dubbo
 TCP
 Hessian

r**mi** JDK rmi Serializable java

TCP rmi

Common-Collections java

• webservice WebService CXF

WebService HTTP

• http Http Spring HttpInvoke

HTTP

JS

hessian Hessian HTTP Servlet
 Dubbo Jetty Hession

HTTP Hessian

• memcache memcached RPC

• redis redis RPC

## Dubbo

Dubbo

• Dubbo

•

# Dubbo

Multicast
 Multicast

• **Zookeeper** Zookeeper

Zookeeper watch

redis redis key/Map key
 Map key URL value redis

Simple

| • | Random LoadBalance:       |     |      |    |     |
|---|---------------------------|-----|------|----|-----|
| • | RoundRobin LoadBalance:   |     |      |    |     |
| • | LeastActive LoadBalance:  |     |      |    |     |
| • | ConstantHash LoadBalance: | :   | Hash |    |     |
|   |                           |     |      |    |     |
| • | Dubbo                     |     |      |    |     |
| • | Dubbo                     |     |      |    | RPC |
|   |                           |     |      |    |     |
|   | Spring                    |     |      |    |     |
| • | Dubbo                     |     |      |    |     |
| • |                           |     |      |    |     |
|   |                           | API |      |    |     |
| • |                           |     |      | F5 |     |
|   |                           |     |      |    |     |
| • |                           |     |      |    |     |
|   |                           | IF  | )    |    |     |
|   |                           |     |      |    |     |

RemotingNIO

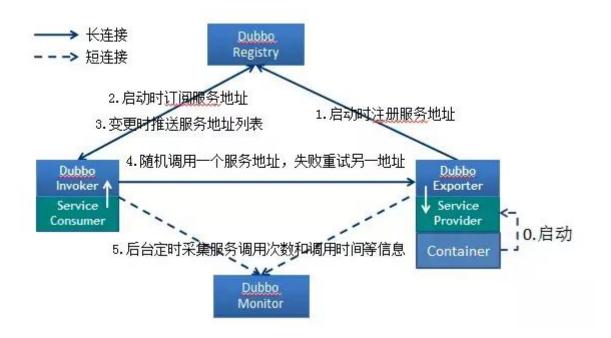
" " "

Cluster

Registry

# Dubbo

| 组件角色      | 说明                  |
|-----------|---------------------|
| Provider  | 暴露服务的服务提供方          |
| Consumer  | 调用远程服务的服务消费方        |
| Registry  | 服务注册与发现的注册中心        |
| Monitor   | 统计服务的调用次调和调用时间的监控中心 |
| Container | 服务运行容器              |



Provider( )

• IP

Consumer(

Consumer

Consumer

Provider

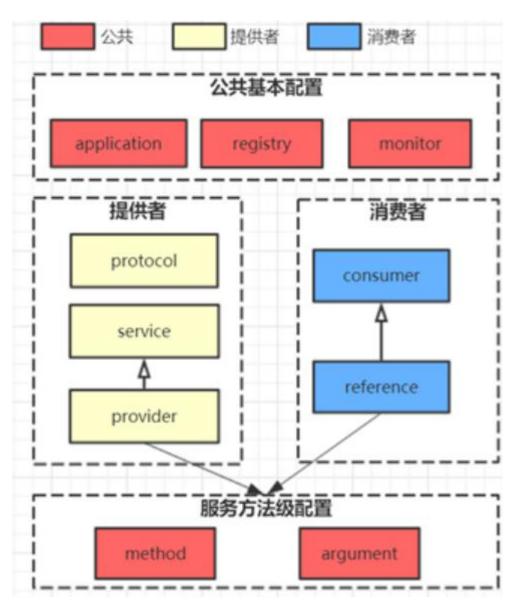
Consumer

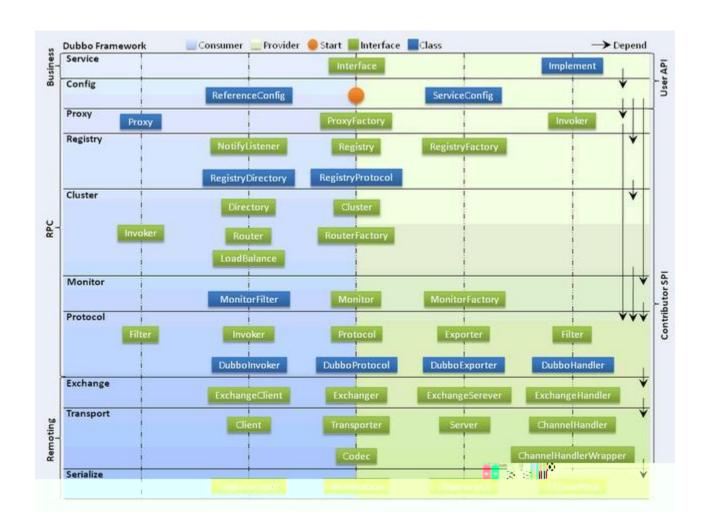
Consumer Provider

.

•

•





- Service
- ConfigReferenceConfig
- ProxySkeleton

RegistryURL

Cluster

Invoker

Monitor RPC

Protocol RPC Invocation Result

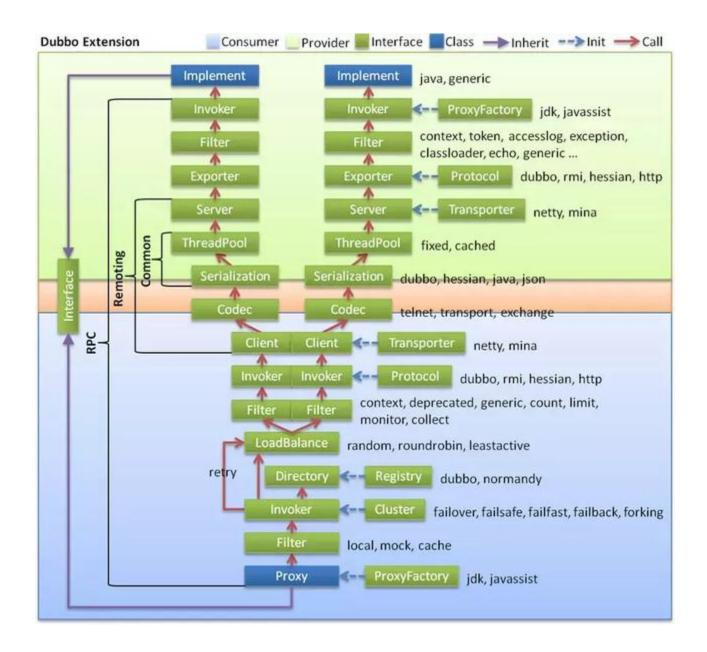
Protocol Invoker Exporter

Exchange

Request Response

Transport mina netty

Message



dubboNIO

TCP Hessian

rmi JDK rmi

Serializable java

TCP TCP

rmi Common-Collections

java

webservice WebService CXF

WebService HTTP

httpHttpSpring

HttpInvoke HTTP

JS

hessian Hessian HTTP Servlet

Dubbo Jetty Hession

HTTP Hessian

memcache memcached RPC

redis redis RPC

dubbo

dubbo

Dubbo

Multicast

Zookeeper

Zookeeper

Zookeeper watch

redis redis key/Map key

Map key URL value

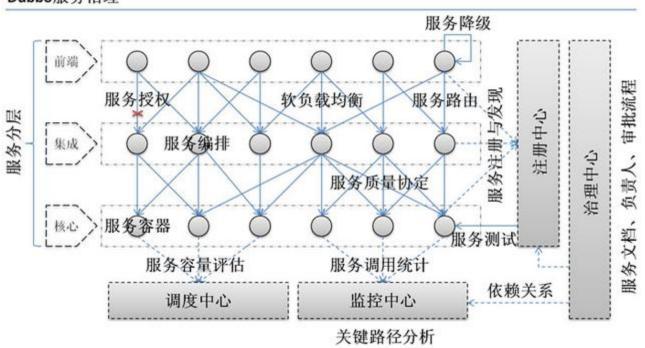
redis /

Simple

Dubbo

Zookeeper

# Dubbo服务治理



• URL

.

Dubbo dubbo zookeeper Spring Dubbo Spring Dubbo Spring API Dubbo Dubbo Spring Schema ? Dubbo NIO Netty

- Random LoadBalance:
- RoundRobin LoadBalance:

|   | LeastActive LoadBalance:       |  |
|---|--------------------------------|--|
|   | ConstantHash LoadBalance: Hash |  |
|   |                                |  |
|   | Random                         |  |
|   | Dubbo                          |  |
|   | Failover Cluster               |  |
| • |                                |  |
|   | Failfast Cluster               |  |
| • |                                |  |
|   | Failsafe Cluster               |  |
| • | Failback Cluster               |  |
|   | Failback Cluster               |  |
|   | Forking Cluster                |  |
|   |                                |  |

•

forks="2"

Broadcast Cluster

•

Dubbo

Failover Cluster

Dubbo

Hessian

Duddo FastJson Java

Dubbo

Dubbo

• Dubbo

.

dubbo

Dubbo

Dubbo Token

Dubbo

Dubbo Dubbox

dubbox dubbo restful

Dubbo Spring Cloud

Dubbo SOA

Spring Cloud

Spirng

Spirng Boot Dubbo

Spirng Cloud

Dubbo Spring Cloud

|        | Dubbo     | Spring Cloud                 |
|--------|-----------|------------------------------|
| 服务注册中心 | Zookeeper | Spring Cloud Netflix Eureka  |
| 服务调用方式 | RPC       | REST API                     |
| 服务网关   | 无         | Spring Cloud Netflix Zuul    |
| 断路器    | 不完善       | Spring Cloud Netflix Hystrix |
| 分布式配置  | 无         | Spring Cloud Config          |
| 服务跟踪   | 无         | Spring Cloud Sleuth          |
| 消息总线   | 无         | Spring Cloud Bus             |
| 数据流    | 无         | Spring Cloud Stream          |
| 批量任务   | 无         | Spring Cloud Task            |

Dubbo Netty NIO

TCP Hession RPC

SpringCloud Http +Rest

Http

REST RPC