



KubeCon



CloudNativeCon

THE LINUX FOUNDATION



AI_dev
Open Source GenAI & ML Summit

China 2024



KubeCon



CloudNativeCon



China 2024

Next Steps for the Ingress-NGINX Project

Jintao Zhang @ Kong Inc.

About me



KubeCon



CloudNativeCon



China 2024



- Jintao Zhang @ Kong Inc.
- Kubernetes Ingress Nginx maintainer
- Microsoft MVP
- CNCF Ambassador
- LFAPAC Open Source Evangelist
- GitHub: [tao12345666333](https://github.com/tao12345666333)
- Wechat Channel: MoeLove



Overview



KubeCon



CloudNativeCon

Europe 2024

- Golang, Alpine, NGINX, Lua
- 1 kubectl plugin
- 2 monitoring frameworks
- 3 third party plugins
- 4 hour build time
- 7 static configurations
- 12 supporting container images
- 30 NGINX modules
- 43 dependencies compiled across 4 architectures for 3 Kubernetes versions, for Helm and static deployments
- 68 command line flags
- 100+ E2E tests
- 118 annotations
- 186 configuration options

Gateway API

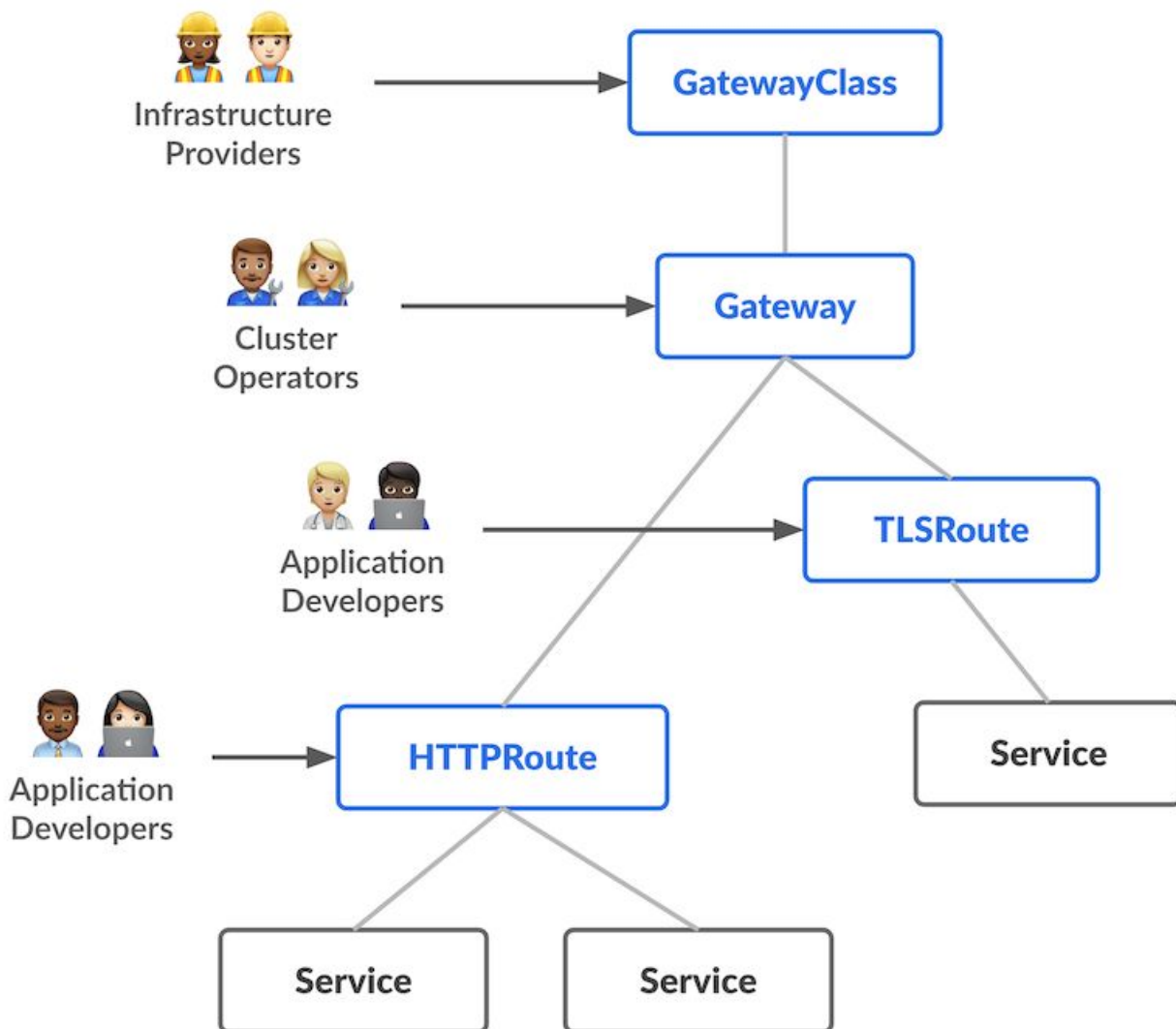


KubeCon



CloudNativeCon

Europe 2024



- GatewayClass
- Gateway
- HTTPRoute
- TCPRoute
- UDPRoute
- TLSRoute
- GRPCRoute
- BackendTSLPolicy
- ReferenceGrant

Splitting the monolith



KubeCon



CloudNativeCon

Europe 2024

Why?

- Not scaling well on huge clusters

- Security pitfalls (e.g. privilege escalation)

- Separated dependencies

How?

- Dedicated control plane <> data plane architecture

- Separate containers for Controller and NGINX

- Requires work on images and controller

Next steps



KubeCon



CloudNativeCon



China 2024



- Add Gateway API support
- Split CP/DP
- Migrate to crossplane and drop the OpenResty
- Drop the support of L4 protocol(TCP/UDP)
- New version v2.x (this is the third major version)

Project Rename Survey



KubeCon



CloudNativeCon

Europe 2024



bit.ly/ingress-rename

Getting Involved



KubeCon



CloudNativeCon

Europe 2024

It's not just code

Documentation

Examples

Cloud Specific Examples

Also...

JavaScript Developers

CI/E2E testing/image support

Support & triage issues

Getting Involved



KubeCon



CloudNativeCon

Europe 2024

- On Kubernetes Slack
 - `#ingress-nginx-dev`
 - `#ingress-nginx-users`
 - New Contributor Docs
- Community Meetings + Notes
- (Every Other Thursday @ 11 ET)
- Community Meetings Youtube Playlist





KubeCon



CloudNativeCon



China 2024



Thanks!