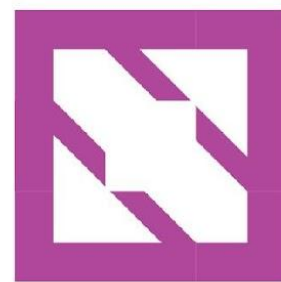




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How to Gateway with Ingress

~~1~~40 Days InGate



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CloudNativeCon

Europe 2025





Site Reliability Engineer at



Giant Swarm



10+ years in Open Source



Kubernetes since 2016



Maintainer since 2023



Climbing & Mountain Biking



James Strong



Solution Architect at



Isovalent



Maintainer of Kubernetes

Ingress NGINX



Author [Networking and Kubernetes](#)



[ACloud Guru Instructor](#)



Gimli Cosplay Enthusiast

Agenda



Ingress NGINX: CVEs



Ingress NGINX: Miscellaneous



Ingress NGINX: Maintenance Mode



Approximate Timeline



Gateway API Support for Ingress NGINX Features

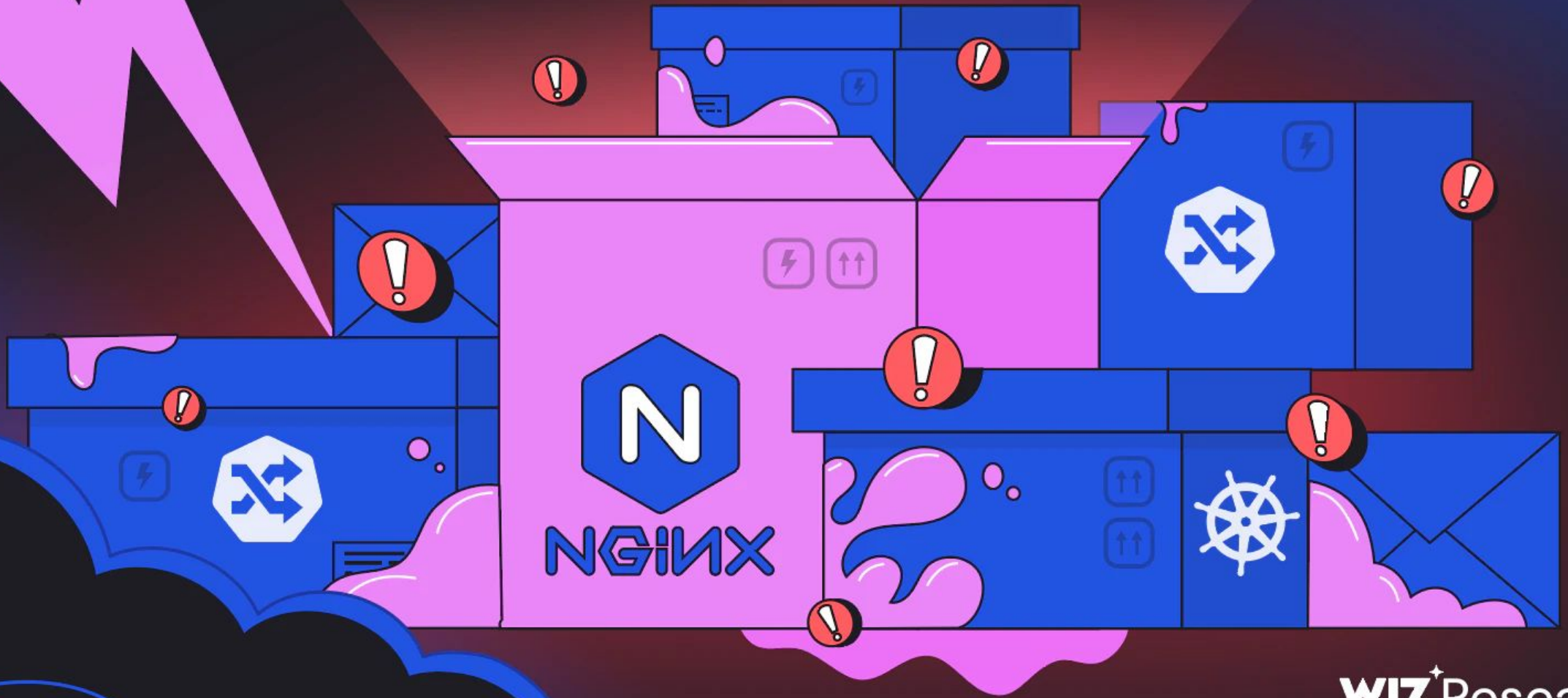


InGate: Current Status



How to: Contribute!

IngressNightmare



- 🔥 CVE-2025-1974 (9.8 Critical): Unauthenticated RCE
- 🔥 CVE-2025-1097 (8.8 High): `auth-tls-match-cn` annotation configuration injection
- 🔥 CVE-2025-1098 (8.8 High): `mirror-*` annotations configuration injection
- 🔥 CVE-2025-24514 (8.8 High): `auth-url` annotation configuration injection
- 🔥 CVE-2025-24513 (4.8 Medium): `auth-secret` path traversal

Ingress NGINX: CVEs

 Fixed in Ingress NGINX v1.12.1 & v1.11.5

 NGINX configuration testing during Ingress validation disabled

 chroot is not a security device!

Ingress NGINX: Miscellaneous

 Google Cloud Build compilation issues with QEMU

 Prevented us from releasing Ingress NGINX v1.12

 Magically solved overnight

 OpenResty v1.27.1.1 on main

 Migration to Google Artifact Registry

 Cloud Build strikes again: Timeout on image pushing

 Fixed right before CVE publication

Ingress NGINX: Maintenance Mode



Continued monthly patch releases



Alpine updates



Golang updates



Kubernetes updates



3rd party dependencies



Bug fixes



CVE patches



Ingress NGINX v1.13: Likely the last minor release



Support for new Kubernetes releases via E2E tests



No new features from our side, community provided features on a case-by-case basis



Migration path to InGate

Approximate Timeline



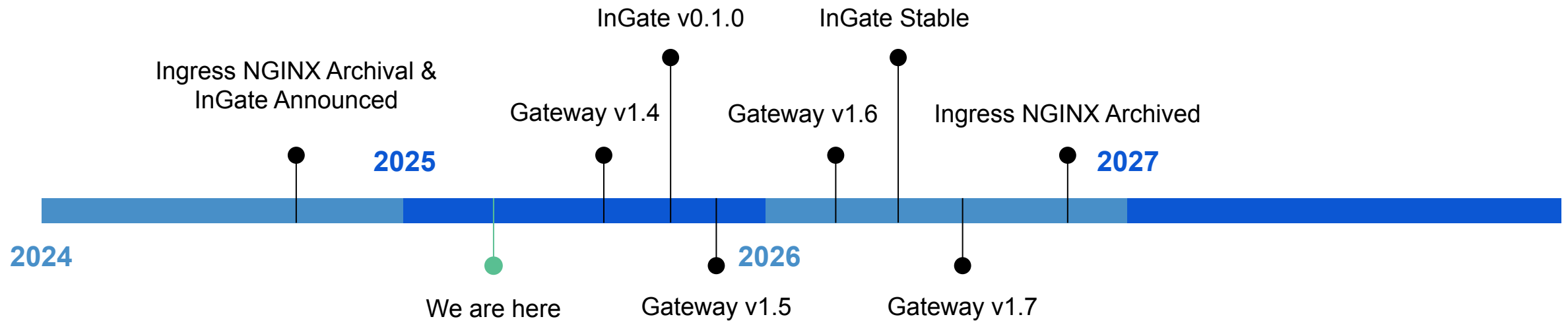
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Approximate



Gateway API Support for Ingress NGINX Features



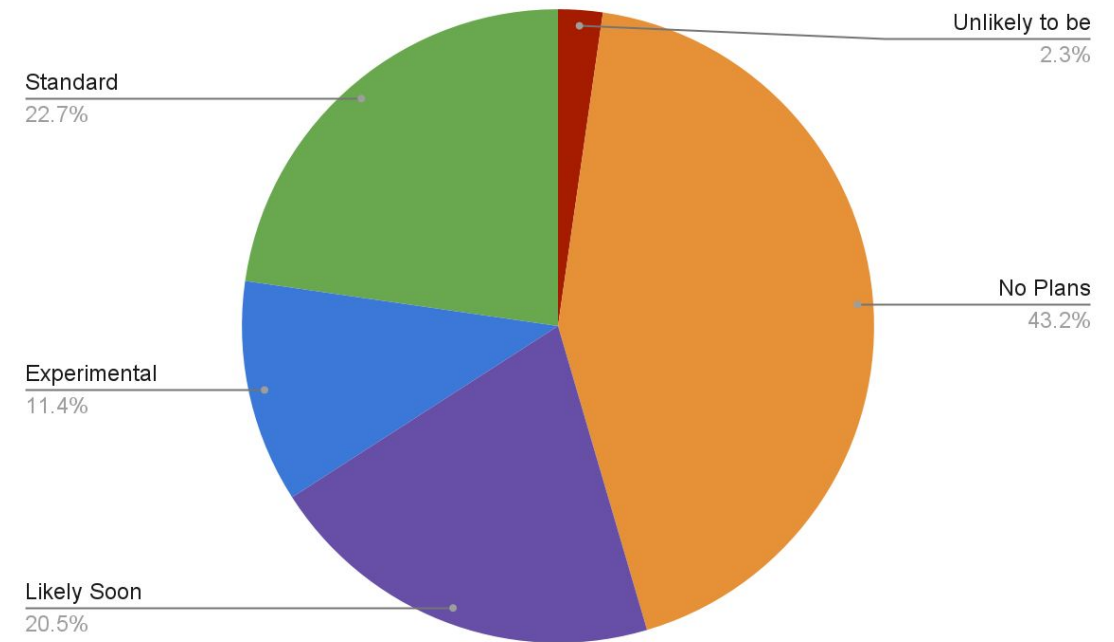
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- 35% supported today
- 55% supported soon
- Many without plans
- Some will never be supported in favor of more secure or portable alternatives



Gateway API Support for Ingress NGINX Features

Group	Annotation	Gateway API Status	Ingress Status
ExternalAuth	auth-always-set-cookie	No Plans ▼	Unknown ▼
ExternalAuth	auth-cache-duration	No Plans ▼	Unknown ▼
ExternalAuth	auth-cache-key	No Plans ▼	Unknown ▼
ExternalAuth	auth-keepalive	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-keepalive-requests	No Plans ▼	Unknown ▼
ExternalAuth	auth-keepalive-share-vars	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-keepalive-timeout	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-method	In Progress ▼	Gateway API ▼
ExternalAuth	auth-proxy-set-headers	In Progress ▼	Gateway API ▼
ExternalAuth	auth-request-redirect	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-response-headers	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-signin	No Plans ▼	Unknown ▼
ExternalAuth	auth-signin-redirect-param	No Plans ▼	Unknown ▼
ExternalAuth	auth-snippet	Likely Soon ▼	Gateway API ▼
ExternalAuth	auth-url	In Progress ▼	Gateway API ▼

InGate: Current Status

★ Brand spanking new repo in
kubernetes-sigs

✓ 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

InGate: Current Status



Documentation: kubernetes-sigs.github.io/ingate



Discussions: github.com/kubernetes-sigs/ingate/discussions

```
STRONGJZ-M-JVJM:ingate strongjz$ ./images/ingate-controller/bin/arm64/ingate start  
I0330 20:10:20.730438 79061 main.go:24] "Starting InGate Manager"
```

InGate: Current Status



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gRPC API definition



Control Plane <> Data Plane
Communication



Translation Layer: GW > NGINX



Gateway Class



HTTP / gRPC Route



Conformance testing



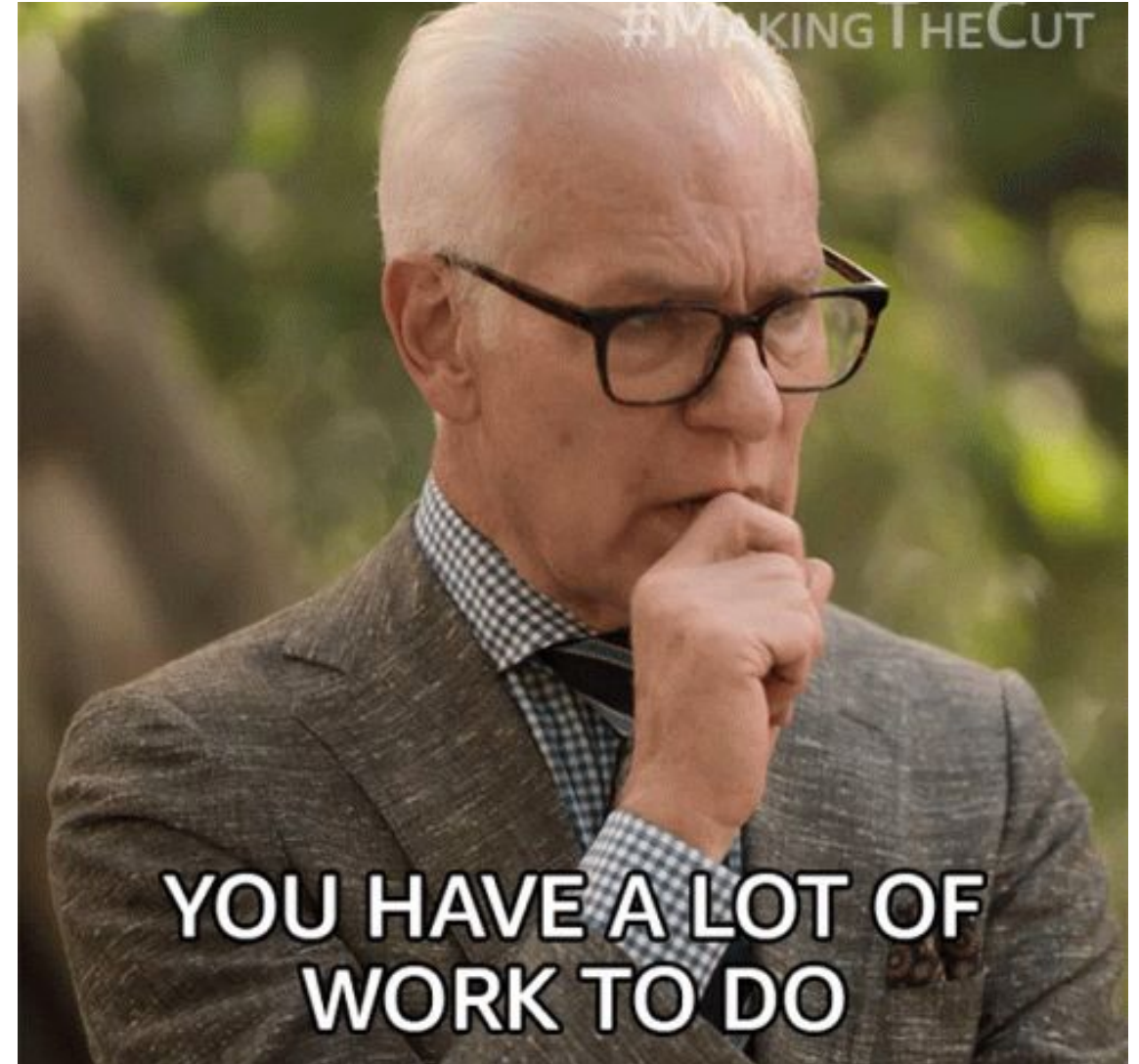
Testing



Testing



Testing



How to: Contribute!



Kubernetes Slack



#ingate-dev



#ingate-users



Contributor Docs



Community Meeting



Every other Friday at 09:00 AM ET

What are the most critical
Ingress NGINX features that
would need a Gateway API
equivalent before you migrated?



Working Session focused on
Gateway API for Ingress NGINX



Thursday at 04:00 PM



Ambassador and Maintainer

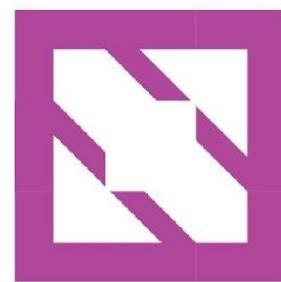
Workspace: Level 3, ICC

Capital Suite 2





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