

# How To Easily Deploy And Manage Your Microservices With Traefik And Maesh



OpenShift meetup #9 - -Janvier 2020

# Whoami

Michael Matur

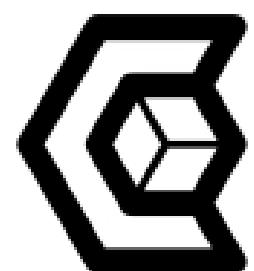
- Solution Architect @ Containous
- Blacksmith on Traefik
-  @michaelmatur
-  mmatur



# Containous

<https://containo.us>

- We Believe in Open Source
- We Deliver Traefik, Traefik Enterprise Edition, Maesh
- Commercial Support
- 30 people distributed, 90% tech



CONTAINOUS

# Why Traefik



Why, Mr Anderson?

THE EVOLUTION OF  
SOFTWARE ARCHITECTURE

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**1990's**

SPAGHETTI-ORIENTED  
ARCHITECTURE  
(aka Copy & Paste)



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**2000's**

LASAGNA-ORIENTED  
ARCHITECTURE  
(aka Layered Monolith)



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**2010's**

RAVIOLI-ORIENTED  
ARCHITECTURE  
(aka Microservices)



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**WHAT'S NEXT?**  
PROBABLY PIZZA-ORIENTED ARCHITECTURE

By @benorama

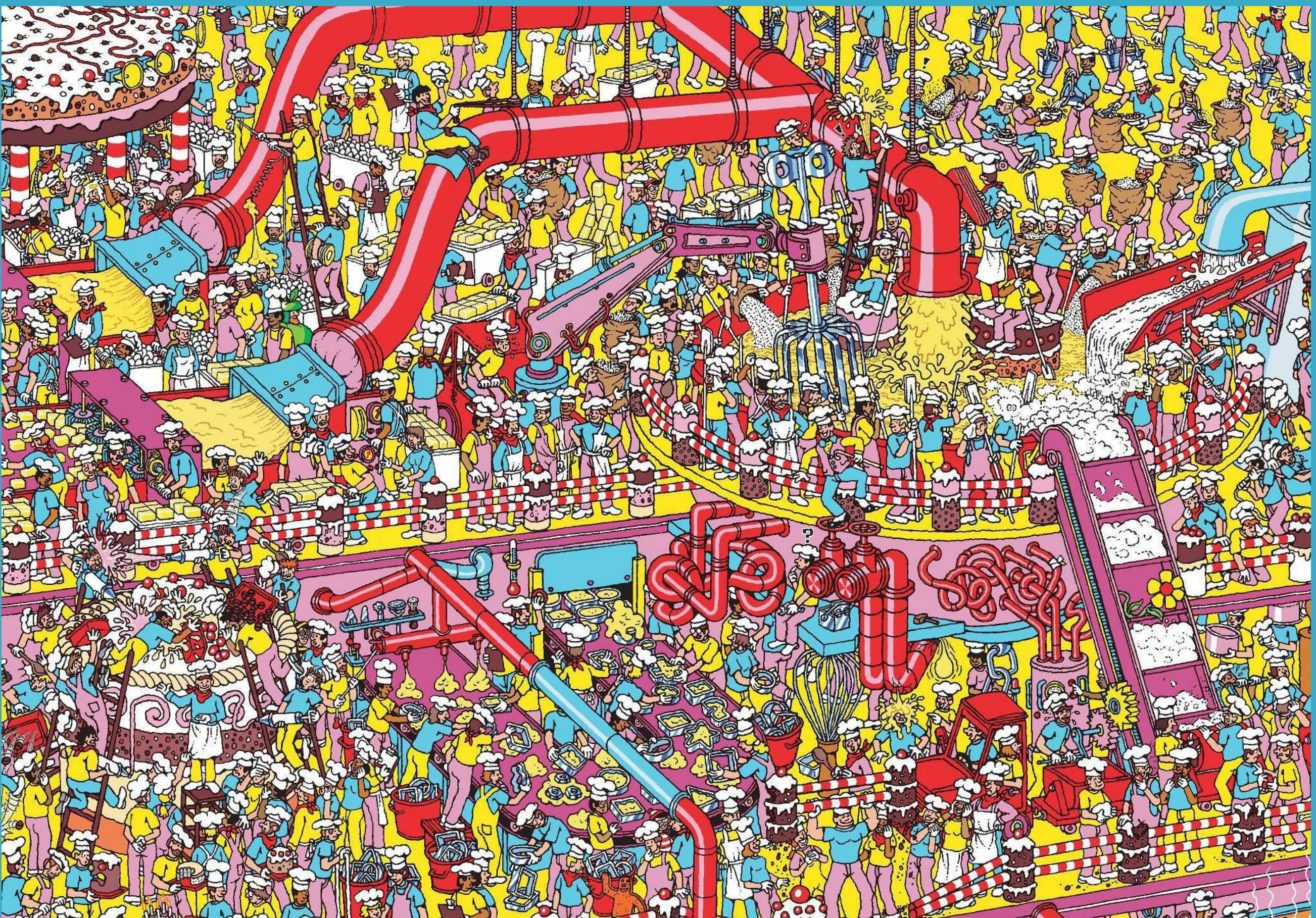
# The Premise Of Microservices...



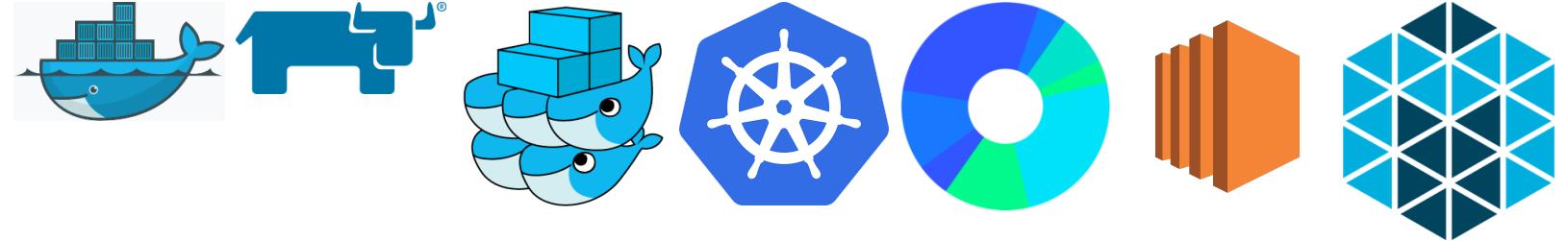
# ...And What Happens

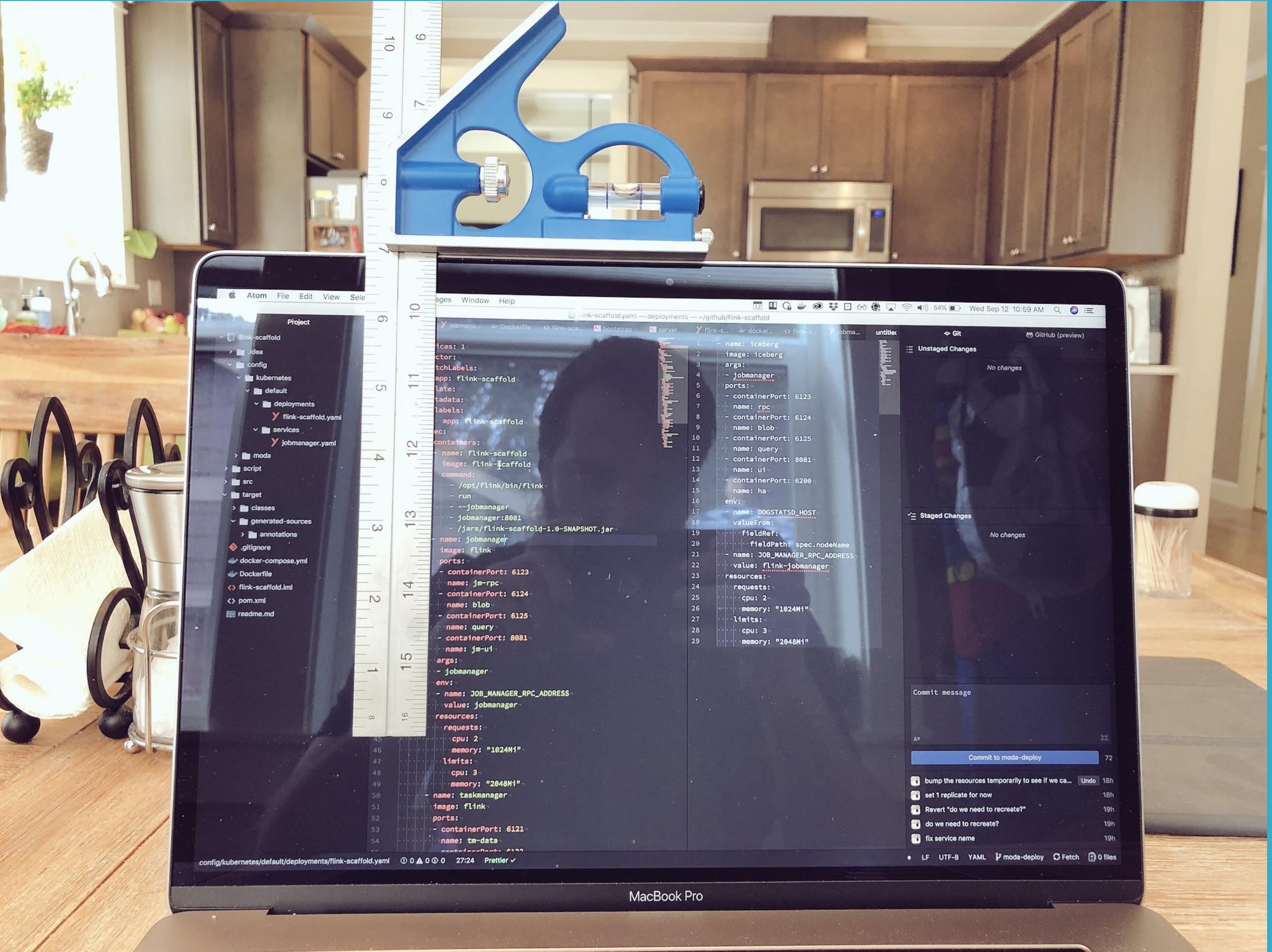


# Where's My Service?



# Tools Of The Trade





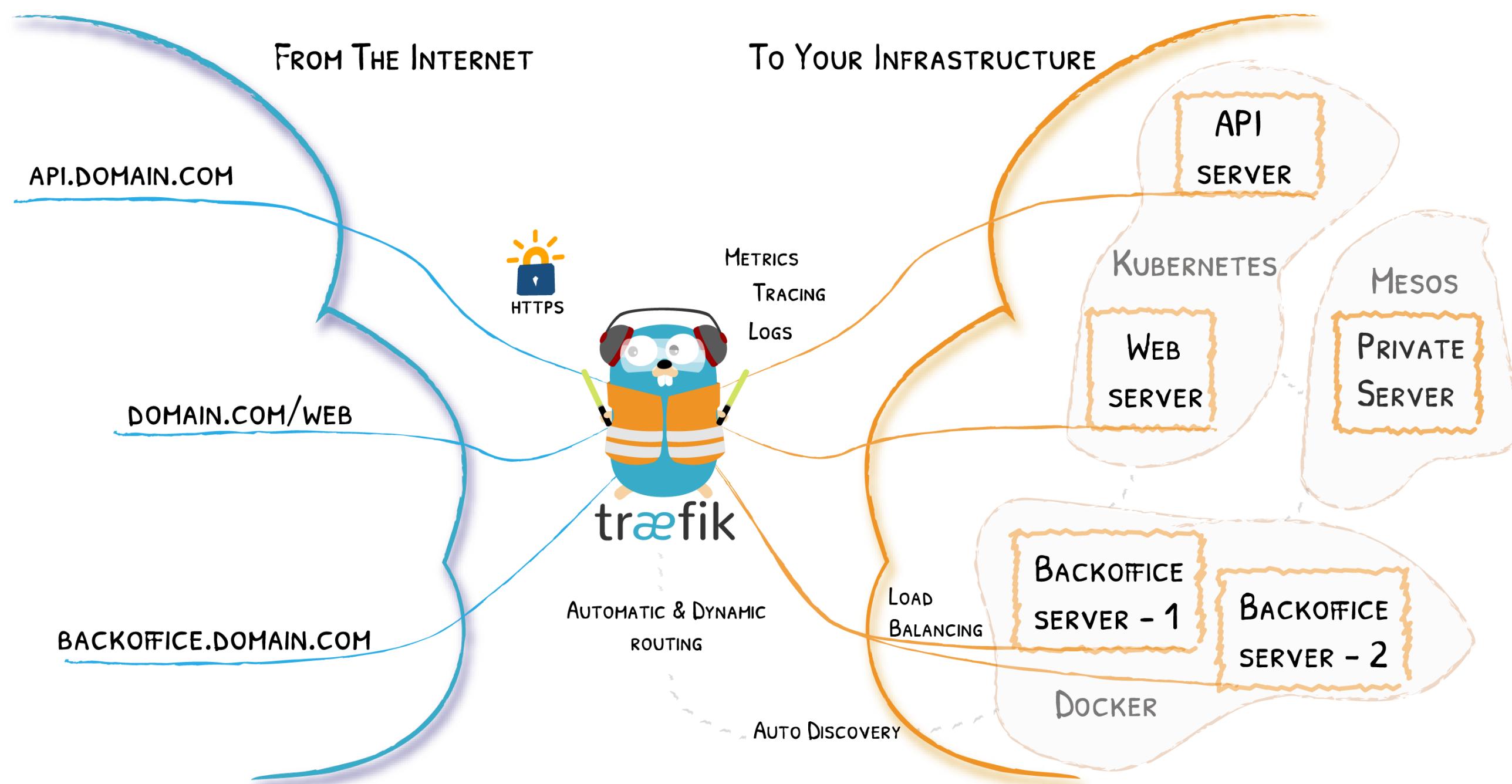
Source: <https://twitter.com/Caged/status/1039937162769096704>

# What If I Told You?



That You Don't Have to Write This Configuration File...?

# Here Comes Traefik!



# Traefik Project



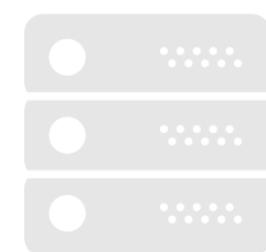
**27,000+**

stars on GitHub



**450+**

contributors



**100K +**  
living  
instances



**1.4 B+**

downloads



**TOP 15**

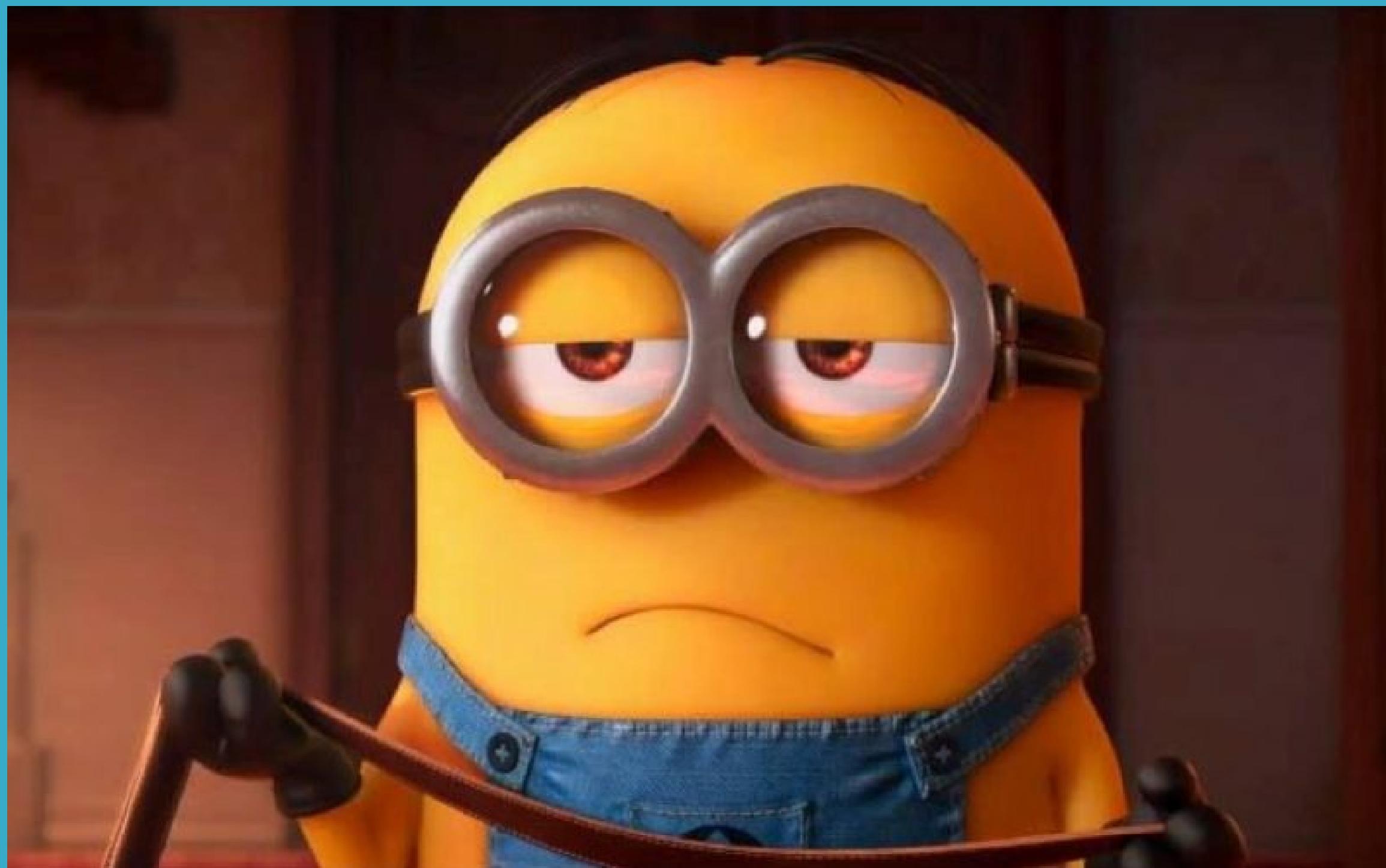
golang project

# Traefik 2.0 Quick Overview

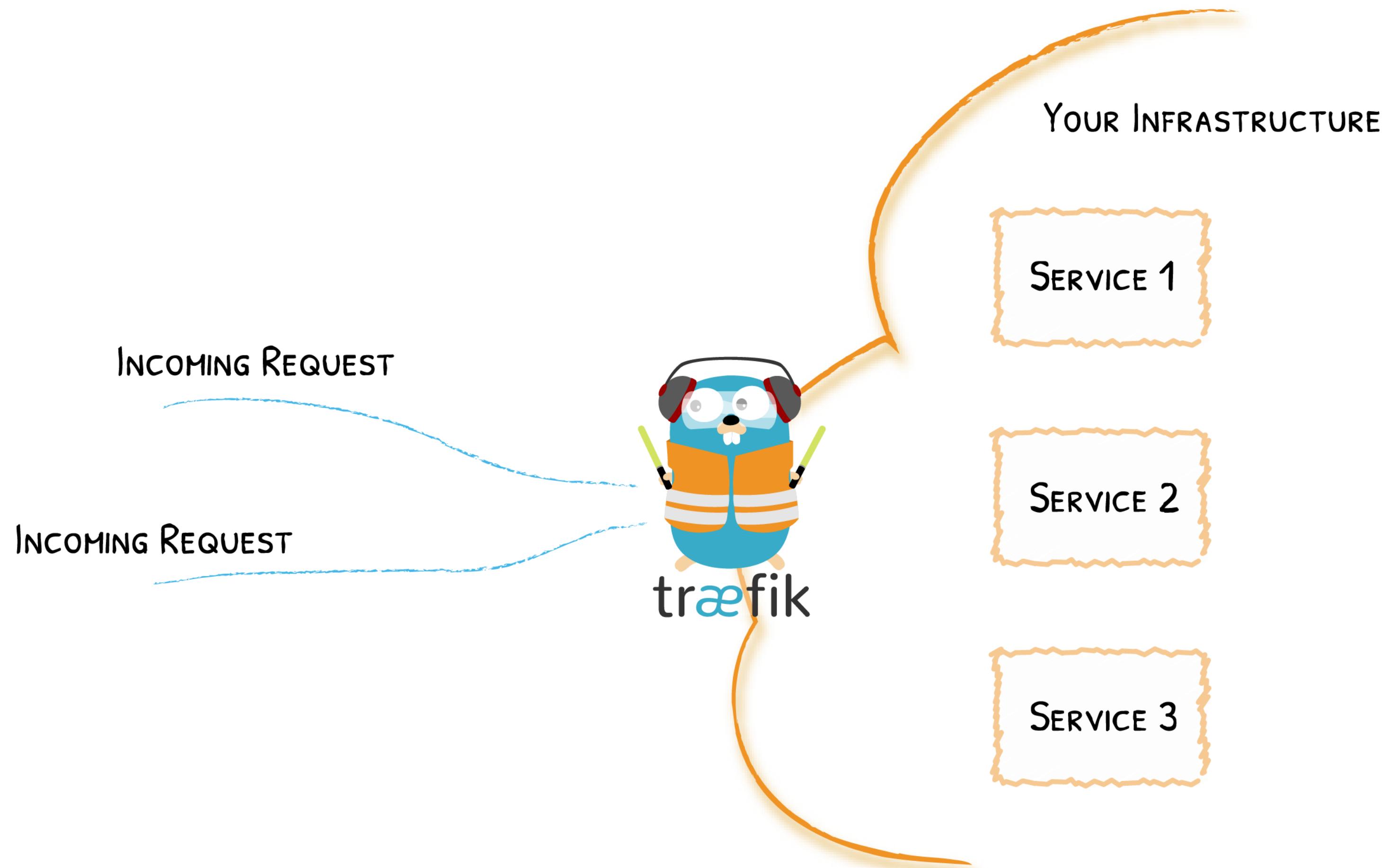
- Revamped Documentation
- Clarified Concepts
- Expressive Routing Rule Syntax
- Middlewares
- TCP Support
- Canary / Mirroring
- And so Much More...

Learn more on the blog post

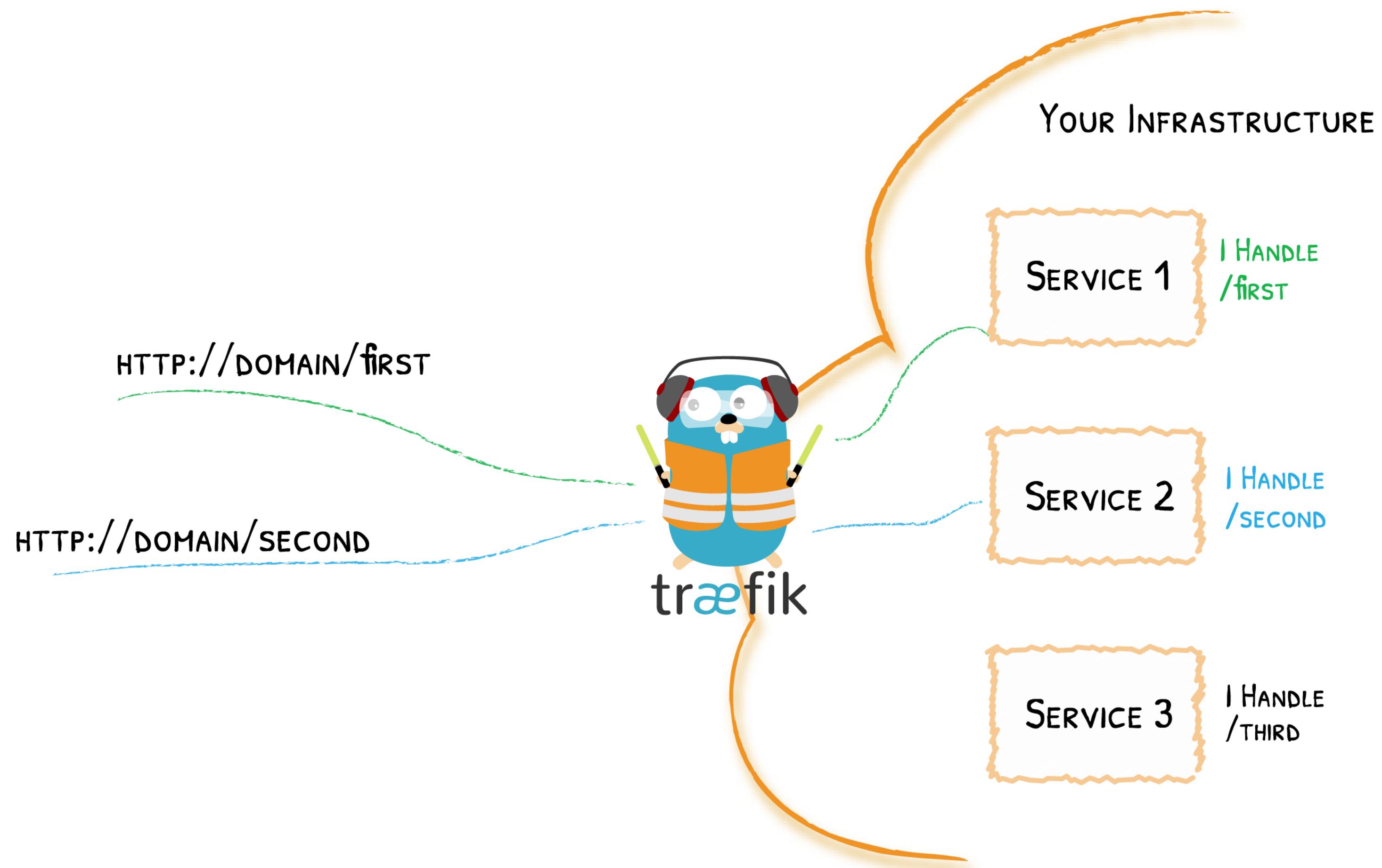
# Traefik (V2.0) Core Concepts



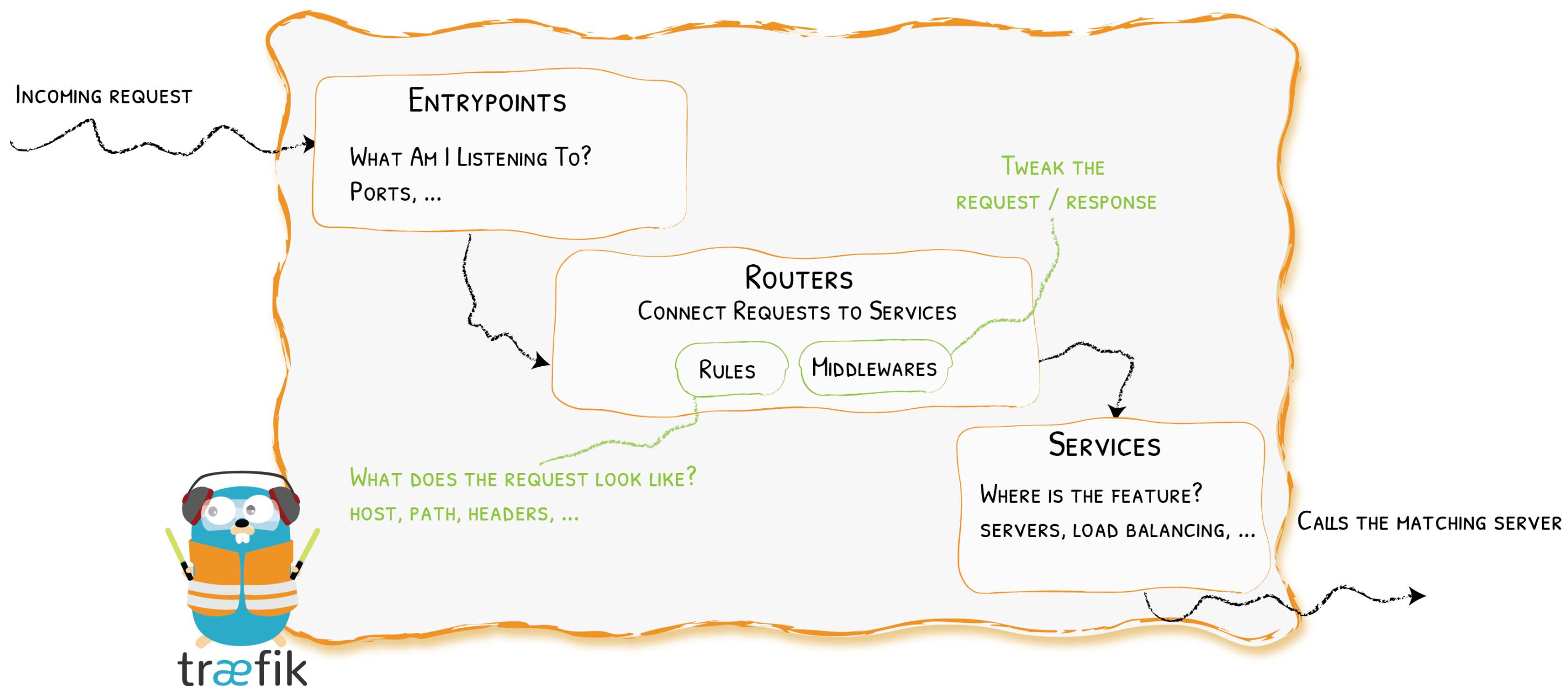
# Traefik Is An Edge Router



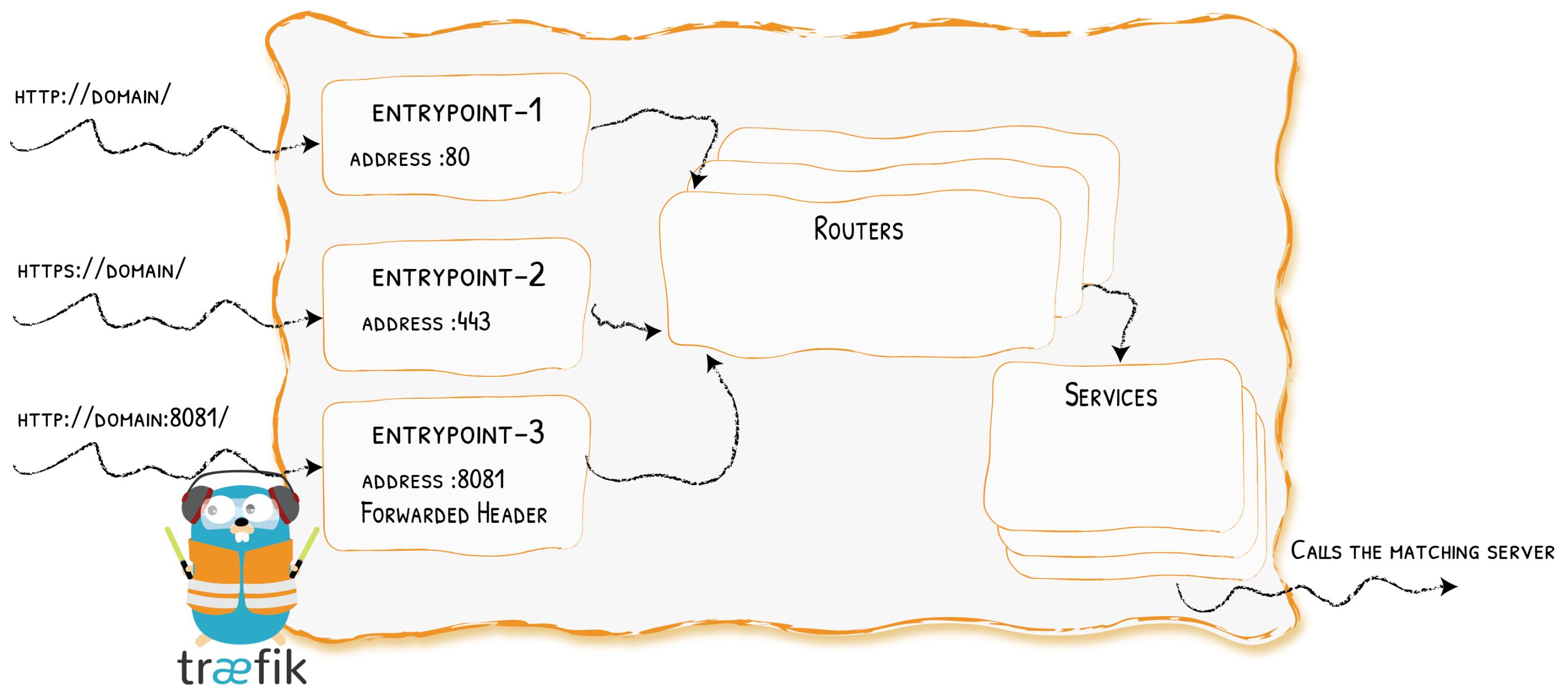
# Dynamically Discovers Services



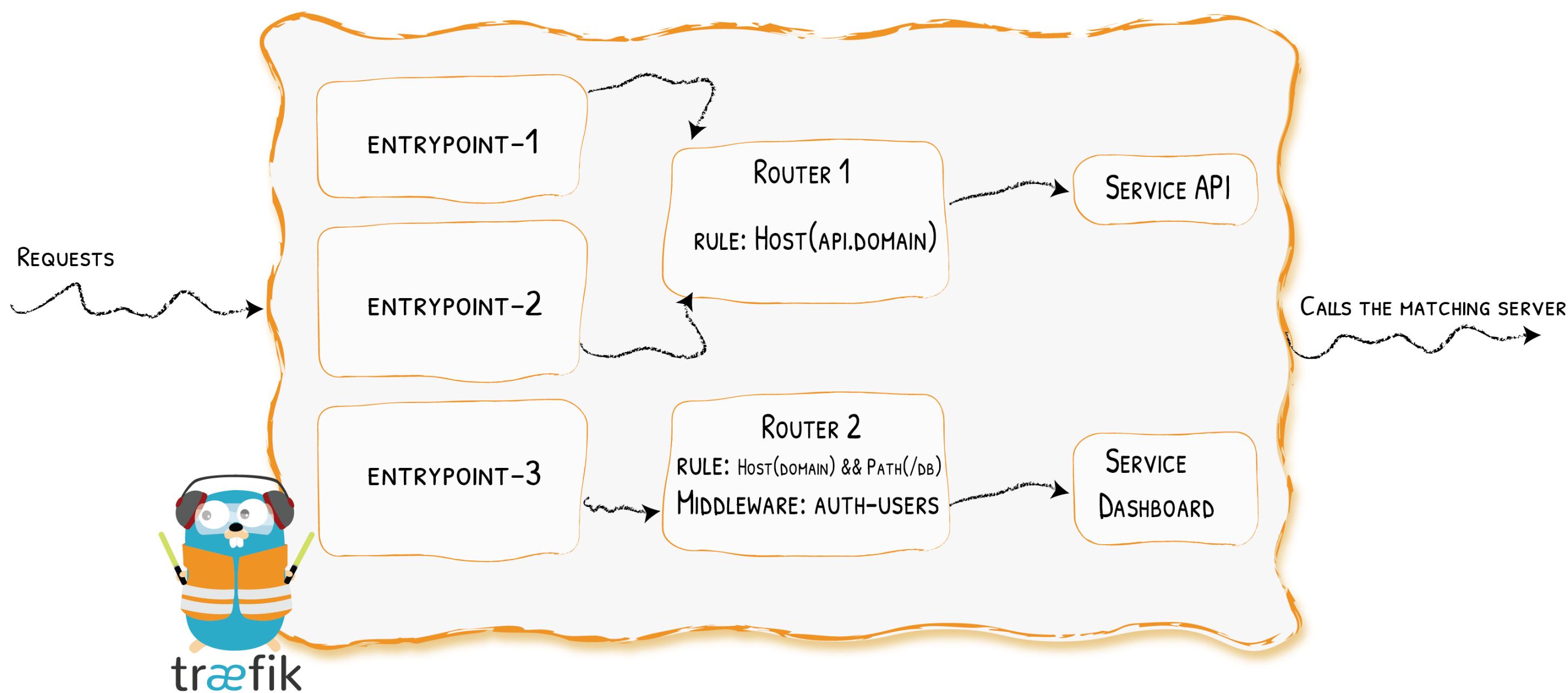
# Architecture (V2.0) At A Glance



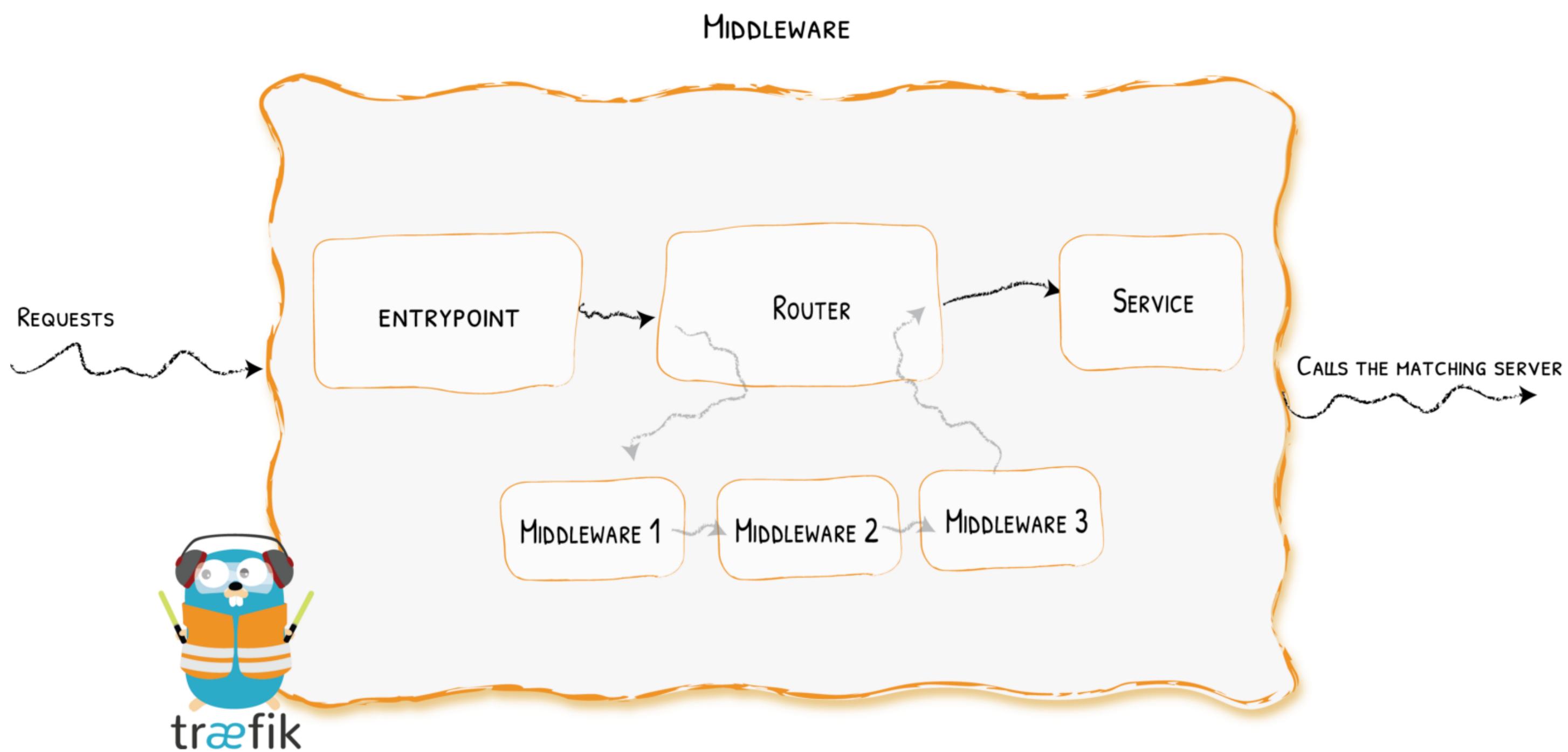
# Entrypoints



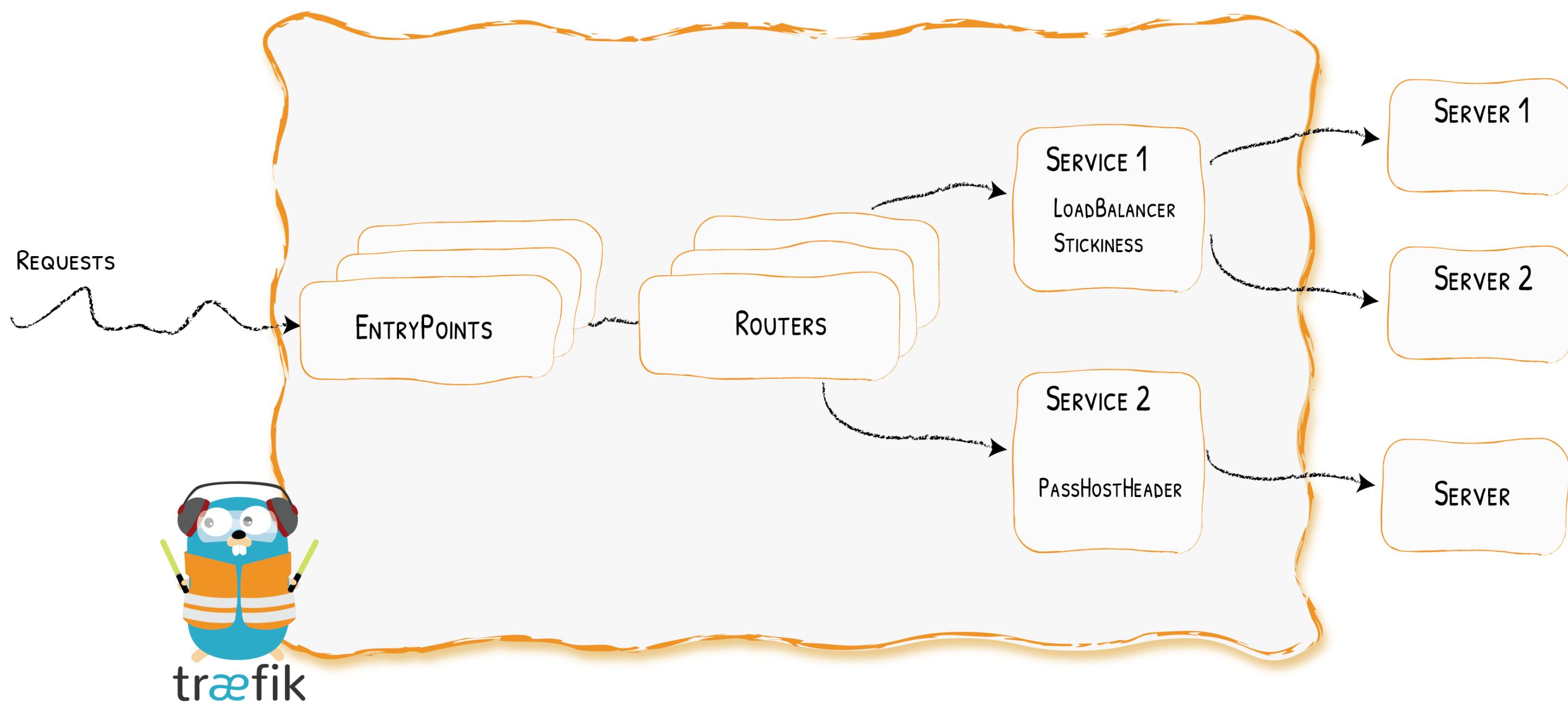
# Routers



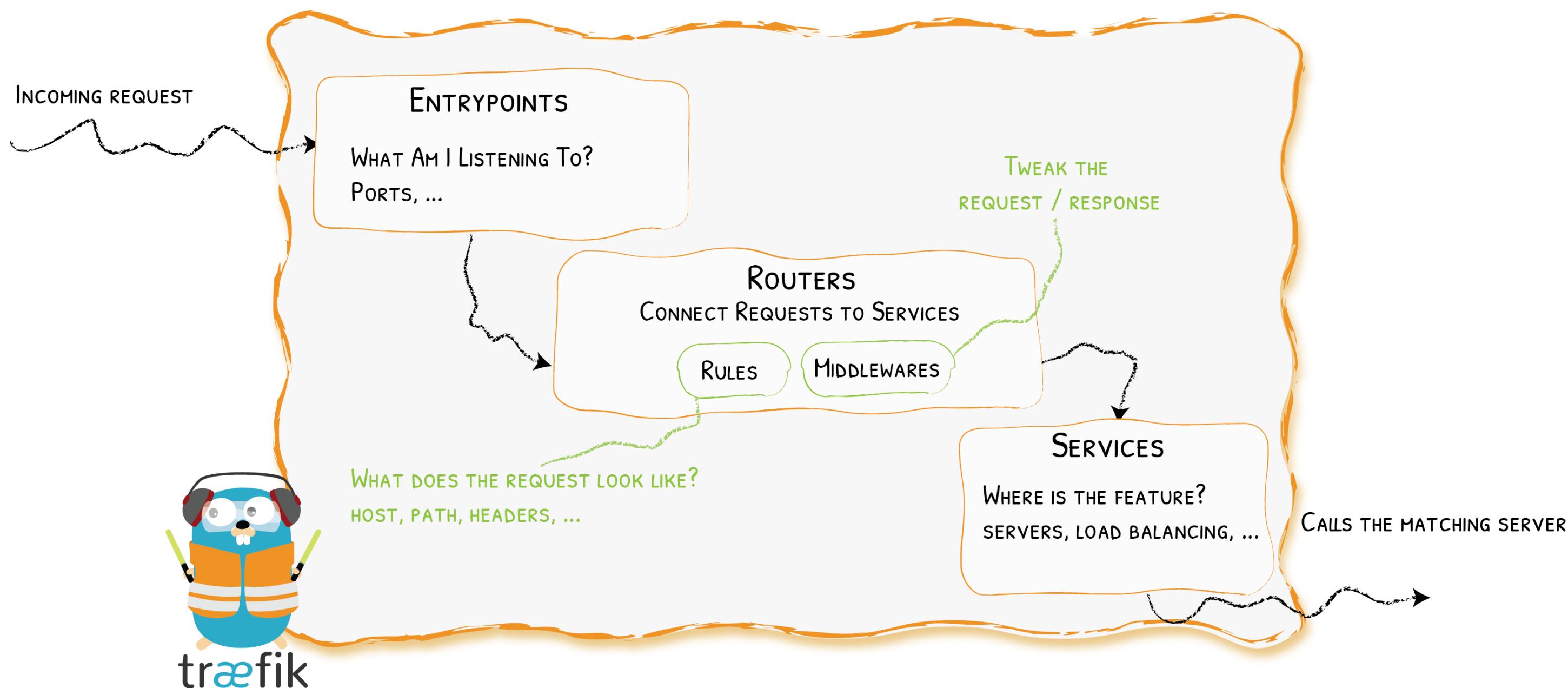
# Middlewares



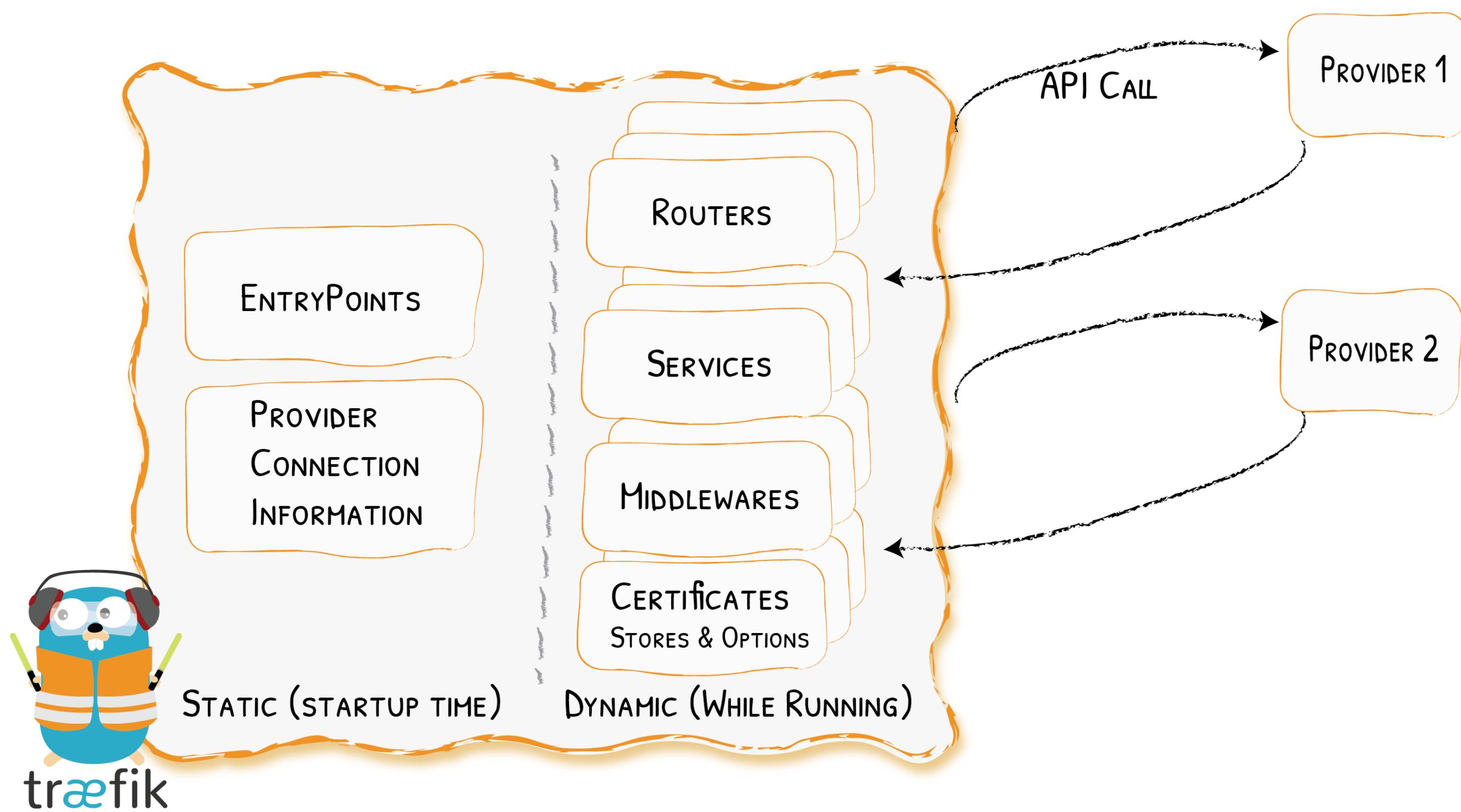
# Services



# Architecture (Again) At A Glance

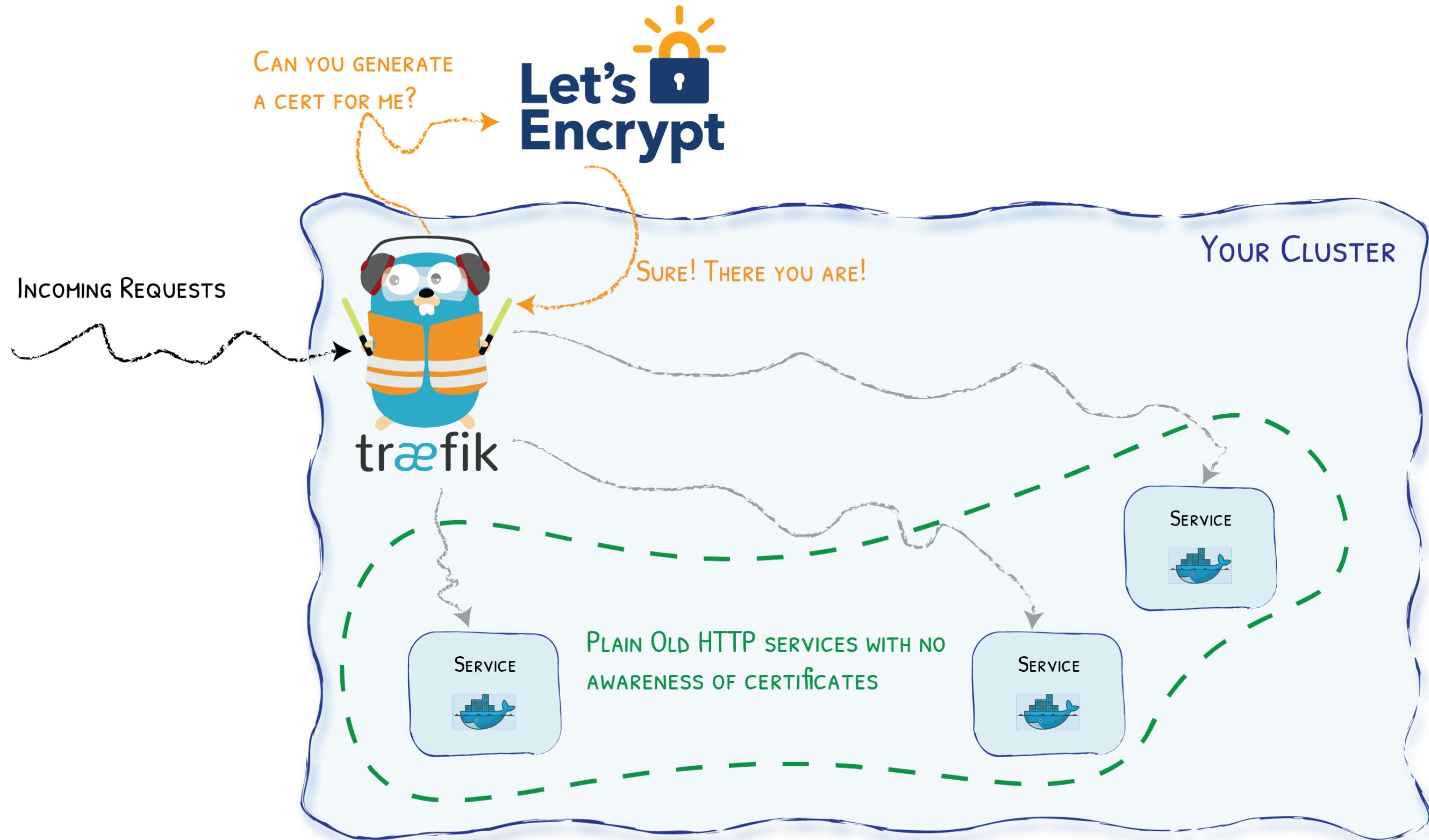


# Static & Dynamic Configuration

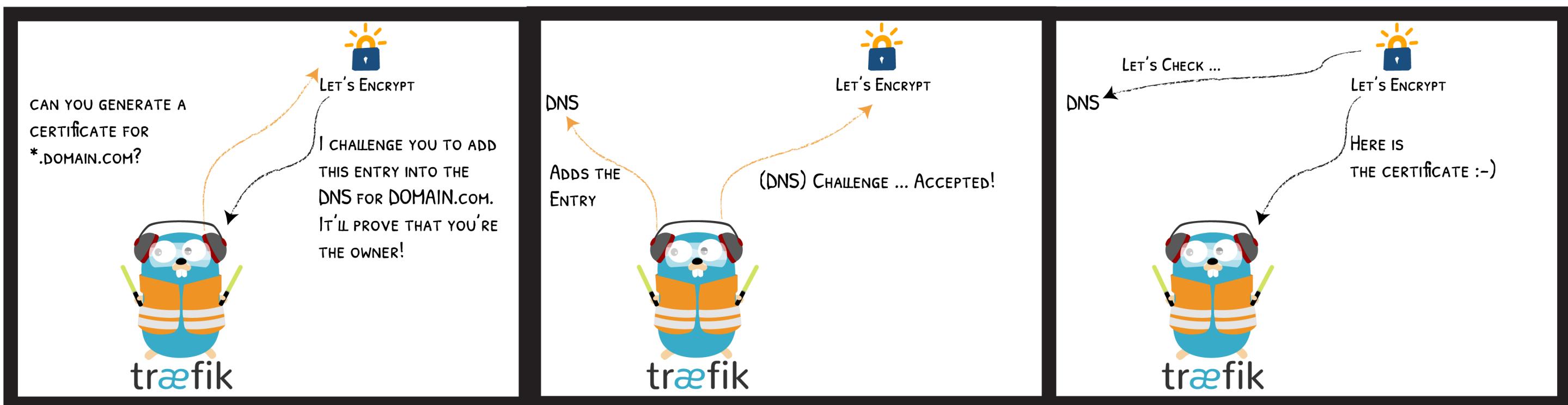


# Traefik And Let's Encrypt

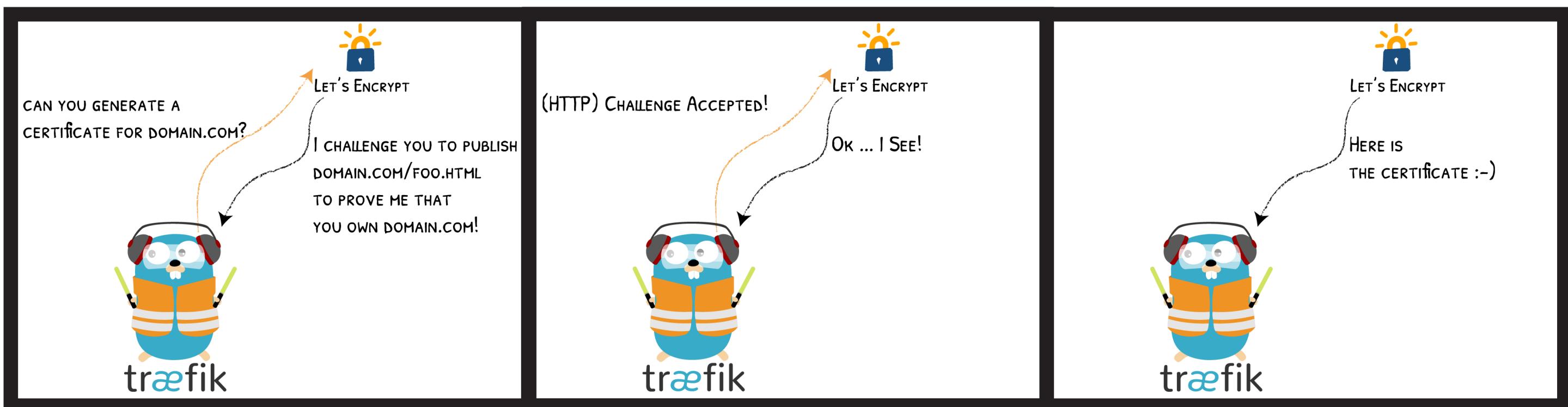
# HTTPS & Let's Encrypt



# Let's Encrypt DNS Challenge



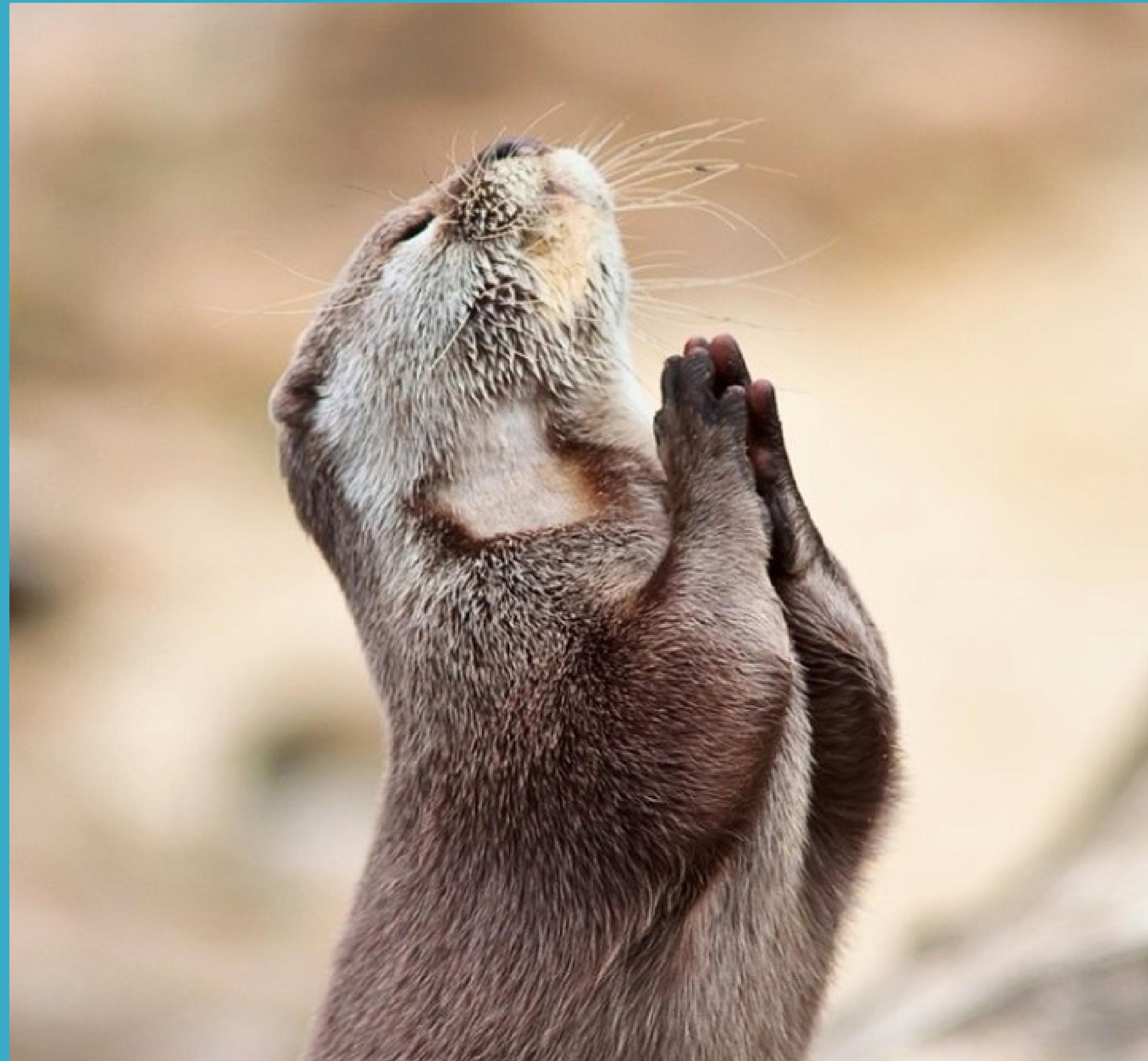
# Let's Encrypt HTTP Challenge



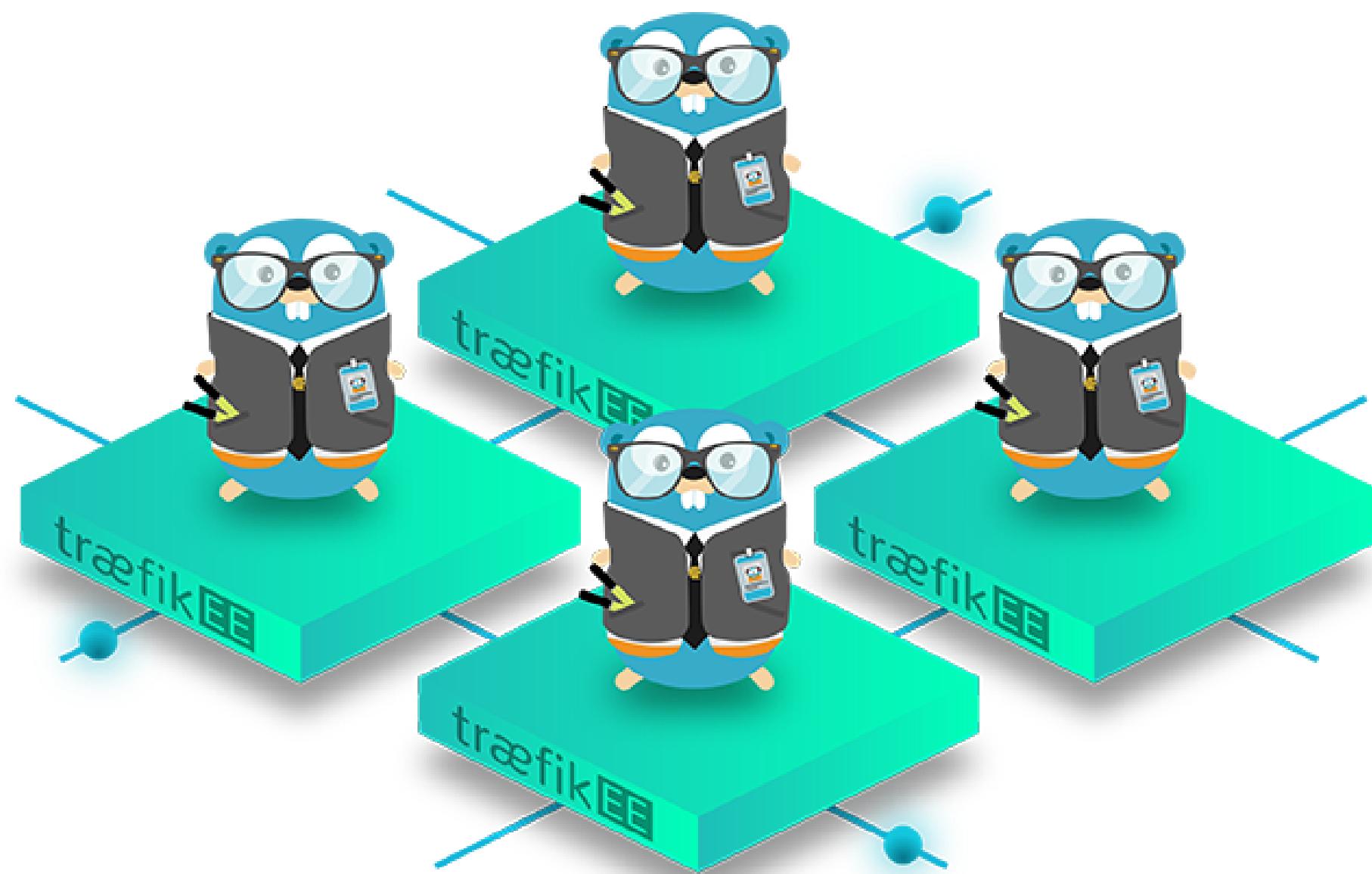
# Let's Encrypt TLS Challenge



# Demo



# Traefik Also Comes In Herd



HIGH AVAILABILITY

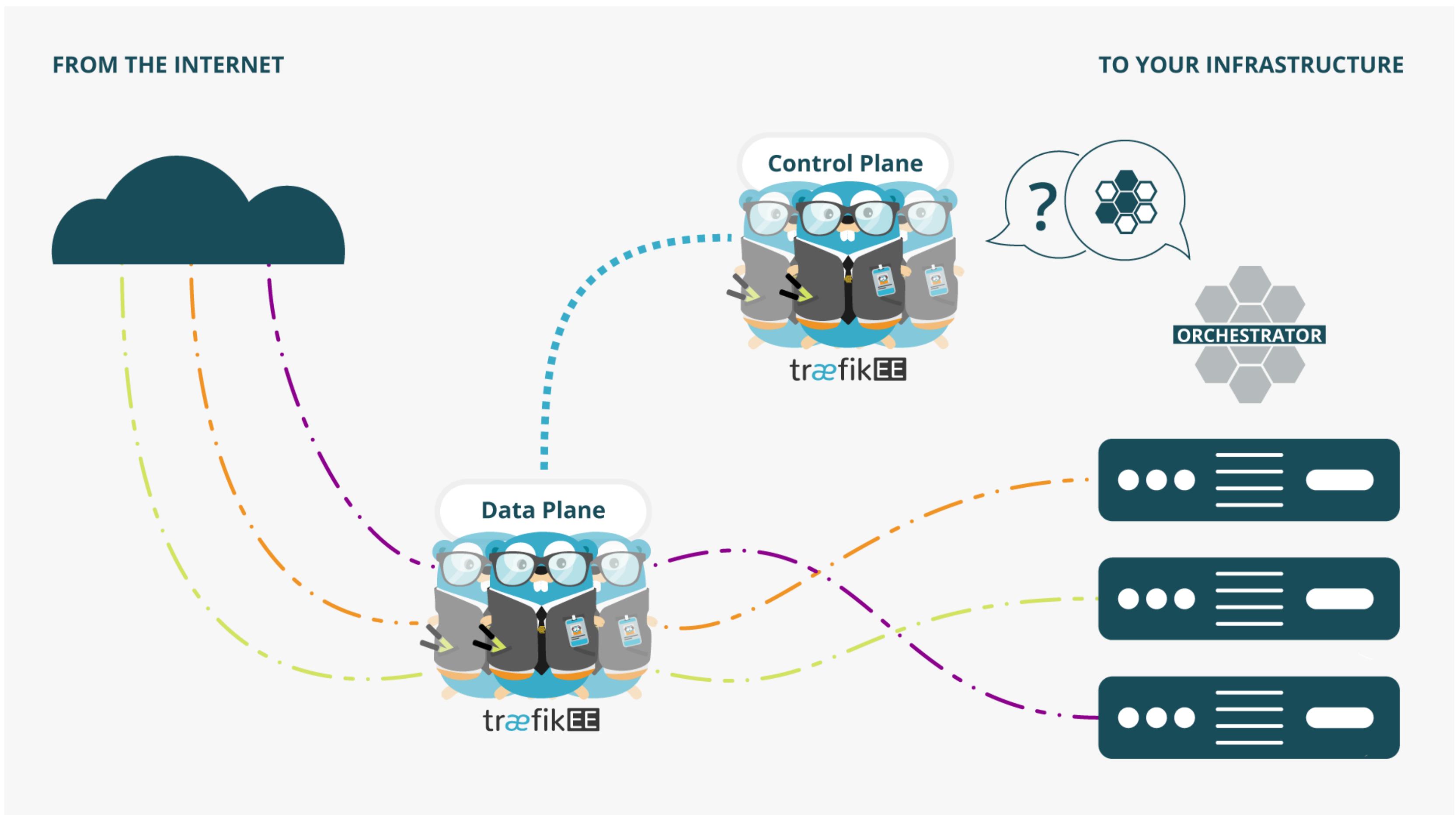
traefik ENTERPRISE EDITION

SECURITY

traefik ENTERPRISE EDITION

SCALABILITY

traefik ENTERPRISE EDITION



# As Simple As Traefik

- Install it:

```
# Cluster Installation
traefikeectl install \
--licensekey="SuperSecretLicence" \
--dashboard \
--kubernetes # Or --swarm
```

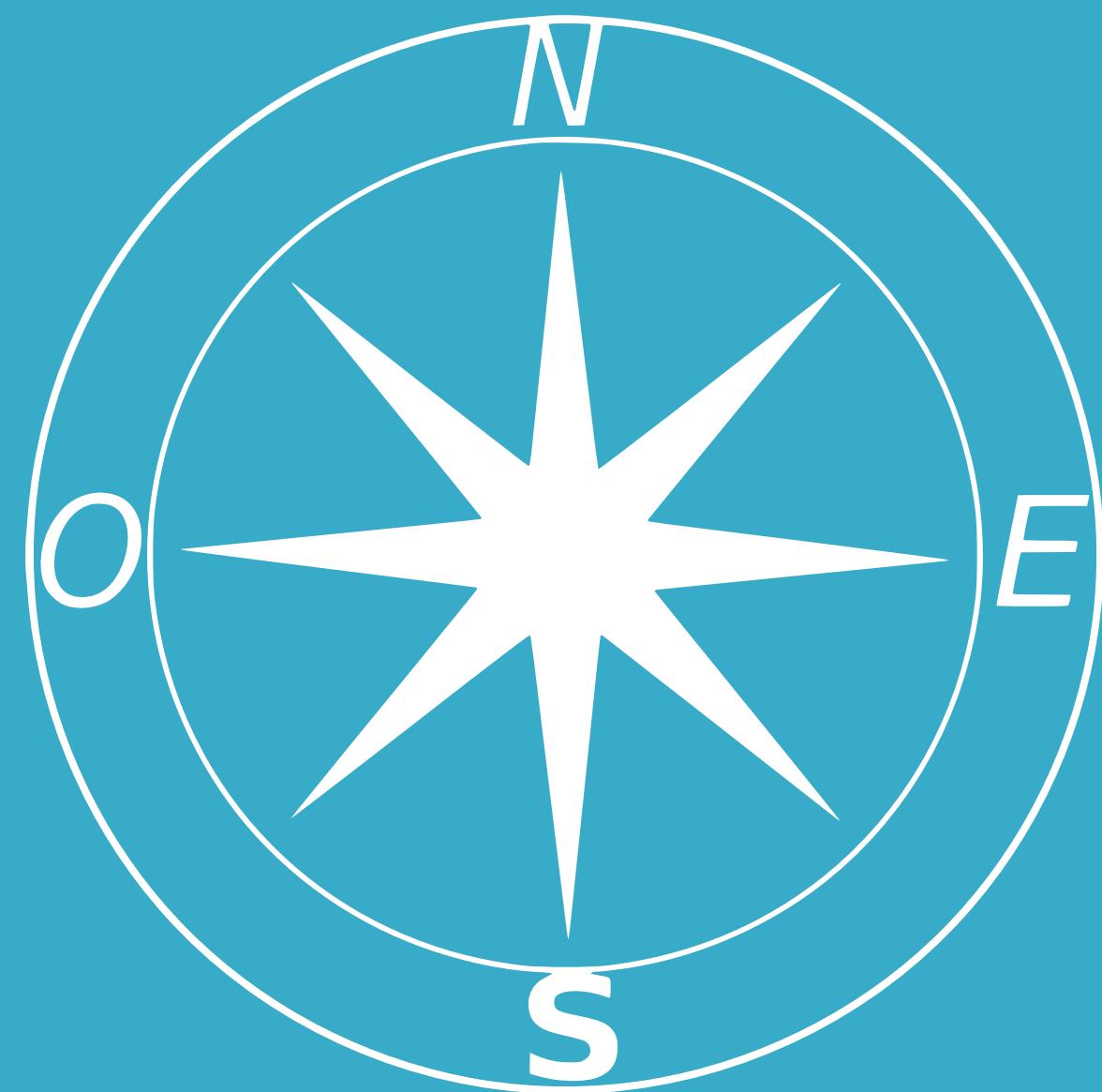
- Configure it:

```
# Routing Configuration, same as Traefik's
traefikeectl deploy \
--defaultentrypoints=http,https \
--entryPoints='Name:http Address::80' \
--entryPoints='Name:https Address::443 TLS' \
--logLevel=INFO \
--kubernetes
```

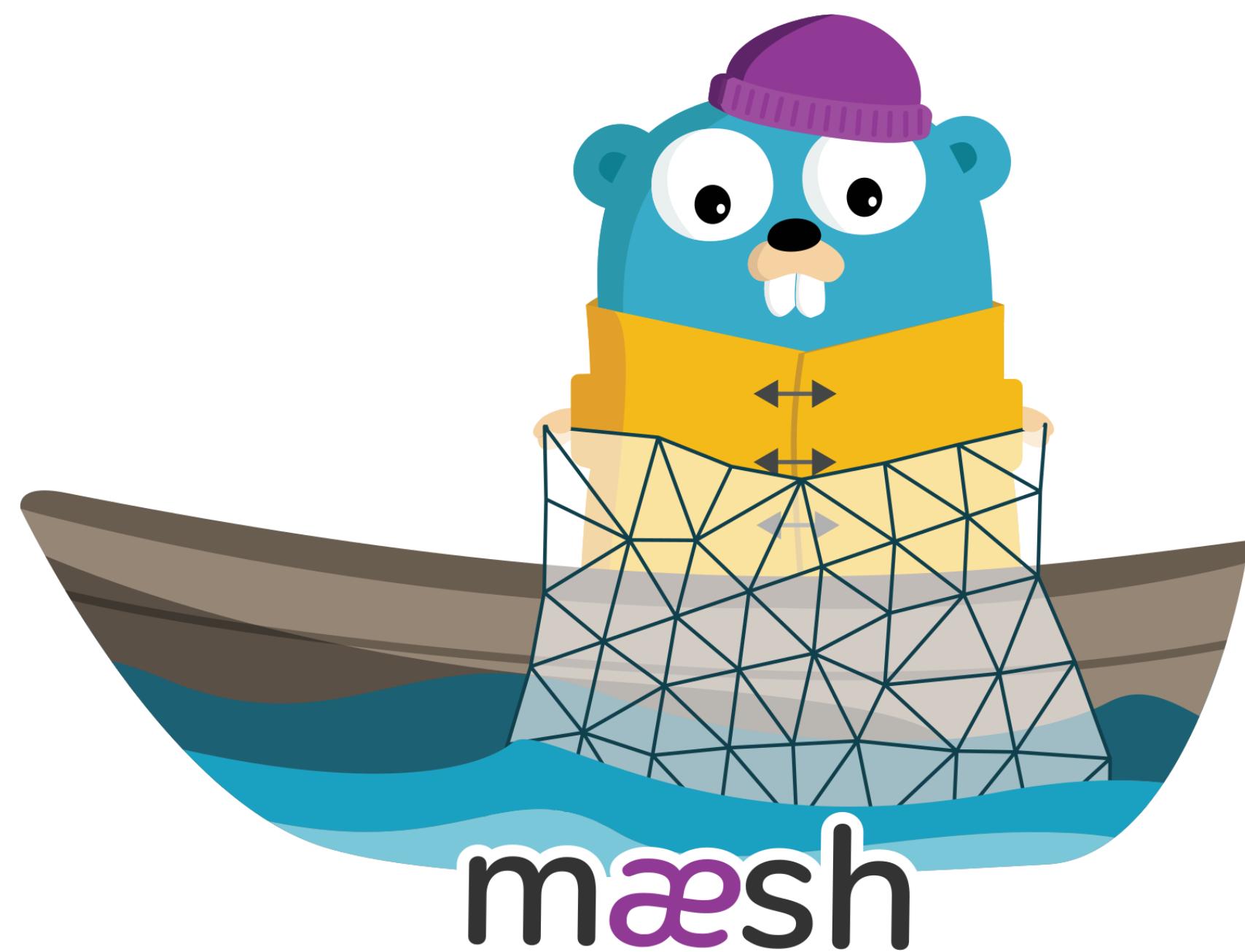
# Free Trial

<https://containo.us/traefikee>

# East / West Traefik



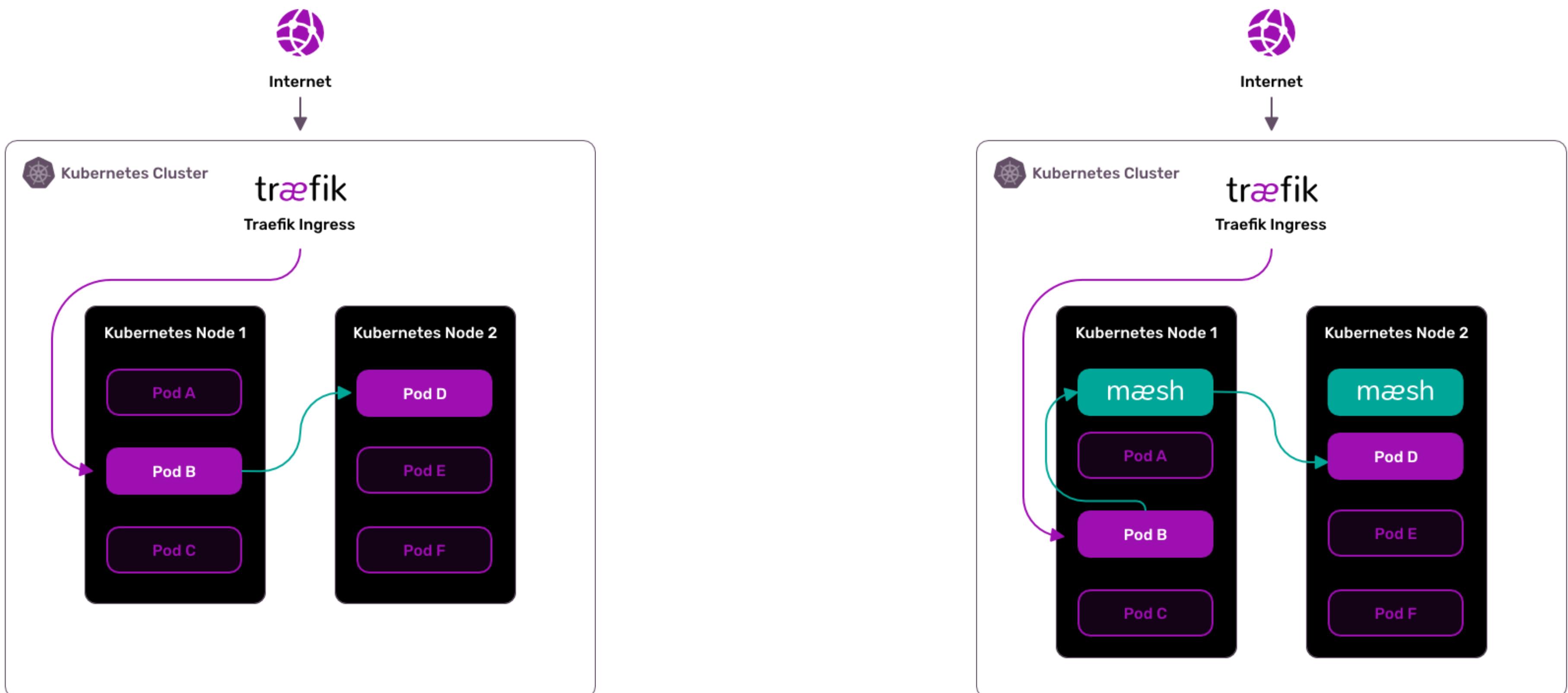
# Say Hello To Maesh



# What Is Maesh?

*Maesh is a lightweight, easy to configure, and non-invasive service mesh that allows visibility and management of the traffic flows inside any Kubernetes cluster.*

# Maesh Architecture



# More On Maesh

- Built on top of Traefik,
- SMI (Service Mesh Interface specification) compliant,
- Opt-in by default.

Maesh Website

# That's All Folks!



We Have  
Stickers!

traefik

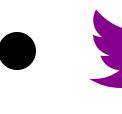
# We Are Hiring!



**CONTAINOUS**

```
docker run -it containous/jobs
```

# Thank You!

-  @michaelmatur
-  mmatur



- Slides (HTML): <https://containous.github.io/slides/meetup-openshift-paris-2020>
- Slides (PDF): <https://containous.github.io/slides/meetup-openshift-paris-2020/slides.pdf>
- Source on : <https://github.com/containous/slides/tree/meetup-openshift-paris-2020>