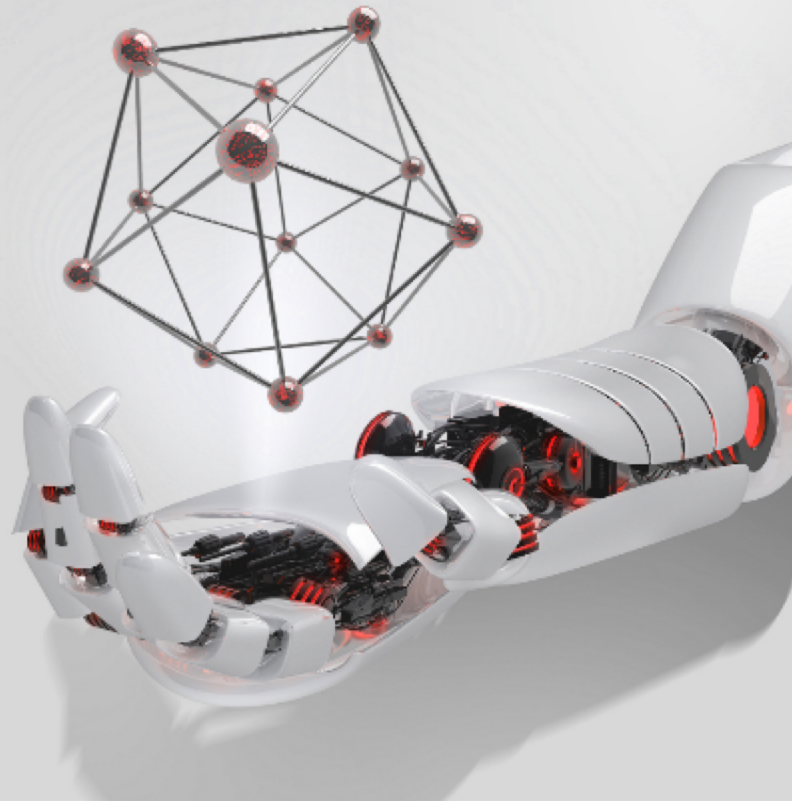


# 快速微服务化编程体验

部门名称：开源软件能力中心

作者：巨震、杨波

日期：2018/10/29

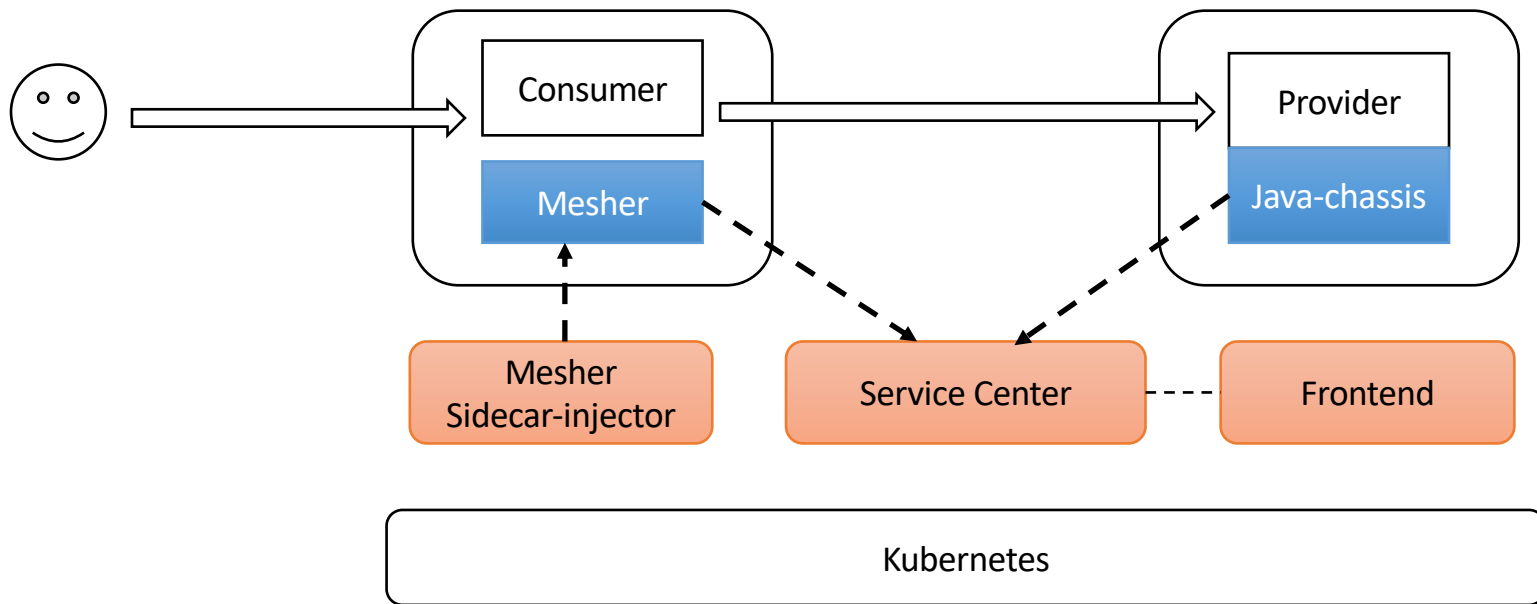


# 目录

---

1. 案例简介
2. Provider开发
3. Consumer开发
4. Kubernetes部署
5. 测试与验证

# 快速微服务开发案例



# Provider开发

- 访问start.servicecomb.io，填入Group和Artifact，下载模板工程。
- 解压模板工程，导入IDE（idea/eclipse等）
- 修改microservice.yaml文件中的注册中心地址
- 使用SpringMVC方式开发应用
- 开发完成后打包成docker镜像

The screenshot shows the start.servicecomb.io web interface. At the top, there's a navigation bar with the text "SERVICOMB SPRING INITIALIZR" and a subtext "bootstrap your application now". Below this, there's a form to generate a project. The form has a header "Generate a" followed by a dropdown menu set to "Maven Project", the word "with", another dropdown menu set to "Java", and "and Spring Boot" followed by a dropdown menu set to "1.5.12".

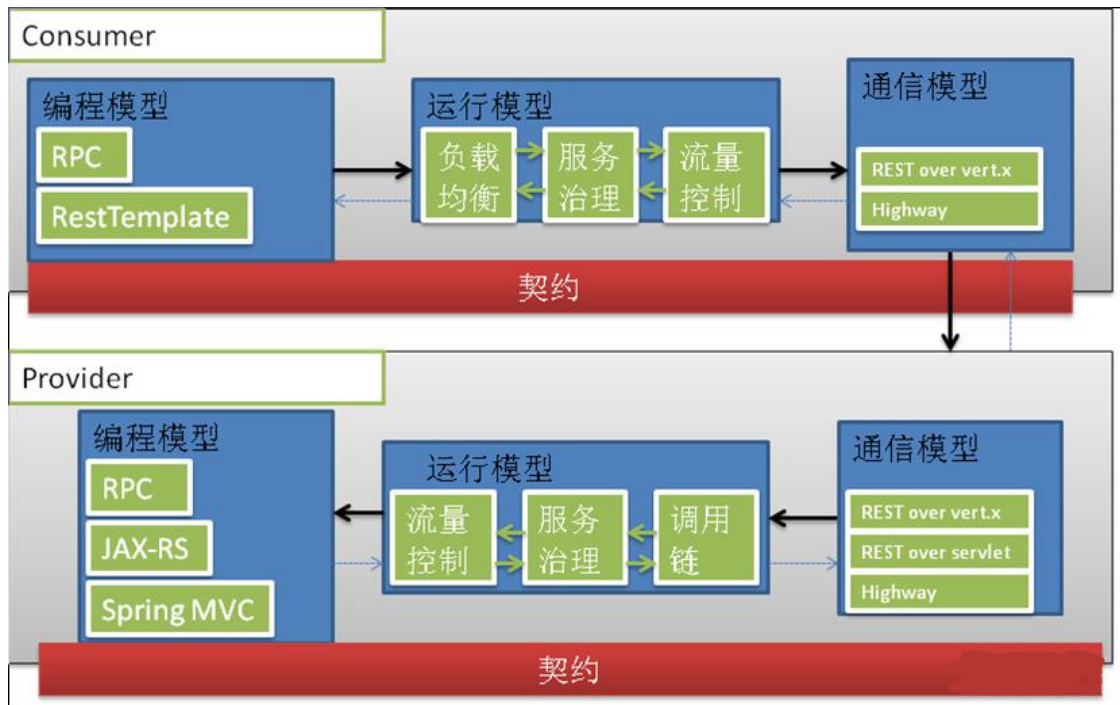
The form is divided into three main sections:

- Project Metadata:** Contains fields for "Artifact coordinates" (Group: demo.foo.bar, Artifact: demo).
- Dependencies:** Contains a search box for dependencies (Web, Security, JPA, Actuator, Devtools...) and a "Selected Dependencies" list with "ServiceComb" selected.
- ServiceComb Parameters:** Contains fields for "Service Name" (HelloServiceComb), "Service Version" (0.0.1), "ServiceCenter Address" (http://127.0.0.1:30100), "REST listen address" (0.0.0.0:9080), "Highway listen address" (0.0.0.0:9090), and "Governance" options (Loadblance, Flowcontrol, CircuitBreaker, Tracing).

At the bottom right, there is a green button labeled "Generate Project" with a keyboard shortcut "alt + G".

# Java-chassis SDK原理

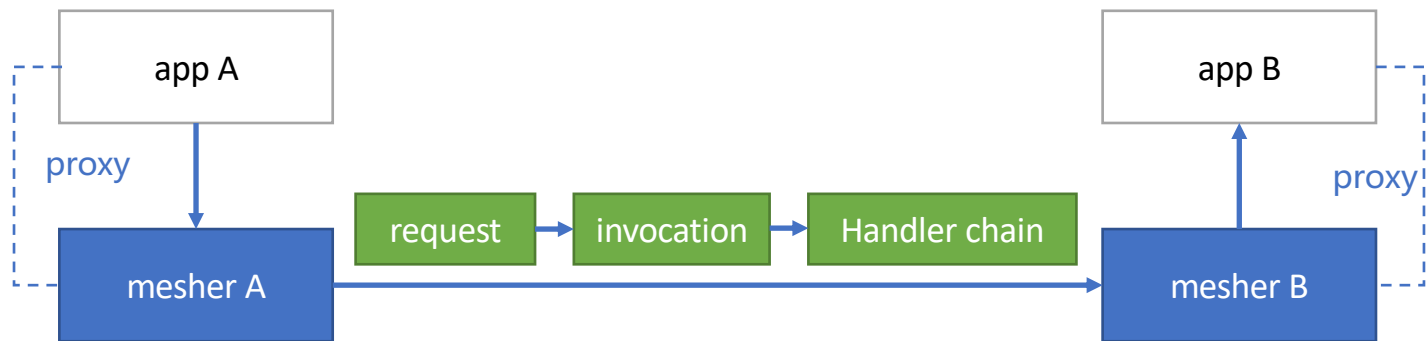
- Provider与Consumer具有完全一致的开发体验
- 通信模型与编程模型隔离，适应不同业务场景需求
- 运行模型支持灵活扩展，便于对接外部系统



# Consumer开发

- 开发业务逻辑（不涉及SDK、依赖等）
- 构建Docker镜像

# 代码0侵入：Mesher基本工作原理



# 快速部署：sidecar-injector原理

## Kubernetes AdmissionWebhook

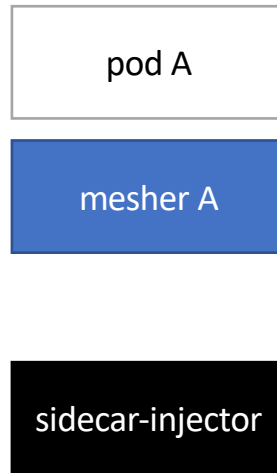
满足条件：

- Kubernetes 1.9 or later
- MutatingAdmissionWebhook, ValidatingAdmissionWebhook开启
- namespace, configmap, mutatingwebhookconfigurations访问权限

服务配置：

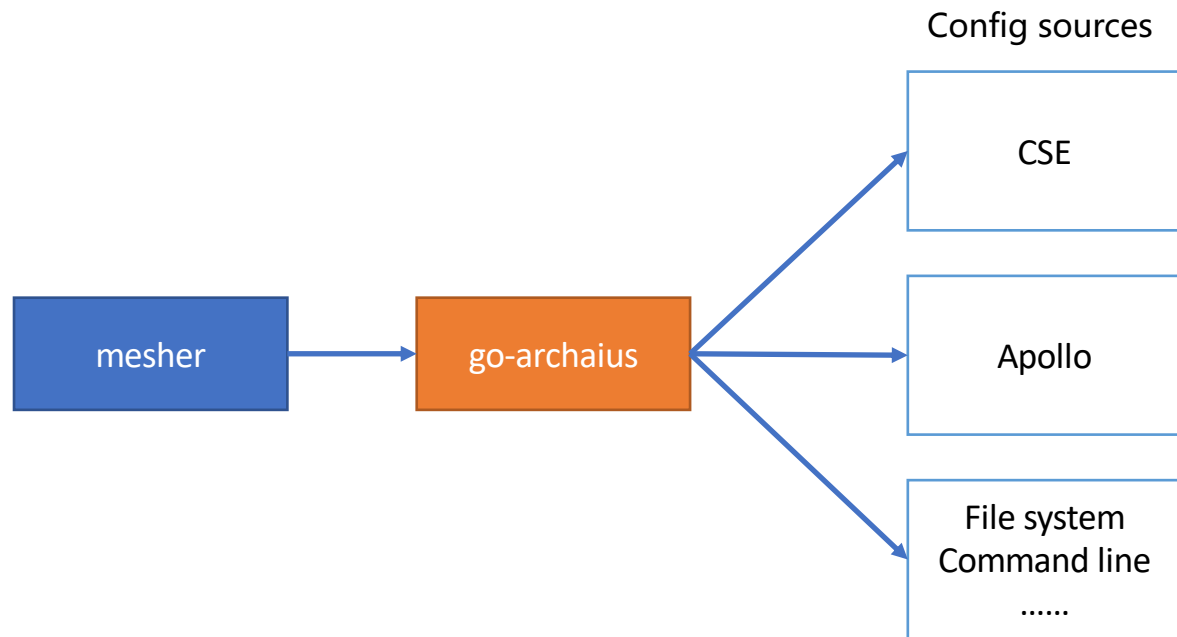
Pod Spec注解：`sidecar.mesher.io/inject: yes`

Namespace标签：`kubectl label myns sidecar-injector=enabled`





# 灵活配置：go-archaius



# Kubernetes部署

## Provider

- deployment
- service

## Consumer

- deployment
- service

## Apollo

- deployment
- service

## sidecar-injector

- deployment
- Service
- Configmaps
- ...

## ServiceCenter

- deployment
- service
- ConfigMap

## Frontend

- deployment
- Service
- configmap

# 测试与验证

- 服务正常访问
- 验证微服务治理：熔断、限流等

# Thank you.

把数字世界带入每个人、每个家庭、  
每个组织，构建万物互联的智能世界。

Bring digital to every person, home and  
organization for a fully connected,  
intelligent world.

**Copyright©2018 Huawei Technologies Co., Ltd.  
All Rights Reserved.**

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. Huawei may change the information at any time without notice.

Huawei Confidential

