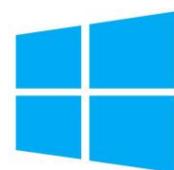
Windows Server
Container



Docker



Windows
Container



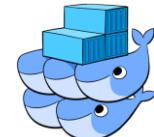
Nano
Server



Azure Marketplace



Azure Resource Manager



Docker Swarm



kubernetes



DC/OS



Deis



Service Fabric

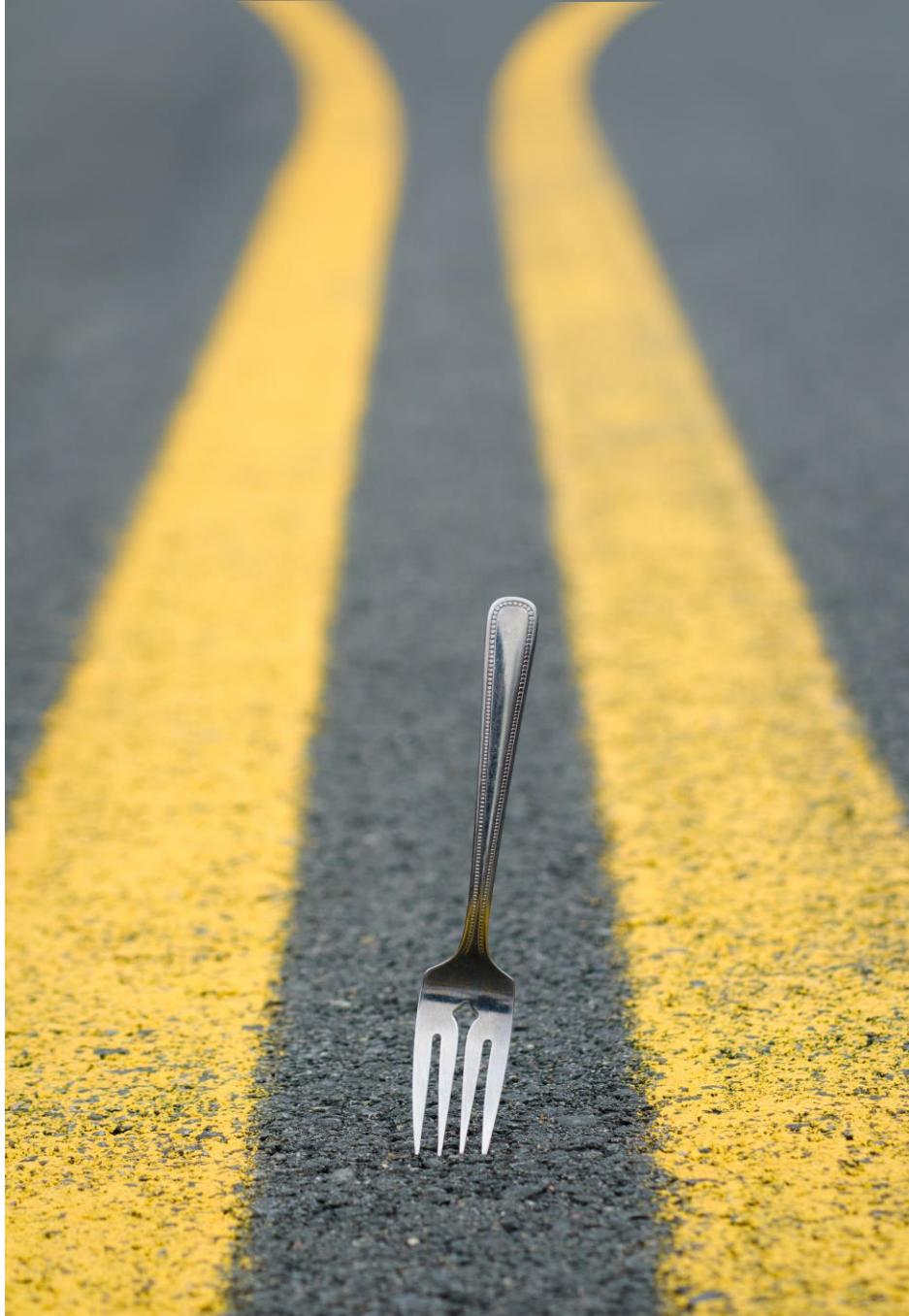
容器化

编排工具

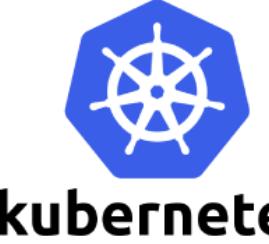
PaaS工具

- Demo
- 部署windows container 到k8s集群

持续集成持续交付 CICD



Spinnaker



<http://aka.ms/Jenkins-on-azure>

- Thanks