

Istio Project Update

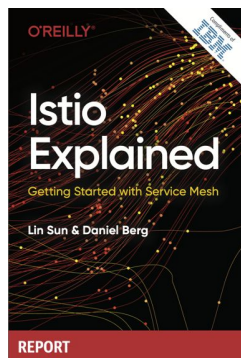
Lin Sun

 @linsun_unc



#IstioCon

Speaker Intro



#IstioCon



Istio Community

Number of contributors last 12 months:

350+ contributing companies

500+ PR authors

1900+ contributors

#IstioCon



Istio Community

The screenshot shows the GitHub repository for Istio. At the top, the repository name is 'istio / istio'. It has 26.1k stars and 5.1k forks. The navigation bar includes links for Code, Issues (847), Pull requests (85), Wiki, Security, Insights, and Settings. Below the navigation bar, there are buttons for 'Go to file', 'Add file', and 'Code'. The main content area shows a list of folders on the left, including .github, bin, cni, common-protos, common, docker, galley, istioctl, licenses, logo, manifests, operator, and pilot. A 'STAR TREND' chart is overlaid on the page, showing the number of stars from February 2016 to April 2020. The chart shows a steady upward trend, starting at 0 stars in February 2016 and reaching approximately 26,000 stars by April 2020. The right sidebar contains an 'About' section with a description: 'Connect, secure, control, and observe services.' Below this, there are tags for various related technologies like 'kubernetes', 'microservices', 'microservice', 'consul', 'api-management', 'proxies', 'resiliency', 'nomad', 'fault-injection', 'circuit-breaker', 'service-mesh', 'lyft-envoy', 'envoy', 'polyglot-microservices', 'enforce-policies', and 'request-routing'. There is also a 'Releases' section showing 'Istio 1.9.0' as the latest release, published 6 days ago.

istio / istio

Star Trend Unwatch 1k Unstar 26.1k Fork 5.1k

Code Issues 847 Pull requests 85 Wiki Security Insights Settings

master 62 branches 184 tags Go to file Add file Code

istio-testing Automator: update

.github bin cni common-protos common docker galley istioctl licenses logo manifests operator pilot

STAR TREND

Date	Stars
12-02 2016	0
07-13 2017	~3,000
05-19 2018	~6,000
03-25 2019	~15,000
01-29 2020	~21,000
12-04 2020	~26,000

About

Connect, secure, control, and observe services.

istio.io

kubernetes microservices microservice consul api-management proxies resiliency nomad fault-injection circuit-breaker service-mesh lyft-envoy envoy polyglot-microservices enforce-policies request-routing

Readme

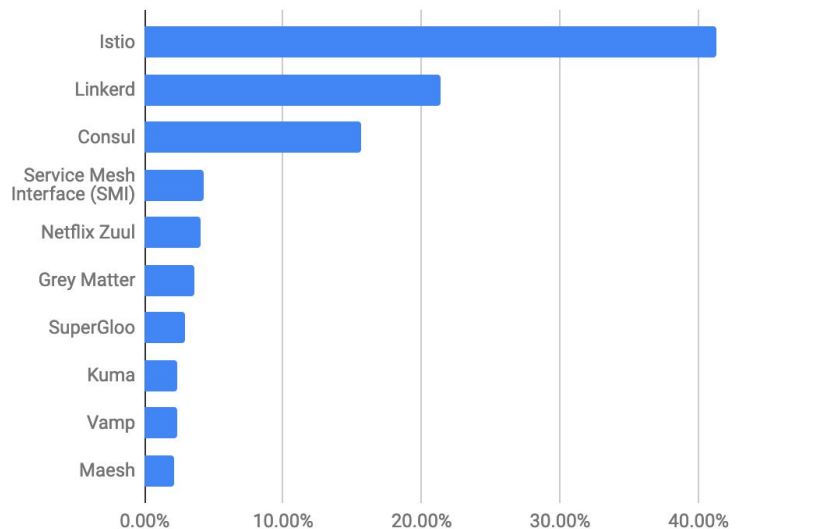
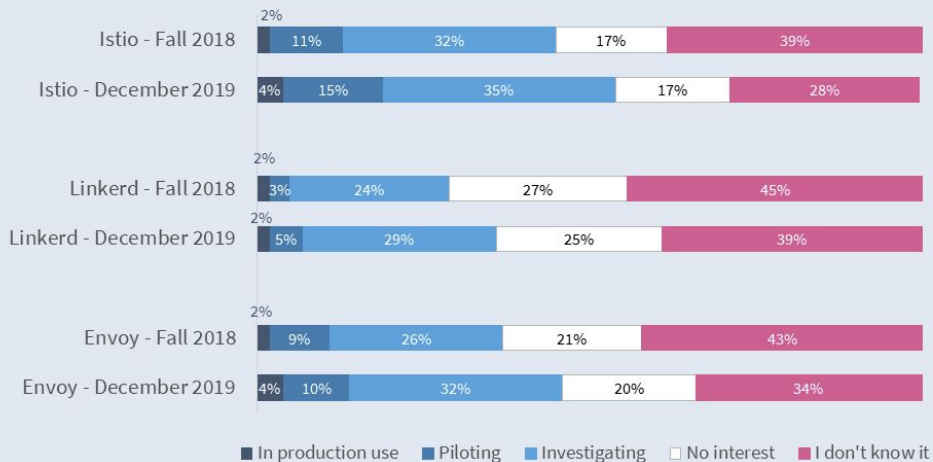
Apache-2.0 License

Releases 184

Istio 1.9.0 Latest 6 days ago

Service Mesh Surveys

Adoption of Several Service Mesh Related Technologies – Detailed View



Source: StackRox's "The State of Container and Kubernetes Security". 392 IT professionals were surveyed in Fall 2018 for the Spring 2019 report. 540 IT professionals were surveyed in December 2019 for the Winter 2020 report. Q. What newer cloud-native technologies are you considering or using?

© 2020 THE NEW STACK

Using service mesh in production, from [CNCF 2020 Survey](#)

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What I like most about Istio

Continuous **INNOVATION**
and transformation with
users in mind

3 Key Personas

Developer (service owner)

Platform owner

Mesh operator (could be your cloud provider)



Istio simplify install

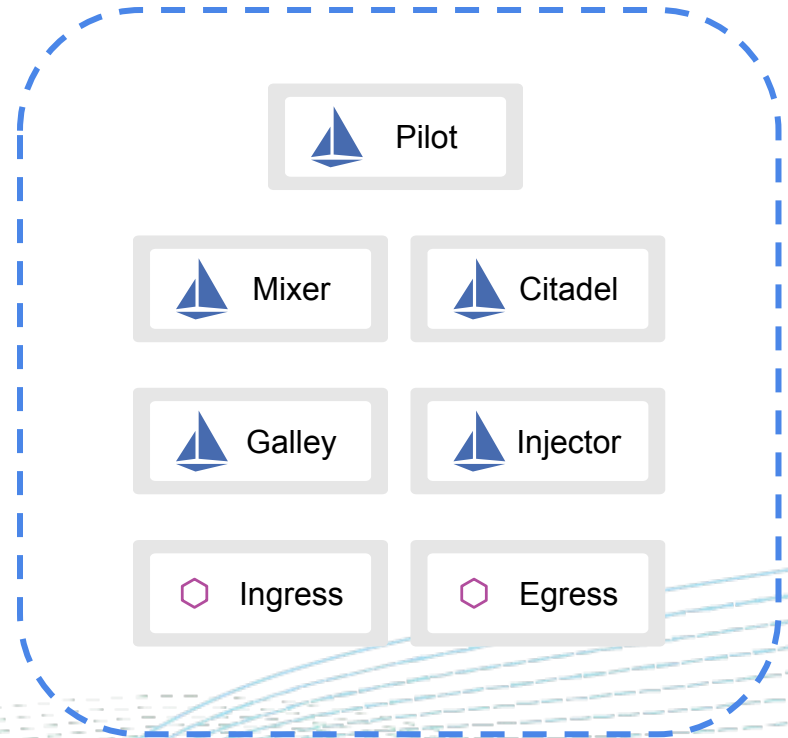
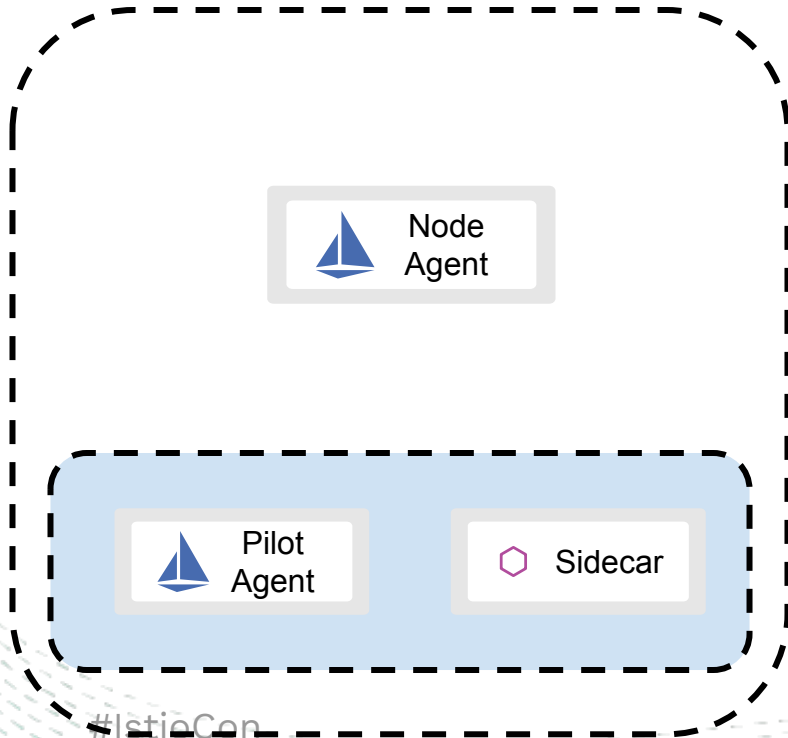
install

verify-install

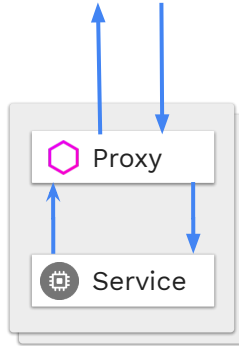
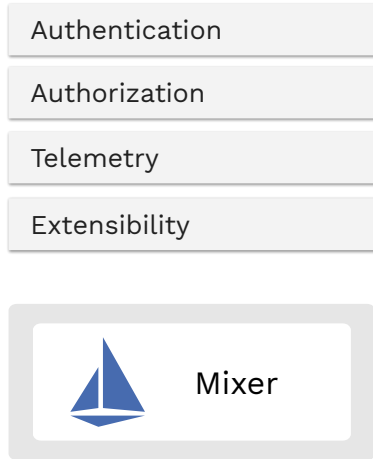
upgrade

helm3

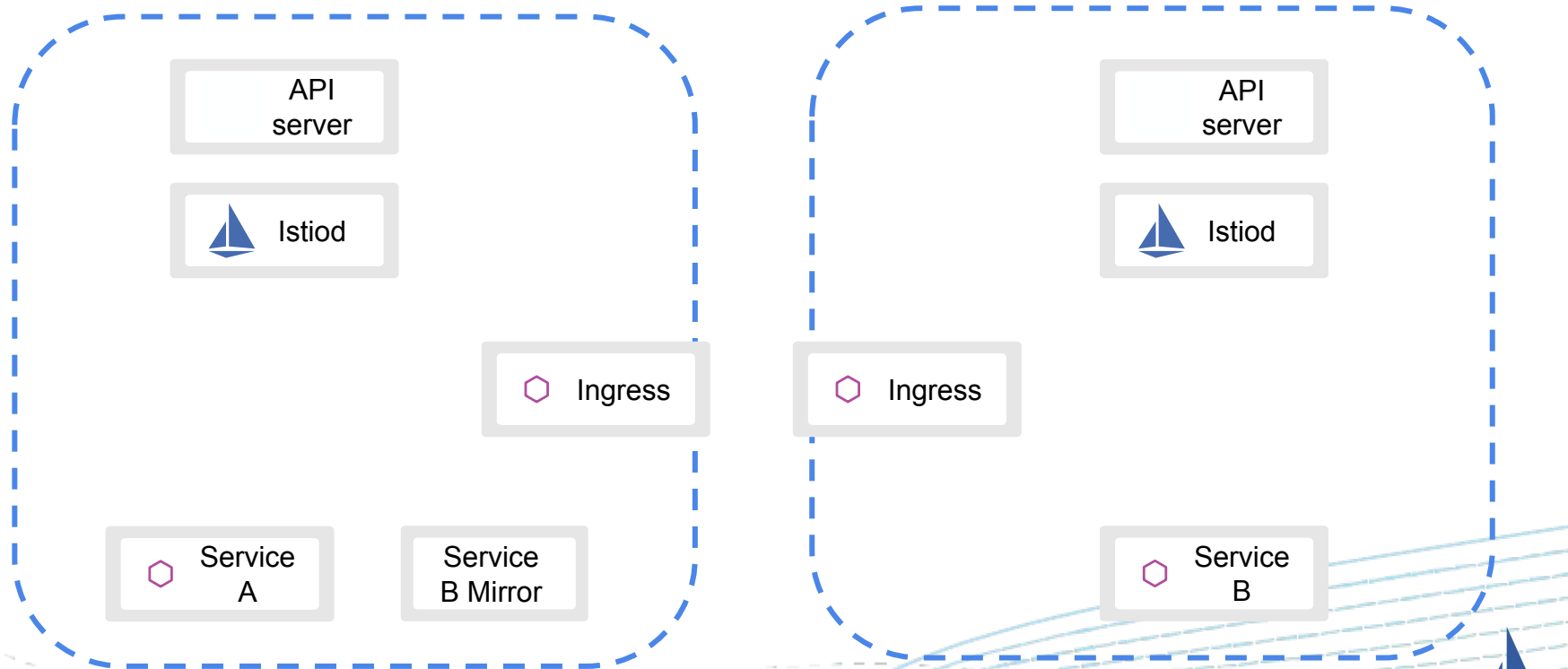
Istio Single Cluster Simplified



New Extension Model



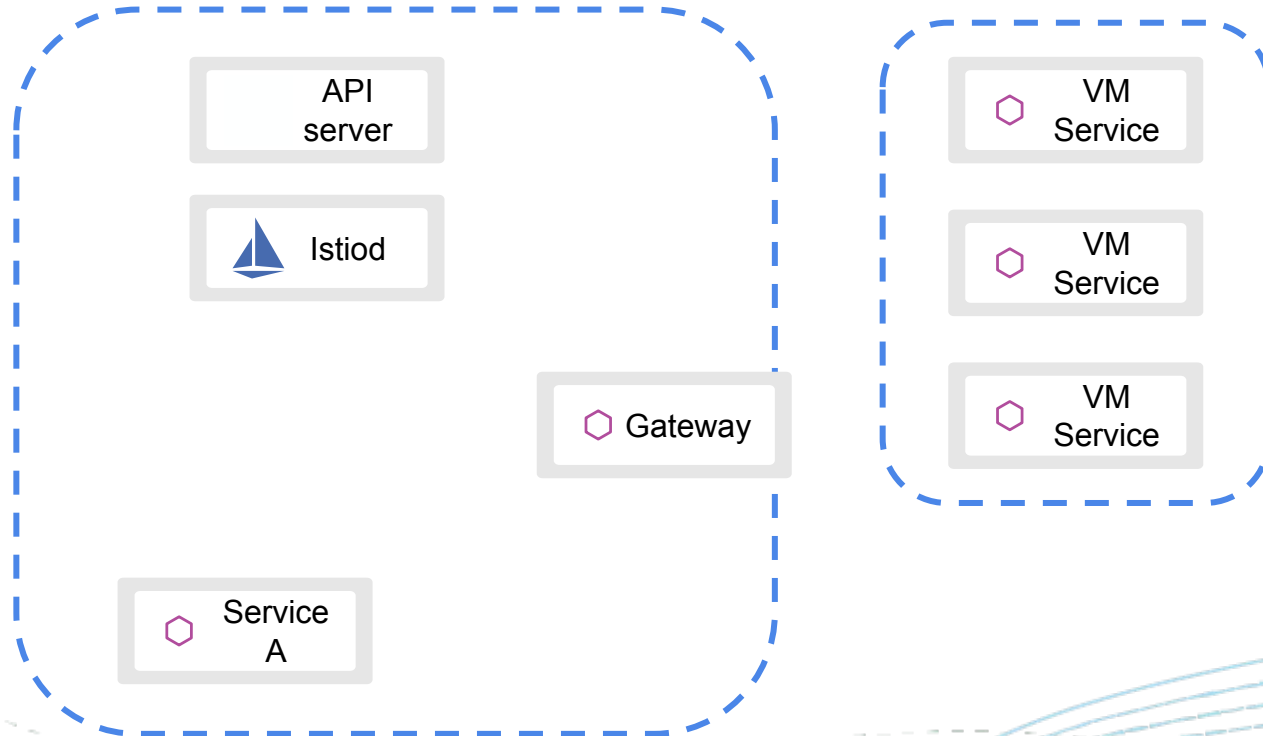
Simplified Istio Multicluster Model



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Istio simplify VM onboarding



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Istio Standardize APIs

Adopt Kubernetes service API

Protocol declaration in Kubernetes service descriptor

Transform informal API to formal API

External authz



Istio simplify troubleshooting

analyze

describe

bug-report



You Are Innovating Too Fast!

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Istio Feature Process

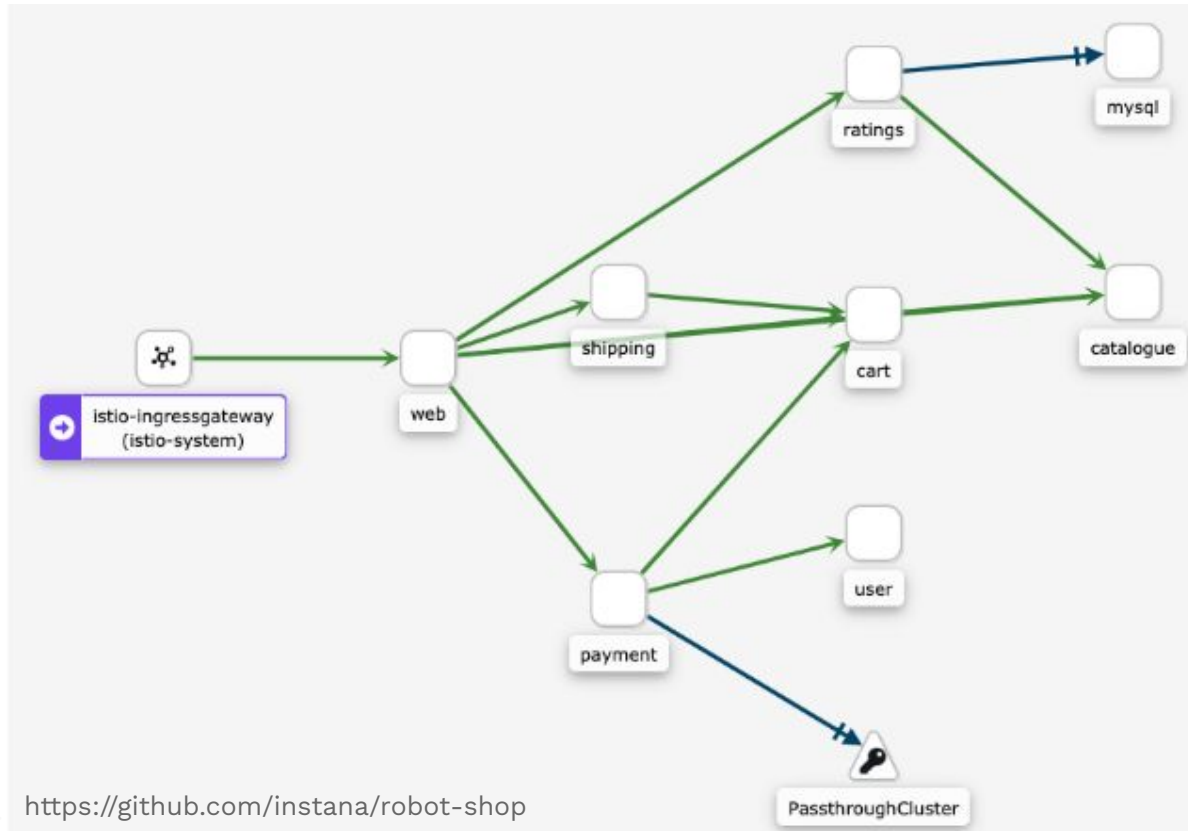
Tracked at the Istio [enhancements repository](#)

Checklist and approval required for feature promotions:

Experimental->Alpha->Beta->Stable



Let's See It Live!














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<https://github.com/instana/robot-shop>



2018-2019: Year of Service Mesh

 Consul HashiCorp ★ 21,263 Funding: \$349.18M	 Grey Matter Greymatter.io ★ 26,042 MCAp: \$1.3T	 Istio Google ★ 26,042 MCAp: \$1.3T	 Kuma Cloud Native Computing Foundation (CNCF) ★ 2,058 Funding: \$3M
 LINKERD Cloud Native Computing Foundation (CNCF) ★ 6,510 Funding: \$3M	 MESHERY Layer5 ★ 587	 NETFLIX OSS Zuul ★ 10,418 MCAp: \$242.78B	 Open Service Mesh Cloud Native Computing Foundation (CNCF) ★ 1,824 Funding: \$3M
 Service Mesh Interface (SMI) Cloud Native Computing Foundation (CNCF) ★ 713 Funding: \$3M	 SuperGloo Solo.io ★ 839 Funding: \$36.5M	 traefik mesh Traefik Labs ★ 1,397 Funding: \$11.06M	

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2020: Year of Istio Innovation

Simplified installation

Simplified control plane

New extension Model

Unified multicluster model

Simplified VM onboarding

Simplified troubleshooting

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2021: Year of Istio Adoption

T Mobile



ATLASSIAN



ebay



SBERBANK

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Thank you!

 @linsun_unc

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Istio Steering Committee

Steering Committee

Advocacy

Ecosystem

Events

Code of Conduct



Google Cloud



Red Hat



ASPEN MESH



solo.io



HUAWEI



tetrade

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