

# 2017源创会年终盛典

与电子标准院共建开源标准

12月23日 北京万豪酒店

# Dubbo维护现状与未来规划

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# Agenda

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01

Dubbo Introduction

2

Releases After Maintenance

03

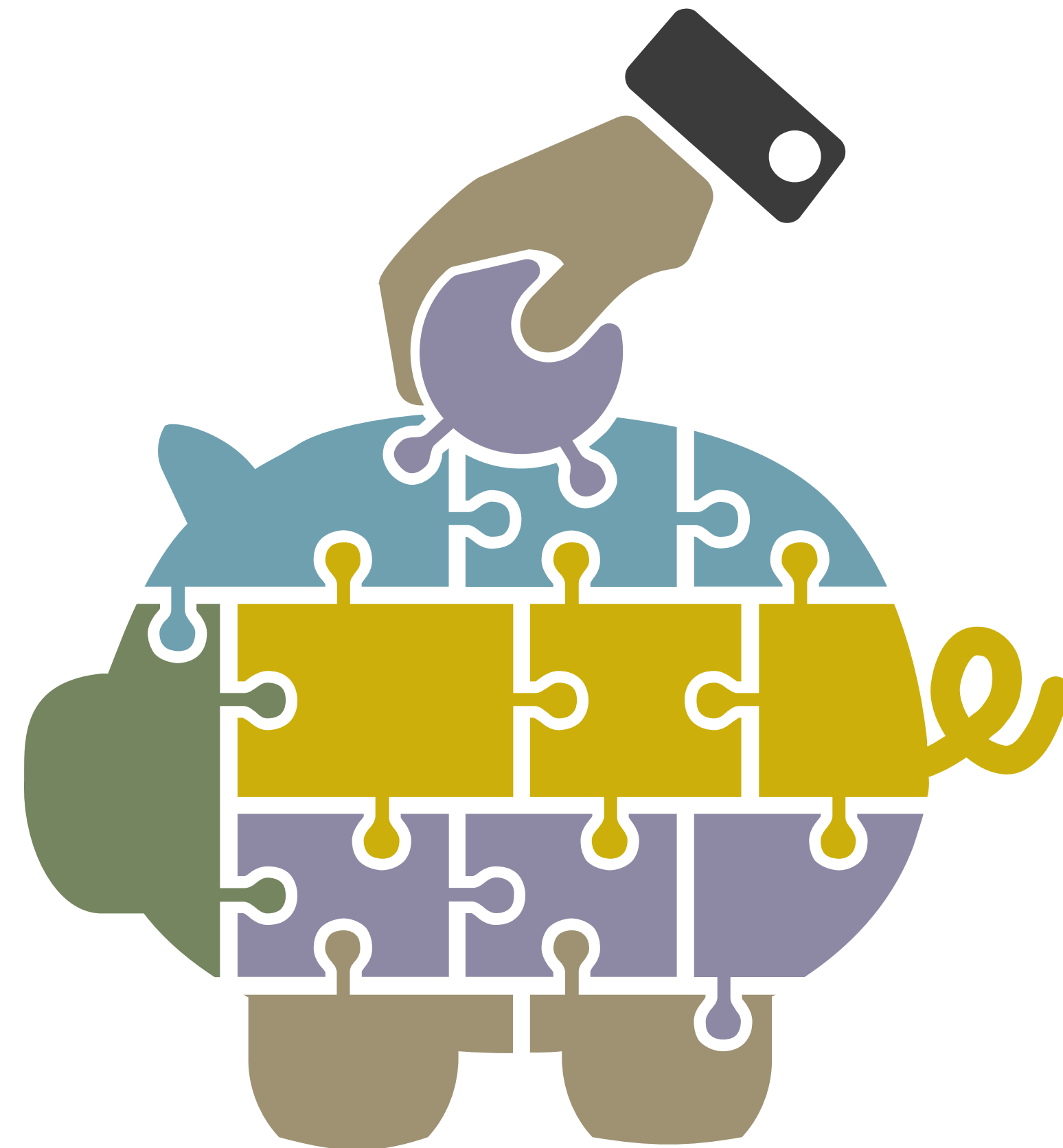
What's Next

04

RoadMap

# What's Dubbo





- ✓ **Open sourced by Alibaba at 2011**  
Dubbo | 'dʌbəʊ | is a high-performance, java based RPC framework open-sourced by Alibaba at 2011. As a RPC and also a service management framework, Dubbo is one of the earliest open source solution.
- ✓ **Production-tested and Proven At Scale**  
Wildly adopted in big internet companies and financial organizations in production for years, including Alibaba, JingDong, Kaola, Qunar, etc.
- ✓ **A high performance RPC framework**  
Based around the idea of defining a service, specifying the methods that can be called remotely with their parameters and return types.
- ✓ **Beyond RPC: Rich features for microservices**  
Provides features that necessary for microservice architecture: automatic service registration & discovery, fault tolerance, load balancing, traffic management...

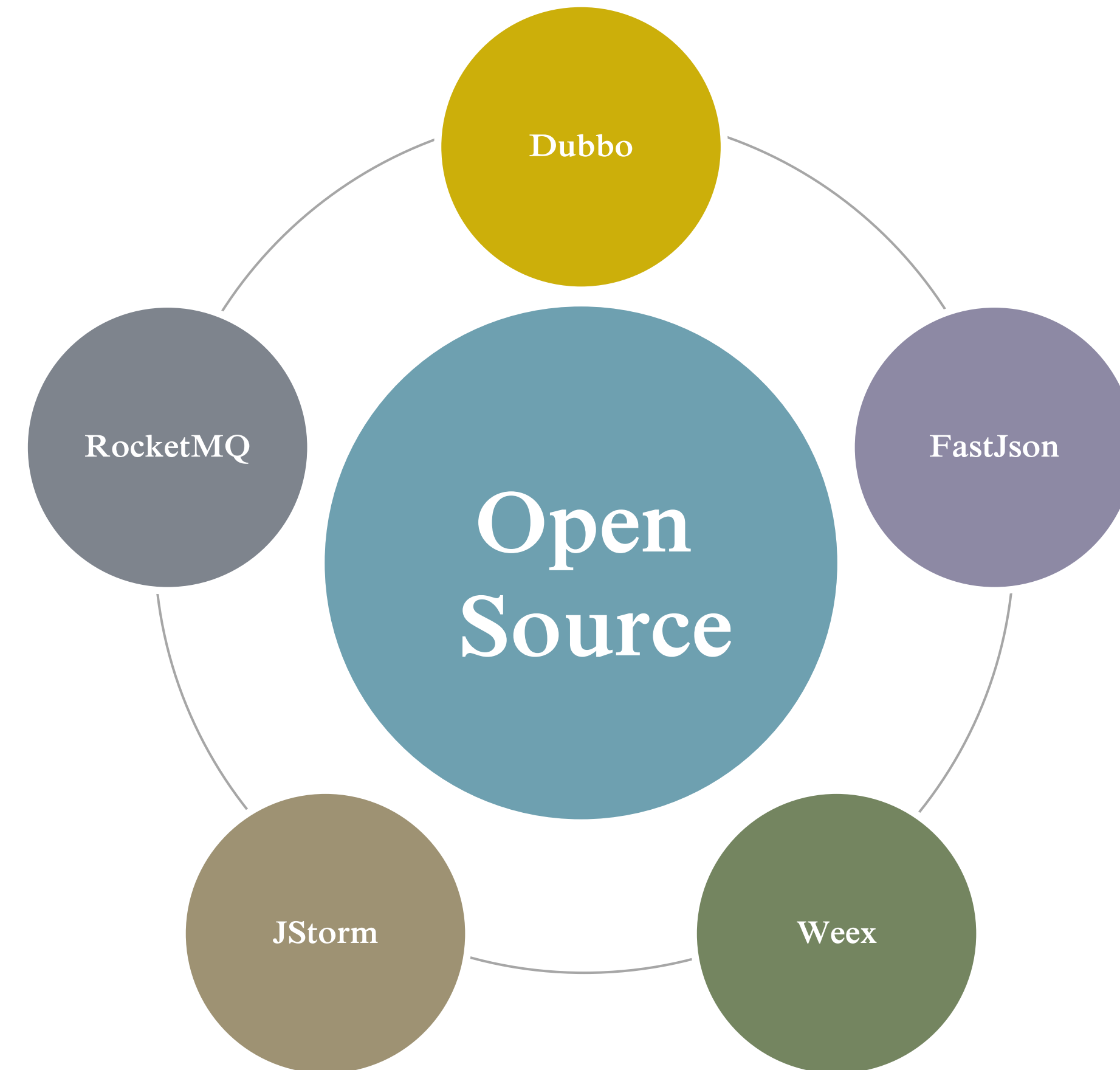


# Dubbo in practice



# Why maintain dubbo?

-  来自社区声音  
Increasing requirements and voices of dubbo in community.
-  拥抱开源  
Alibaba is embracing the open source community
-  回馈社会  
Open source is an important way for alibaba to feedback.
-  融合开放  
Import from community, export internal experiences





# How Dubbo Works

0

## Service Export

Provider export the services and listen on specific TCP port.

1

## Service Registry

Provider register service info to registry: ip, port and other metadata

2

## Service Subscribe

Consumer subscribe to services it cares, and try pull service list first.

3

## Service Discovery

When service addresses change, registry notify Consumer of new address list.

4

## Service Invoke (RPC)

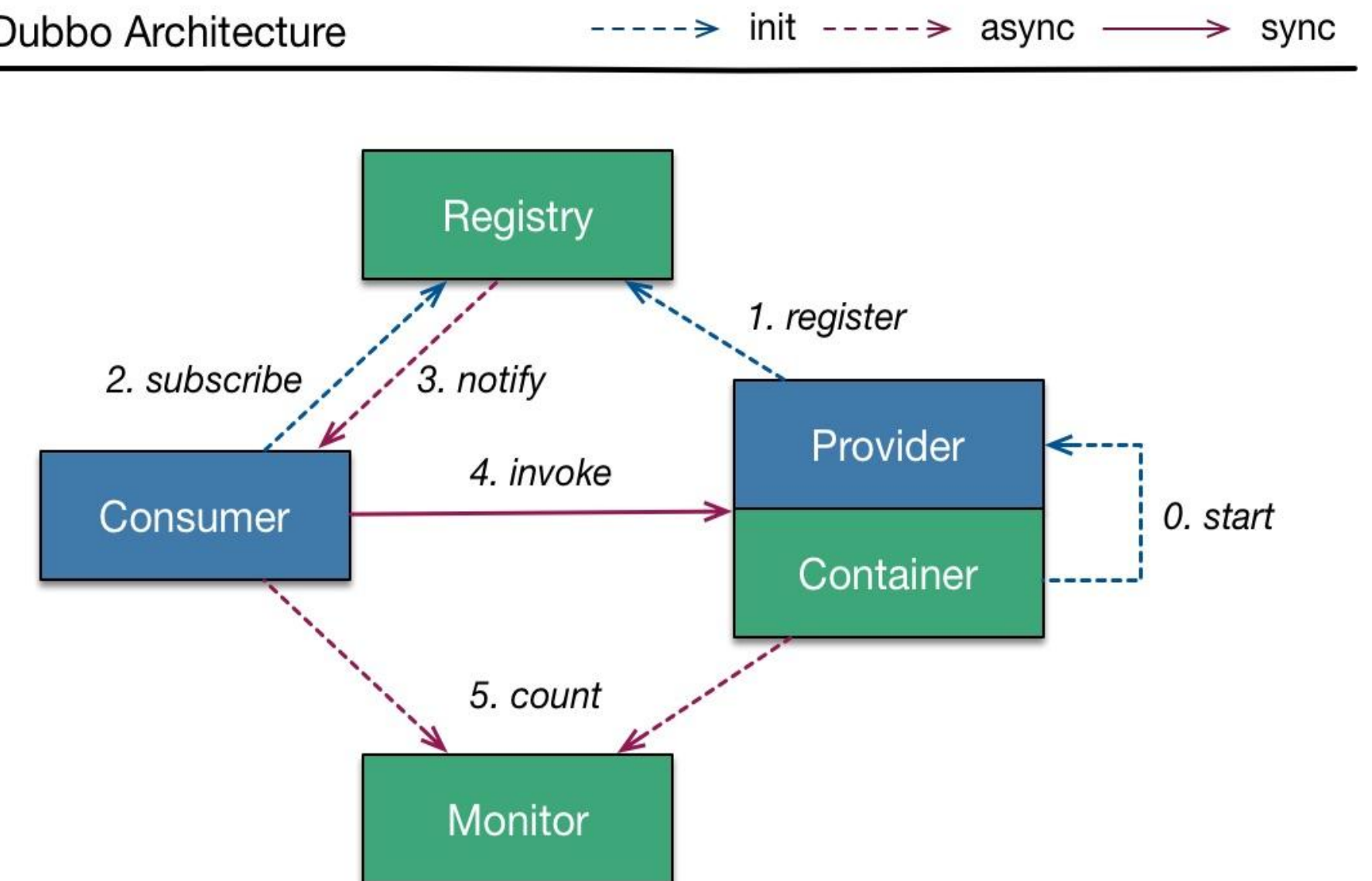
Pick a service provider according to loadbalance and routing policy, invoke directly.

5

## Monitor

Statistics between consumer and provider are collected and displayed by Monitor

Dubbo Architecture



# Key Features

## Transparent RPC

Local interface proxy make transparent remote call

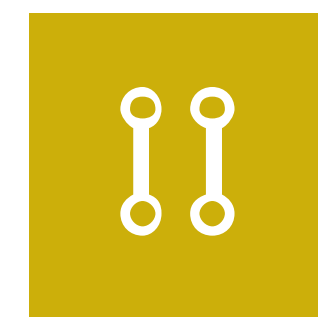


## Version & Group

Different implementations can be distinguished by group;  
Version can be used for service definition upgrade.

## Service Discovery

Service address are registered and discovered automatically



## Multiple Protocols

Multiple RPC Protocols: dubbo, hessian, thrift, RMI ;  
Multiple Serialization Protocols: hessian2, json ...

## Runtime Traffic Management

Support customized routing rules, drop-in flow control policies, failover and auto fault detection



## Soft LoadBalance

Providing random, consistenthash, leastactive, weight based roundrobin, etc.

## Dynamic Configuration

Rich configuration properties :timeout, threadpool, weight, etc., support dynamic change at runtime.

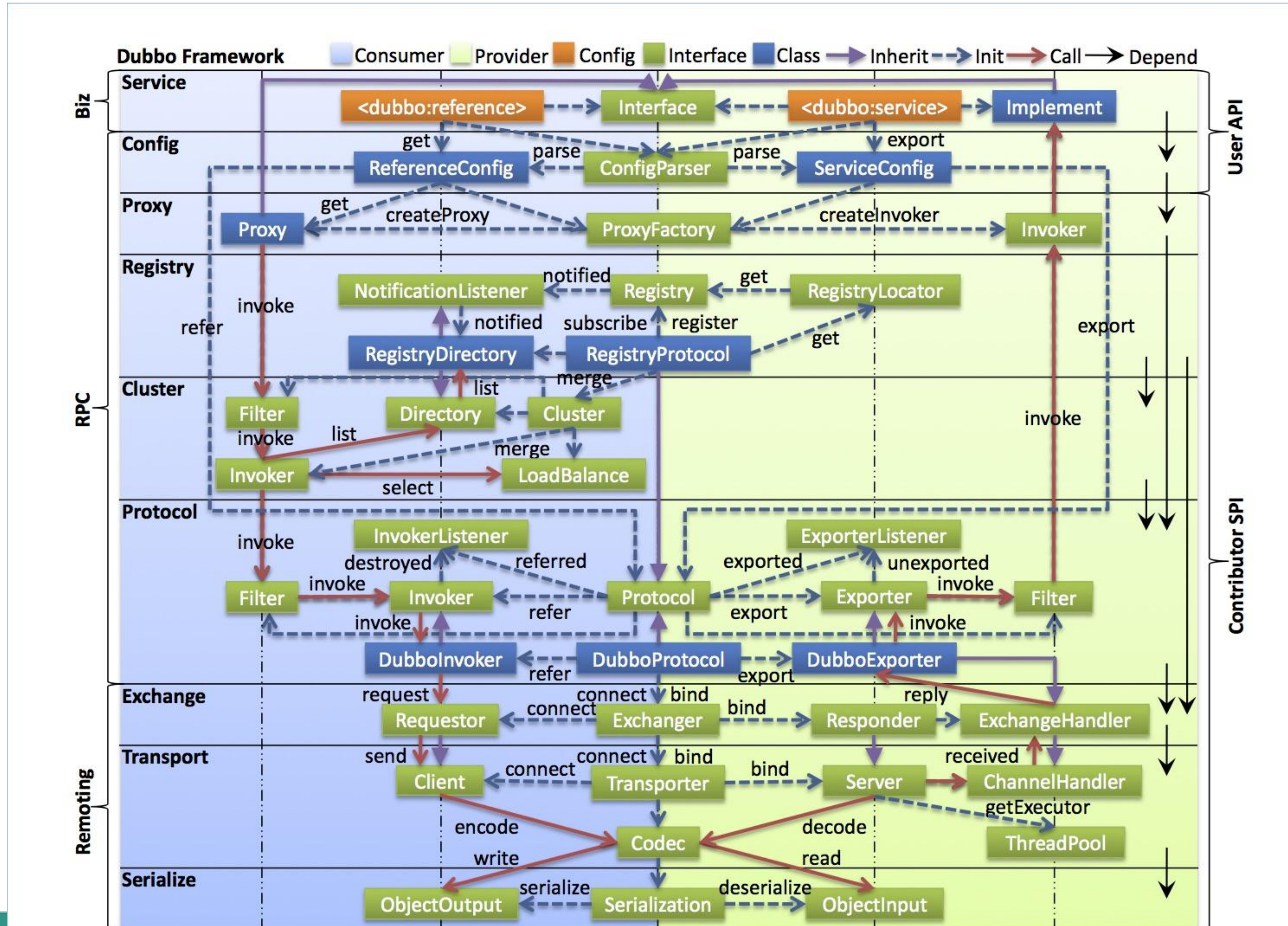


## Maintenance Friendly

Powerful control panels: dubbo-admin and monitor  
OPS, telnet commands.



# Architecture





# Dubbo vs Spring Cloud?



Zookeeper, Redis ...

Eureka, Consul ...

Binary RPC / TCP

REST / HTTP

Many policies

ZUUL, Ribbon

Token, Registry

Spring Cloud  
Security

Dubbo-monitor

Spring Boot Admin

Fallback, Failover

Hystrix

Circuit Breaker

Dynamic Configuration

Registry

Spring Cloud Config

Gateway

✘

ZUUL

Tracing

✘

Spring Cloud Sleuth

Message BUS

✘

Spring Cloud BUS

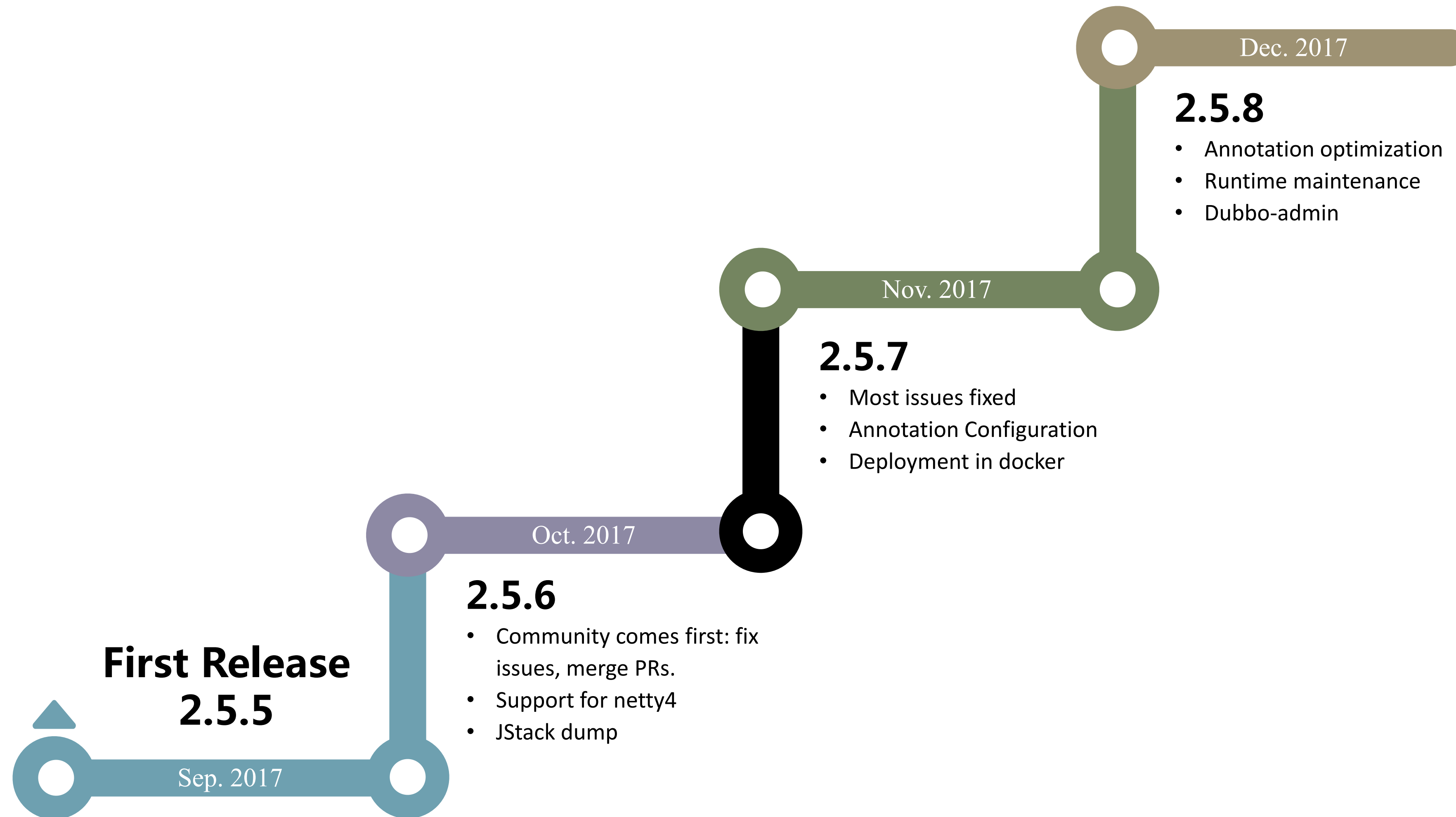
Batch

✘

Spring Cloud Batch

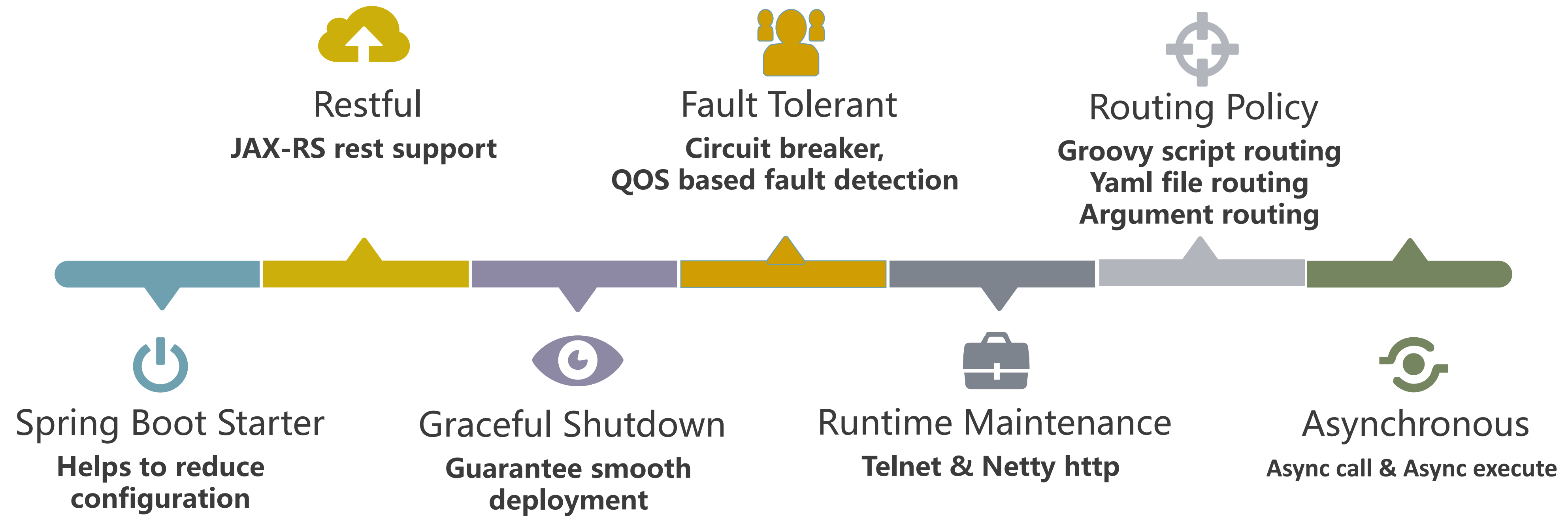
# What have we done?

Community comes first

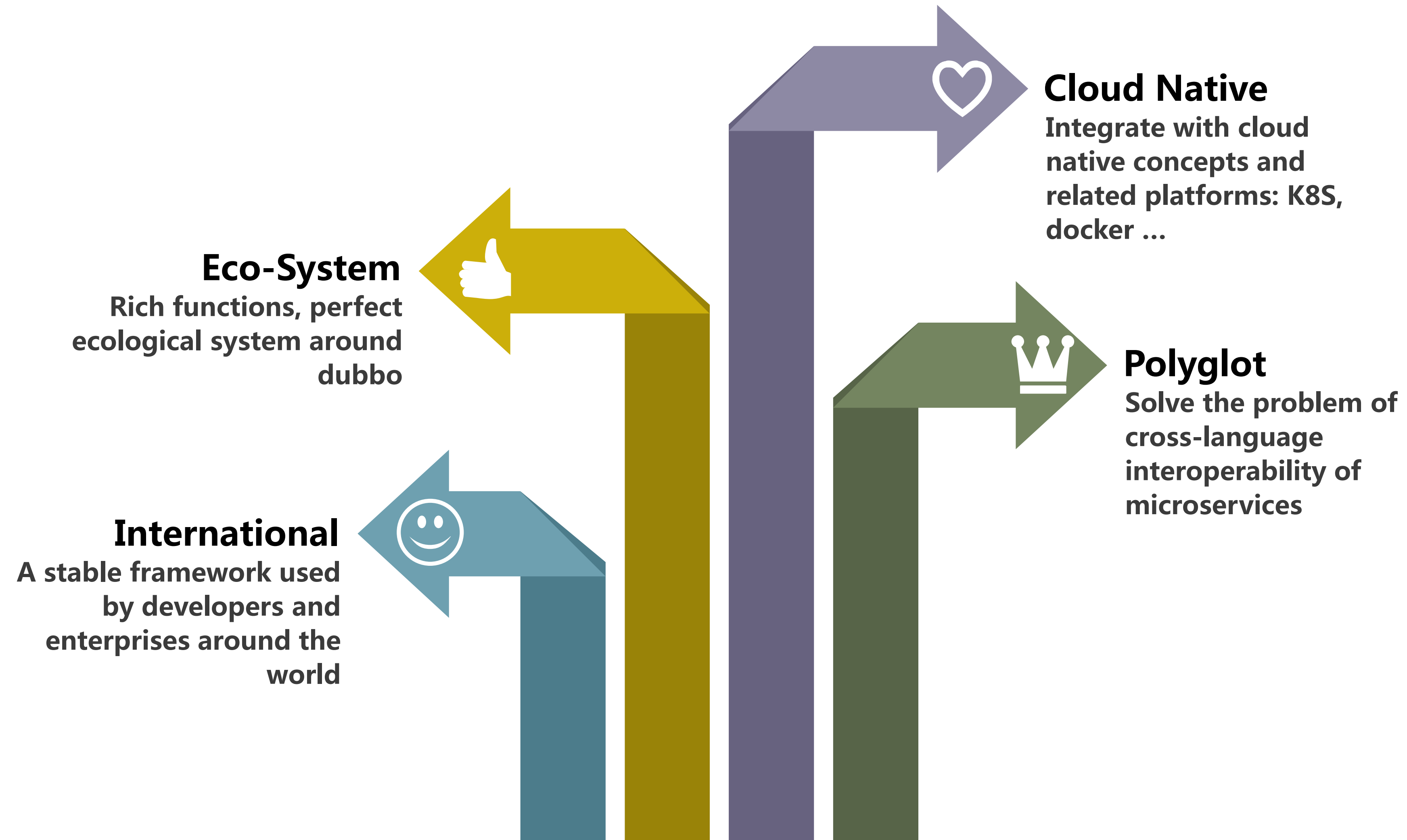




# Coming up soon



# Long-term Plan



# Internationalization in Progress

01

## Documentation & Website

- <http://dubbo.io> edit with english.
- All docs has has been translated into english.

02

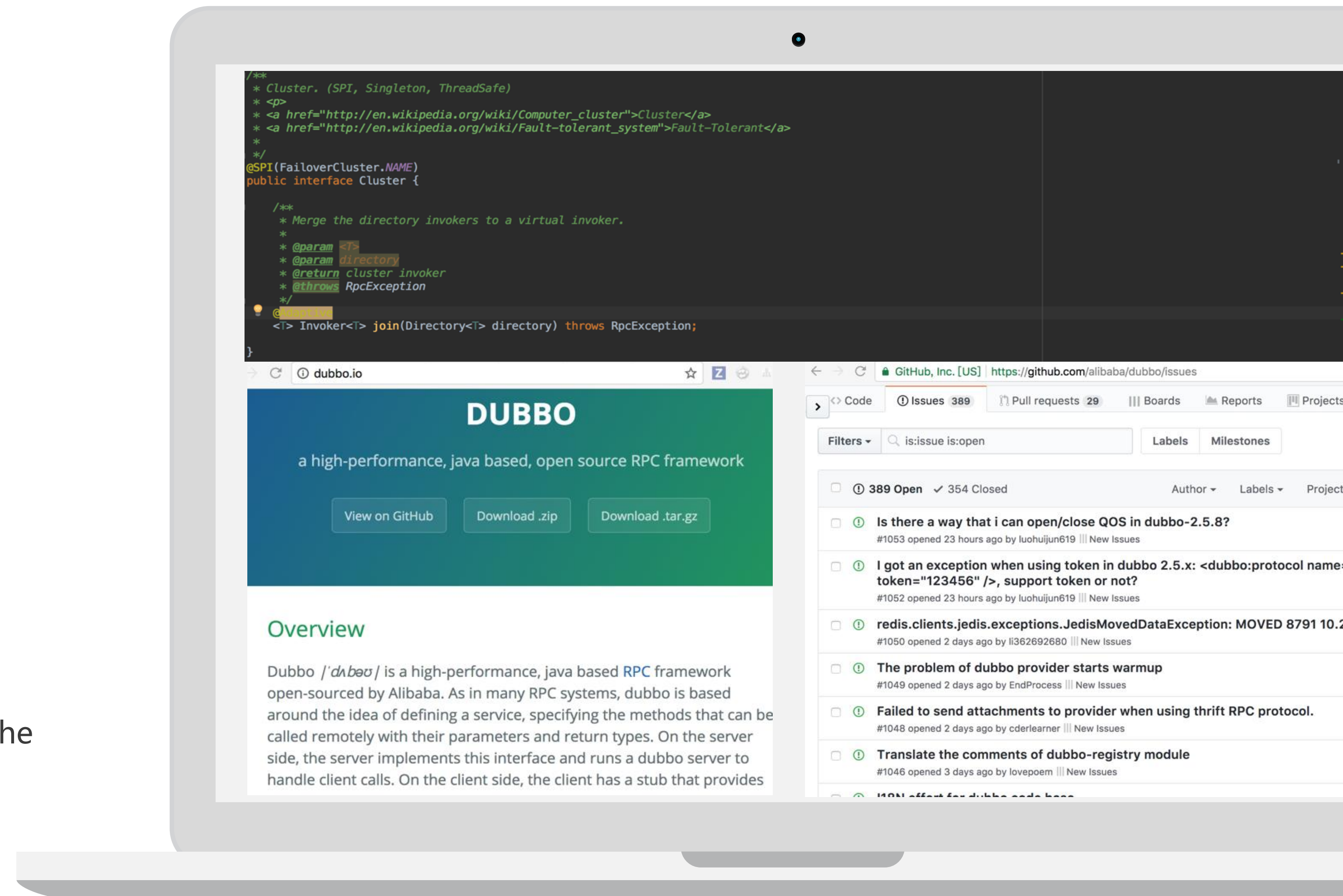
## Code Base

- Comments, logs and javadocs has been translated into english.
- Unified style of code, comment and license.

03

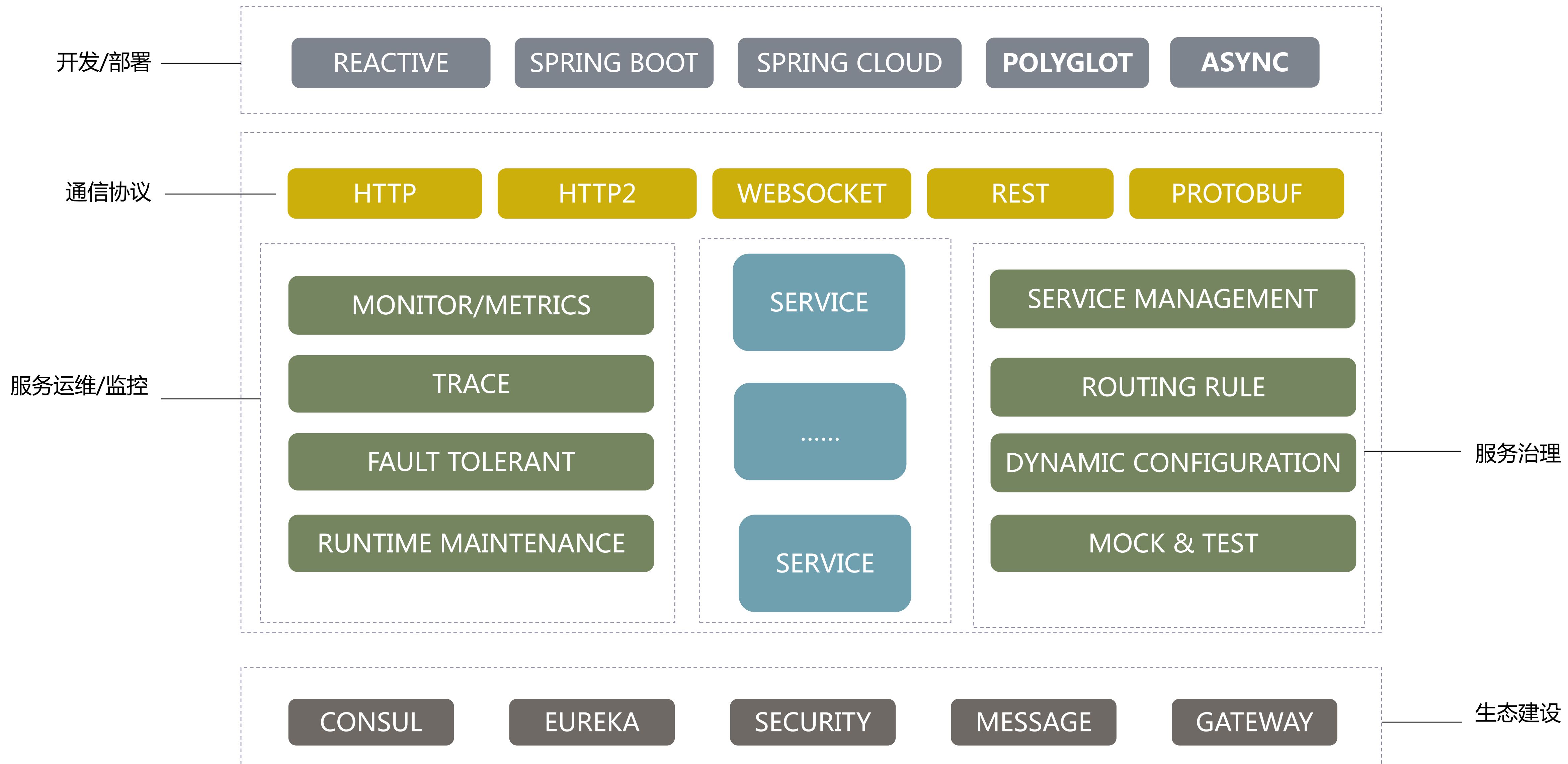
## Community & Promotion

- An active community: github, mail group, gitter
- Noticed by developers and communities in the world:  
<http://www.baeldung.com/dubbo>





# Eco-System



# Cloud Native



**Container & Orchestration: Kubernetes, Mesos, Swarm**

**Service Discovery: Consul, ZK, etcd, eureka**

**Service Management: Istio, envoy, linkerd, spring cloud**

**Infrastructure: Aliyun, AWS, GCP, etc.**

# Contribution

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## COMMUNITY

Github Issue: <https://github.com/alibaba/dubbo/issues>

Gitter: <https://gitter.im/alibaba/dubbo>

User Mail Groups: [dubbo@googlegroups.com](mailto:dubbo@googlegroups.com)



## TRANSLATION

Documentation: <https://github.com/alibaba/dubbo/issues/948>

Code Base: <https://github.com/alibaba/dubbo>

Blogs: <http://www.baeldung.com/dubbo>



## CODE & DESIGN

Pull Request: <https://github.com/alibaba/dubbo/pulls>

Dubbo-Admin

Dubbo-Monitor



# Thank You