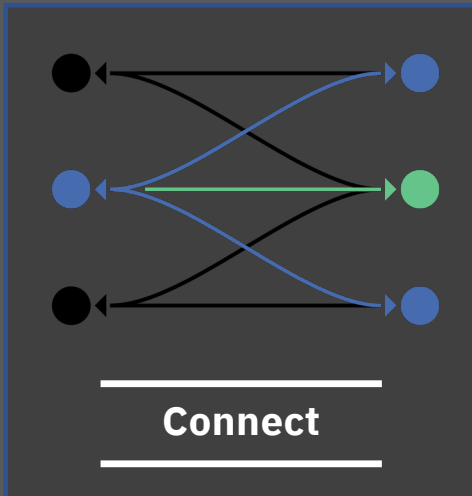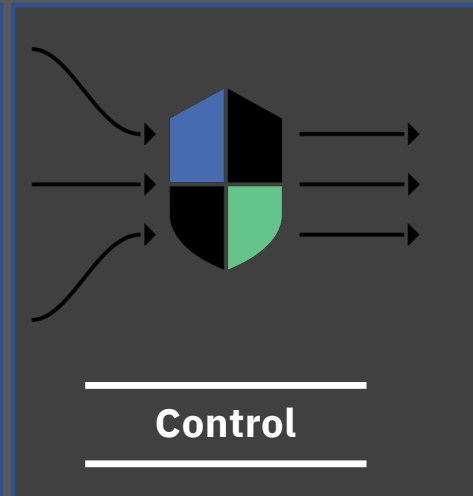# Istio

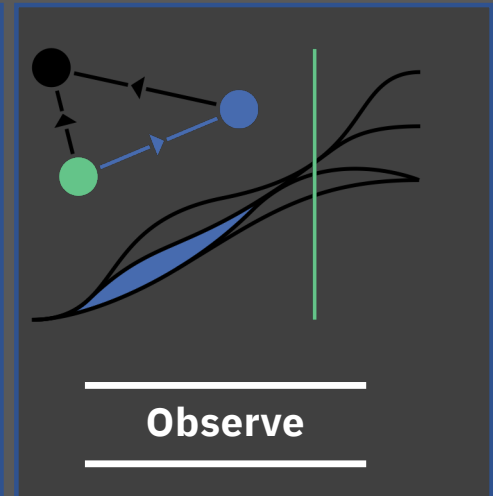Connect, secure, control, and observe services.

Connect

Intelligently control the flow of traffic and API calls between services, conduct a range of tests, and upgrade gradually with red/black deployments.

Secure

Automatically secure your services through managed authentication, authorization, and encryption of communication between services.

Control

Apply policies and ensure they're enforced, and that resources are fairly distributed among consumers.

Observe

See what's happening with rich automatic tracing, monitoring, and logging of all of your services.

Istio

Connect, secure, control, and observe services.

Skills you may just learn:
- Service Mesh
- How to be Teflon
- Large scale project etiquette
- The pull request process
- YAML
- MarkDown
- Continuous integration
- Golang
- Git at the geek level

Fastest growing open source projects by contributors

Kits and frameworks for building apps and websites across languages and platforms are seeing contributor growth this year. Since its 1.0 release in December 2018, flutter/flutter has climbed to #2.*

CHANGE IN CONTRIBUTIONS TO OPEN SOURCE PROJECTS

01	aspnet/AspNetCore	346%
02	flutter/flutter	279%
03	MicrosoftDocs/vsts-docs	264%
04	istio/istio	194%
05	aws-amplify/amplify-js	188%
06	helm/charts	184%

State of the Octoverse report lists Istio as 4th fastest growing project.

About your Speaker

istio / istio

Unwatch ▾ 966   ★ Unstar 21.6k   Fork 4k

‹› Code   Issues 1,046   Pull requests 93   ZenHub   Wiki   Security   Insights

Connect, secure, control, and observe services.   https://istio.io

microservices   service-mesh   lyft-envoy   kubernetes   api-management   circuit-breaker   polyglot-microservices   enforce-policies   proxies

microservice   envoy   consul   nomad   request-routing   resiliency   fault-injection

11,212 commits   21 branches   0 packages   111 releases   500 contributors   Apache-2.0

The Istio project has real customers, a large diverse set of contributors, and is growingly wildly as evidenced by over **4300 forks**.

Steve Dake
Open Source Leader:
Cloud Native
sdake@ibm.com
Slack: sdake
Twitter: steven_dake

Roles in Istio Project
- Istio Environments Workgroup Lead
- Environments Maintainer
- Document Team Maintainer
- Test and Release Maintainer

Istio
Connect, secure, control, and observe services.

Istio 1.5 features
- Introduction of Istiod
- Extensibilityv2 – aka WASM integration
- Enhanced Security
- Improved observability
- Performance improvements
- Vastly improved user experience via istioctl

Istio 1.6 features
- Improved lifecycle management
- More simplification
- Networking and security improvements
- Major improvements to the documentation
- Virtual machine workload integration
- A world-class development environment

March 2020

May 2020

Istio
Connect, secure, control, and observe services.

Demos:
- Secure by default
- Top performance
- Built in observability
- Canary upgrades
- And maybe virtual machine integration.