



North America 2024

Securing the Future of Ingress NGINX

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- Solution Architect at Isovalent at Cisco
- Maintainer of Ingress NGINX
- Author of Networking and Kubernetes
- A Cloud Guru Instructor
- Gimli Cosplay Enthusiast



Marco Ebert // Gacko



- Site Reliability Engineer at Giant Swarm
- 10+ years in Open Source
- Kubernetes since 2016
- Maintainer since 2023
- Bouldering & Mountain Biking



Community Support



"I also don't think the maintainers owe anyone anything here."

- Someone.

"This project isn't anyone's full-time job, because none of the maintainers make money downstream from it."

- Also someone.

Agenda



- 1. Changes in v1.12
- From Ingress NGINX to Gateway API
- 3. Future Plans

Security



- enable-annotation-validation: Enabled by default. (CVE-2023-5043)
- × allow-cross-namespace-resources: Disabled by default.
- annotations-risk-level: High by default.
- strict-validate-path-type: Enabled by default. (CVE-2022-4886)

Deprecation & Removal



- Global Rate Limiting
- X Pod Security Policies
- X 3rd party Lua plugins
- × s390x builds
- OpenTelemetry module installation image
- ingress_upstream_latency_seconds metric

Multi Tenancy



- Access to all secrets
- Workloads everywhere
- User-defined Ingresses
- Potentially insecure annotations
- Multiple controllers



Project Rename



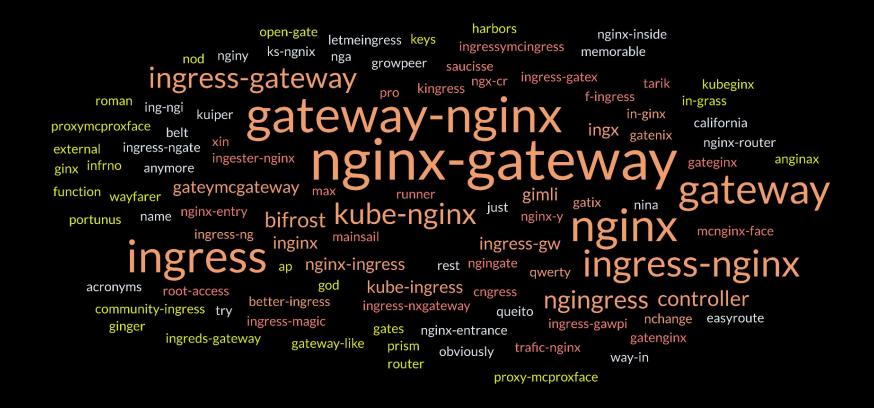
"There are 2 hard problems in computer science:

Cache invalidation, naming things, and off-by-1 errors."

– Leon Bambrick

Project Rename

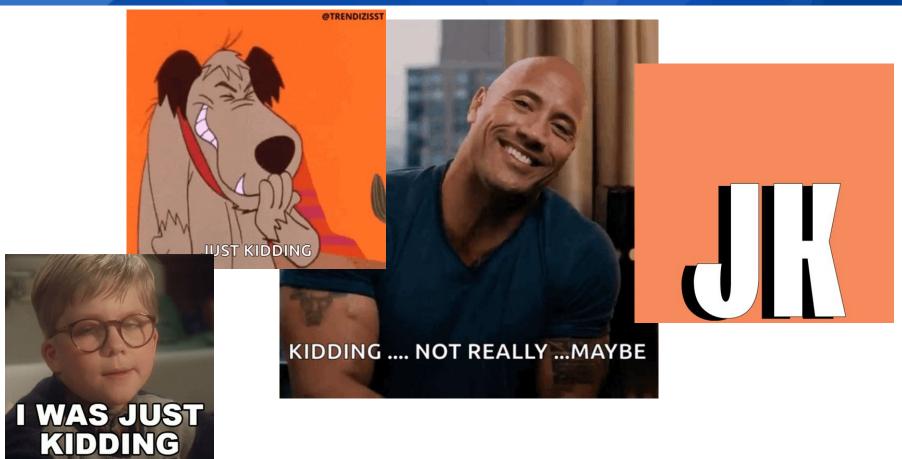






Proxy McProxFace - an Ingress & Gateway API Controller





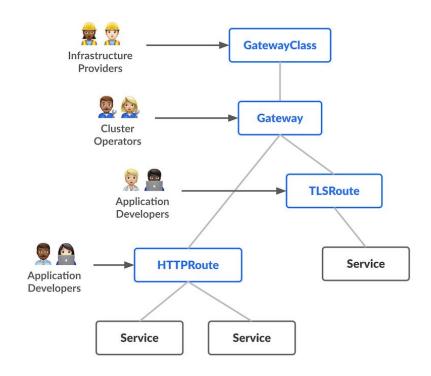


InGate - an Ingress & Gateway API Controller

Gateway API



- nginxinc/nginx-go-crossplane
- Control Plane / Data Plane split
- NGINX
- Project Migration



Gateway API







But that's not all!



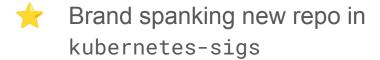


kubernetes-sigs/ingate



A New Repo





v0.x.x: Core-only Gateway API support

No extended API

Nothing implementation-specific

No policies

👍 🛮 Ingress API support

Feature-compatible with the secure subset of Ingress NGINX

Ingress NGINX will go into maintenance mode

Patches, CVEs & bug fixes only

Logo Community Idea





Ingress NGINX Releases



- v1.12: Coming soon
- v1.13: Crossplane (Disabled)
- v1.14: Enable Crossplane
- Alpine updates
- NGINX updates
- Golang updates
- CVE remediation
- Bug fixes



Getting Involved



It's not just code...

- Documentation
- Examples
- Cloud Specific Examples

It's also...

- JavaScript Developers
- CI/E2E testing/image support
- Support & triage issues



Getting Involved



- On Kubernetes Slack:
 #ingress-nginx-dev
 #ingress-nginx-users
- New Contributor Docs
- Community Meetings: Every Other Thursday @ 11 ET
- Community Meetings Youtube Playlist



Presentation Survey



Gateway API Survey

