Apache ServiceComb
Introduction of Microservice Innovation Project

[Github ] https://github.com/apache?q=servicecomb
Continuous Innovation to Address User Pain Points

Microservice contract tools
Helps enterprise users achieve unified service models and meets data integration standards.

Distributed system configuration center
Manages complex distributed system configurations through easy-to-understand data and portals.

Heterogeneous communication in the service center
Enables collaboration and governance between microservice applications developed based on multiple technology stacks.

Multi-language runtime environment
Develops and deploys microservices in the same domain using multiple programming languages.

Microservice authentication
Meets performance and security requirements in the trend widely accepted and certified by third-party organizations.

Apache ServiceComb

[Github ] https://github.com/apache?q=servicecomb
Mesher - Heterogeneous, multilingual, non-intrusive microservice framework

A high-performance service grid framework based on Golang, supporting non-intrusive business code to implement microservice transformation, and interoperating with popular microservice framework governance.

- Github link
  https://github.com/apache/servicecomb-mesher

- Next step
  - Gateway capabilities
  - Fusion ecology such as Istio/Prometheus/Skywalking/…
  - Compatible with heterogeneous infrastructure such as K8S/BareMetal/docker/VM/…
Mesher - Evolution to microservice in multi-language scenarios

- Quick Start
  [Github] https://github.com/apache?q=servicecomb
ServiceComb Toolkit

Provides the ability to convert and verify API, code, and documents, helping users quickly build microservice projects based on popular microservices frameworks and popular programming models, reducing the cost of microservices entry, enabling users to focus on business development, enhance refactoring and development efficiency.

- Github link
  https://github.com/apache/servicecomb-toolkit

- Next step
  - Support one-click production microservice project based on popular microservice framework such as SpringCloud.
  - Support OAI V3
  - Support for toolkit plugin integration into Eclipse & Intellij
Toolkit - One-click generation of microservice project

*Quick Start*

https://github.com/apache/servicecomb-toolkit/blob/master/samples/README-ZH.md
Syncer - Multi service center synchronization tool

Syncer is a multi-service-center synchronization tool designed for large microservice architectures, enabling microservices developed on different technology stacks to exchange data with each other. This project will support cross-cloud data connection.

- **Github link:** [https://github.com/apache/servicecomb-service-center/tree/master/syncer](https://github.com/apache/servicecomb-service-center/tree/master/syncer)

Next step

- Support for dynamic connection clustering
- Support cross-data center capabilities
- Support connecting popular authentication framework
Syncer - Heterogeneous popular service center integration practice

- Quick Start

https://github.com/apache/servicecomb-service-center/tree/master/syncer/samples/multi-servicecenters
Fence - Microservice Authentication Framework

servicecomb-fence provides a microservice authentication framework based on Oauth2.0 and OpenID Connect, helping users quickly build high-performance and secure microservice authentication capabilities.

- Simplified development: allows users to configure permissions using either configuration file or Annotation, and supports separation of permission configuration from code logic.
- Third-party authentication: uses the Open ID protocol to connect to third-party authentication systems such as WeChat and Weibo.
- Secure and efficient: supports hybrid-token authentication and session-based authentication, meeting the performance and security requirements.

- Github link: https://github.com/apache/servicecomb-fence

Quick Start
https://github.com/apache/servicecomb-fence/blob/master/docs/zh_CN/developersGuide.md
Kie - Semantic Distributed System Configuration Center

Kie is used to implement the configuration center for a cloud native distributed system, enabling O&M personnel to manage complex distributed system configurations using understandable data and portals.

- Github link: https://github.com/apache/servicecomb-kie

- The learning cost is high. O&M personnel need to learn the key rule that takes effect only within the team.
- All keys are managed in one type of view, which increases the management cost.
- The ever-increasing definition of rules is becoming more and more complex and unreadable.
- The key design cannot be extended or changed, and the data structure cannot be changed easily.

Timeout (service=serviceB, schema=user, operation=getUser): 10s
OCR_address (environment=test): http://192.168.1.1

Configuration views can be generated from multiple dimensions under such data format design, improving usability and readability.
Open-Source, One-Stop Microservice Solution

Legacy Application Transformation

New Microservice Development

Ecosystem Compatibility

Open-Source, One-Stop Microservice Solution

Cloud Native
- Kubernetes
- etcd

Microservice framework
- Spring Cloud
- Spring Boot

OpenTracing
- Zipkin
- Skywalking

Configuration
- Apollo

ServiceMesh
- Istio

Visualized monitoring
- Prometheus
- Grafana

Communication specification
- OPENAPI
- Swagger

Apache ServiceComb

Quick Start
- Community website
- User manual
- Samples

Core
- Rest (OpenAPI)/RPC
- Configuration center
- Authentication framework
- Service center
- Microservice development framework
- Mesher
- Distributed transaction framework

Development toolkit
- API extraction
- Code generation
- API verification
- Document generation
- Microservice scaffolding

[GitHub] https://github.com/apache?q=servicecomb
Community summoned

For users

Choosing Apache ServiceComb, we will take your approach to WeChat Group/Github Issue-MailGroup seriously:

Every question

Every suggestion

We look forward to working with you to build a community and persevere to solve the microservice problem.

For developers

Expert / is already a microservice developer / is about to join the microservice developer / developer who is simply seeking open source contributions / scholar / student /... and so on,

We look forward to your joining and contribution,

If you are ready to contribute code, please scan the QR code into the group and note the "contribution".

We will work with you on a one-on-one basis.

[Github ] https://github.com/apache?q=servicecomb
Thank you.

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