

Leveraging Traefik for a Highly Available Ingress Controller on Docker Enterprise

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Andy Clemenko

andy@stackrox.com

@clemenko



<https://andyc.info/traefik>

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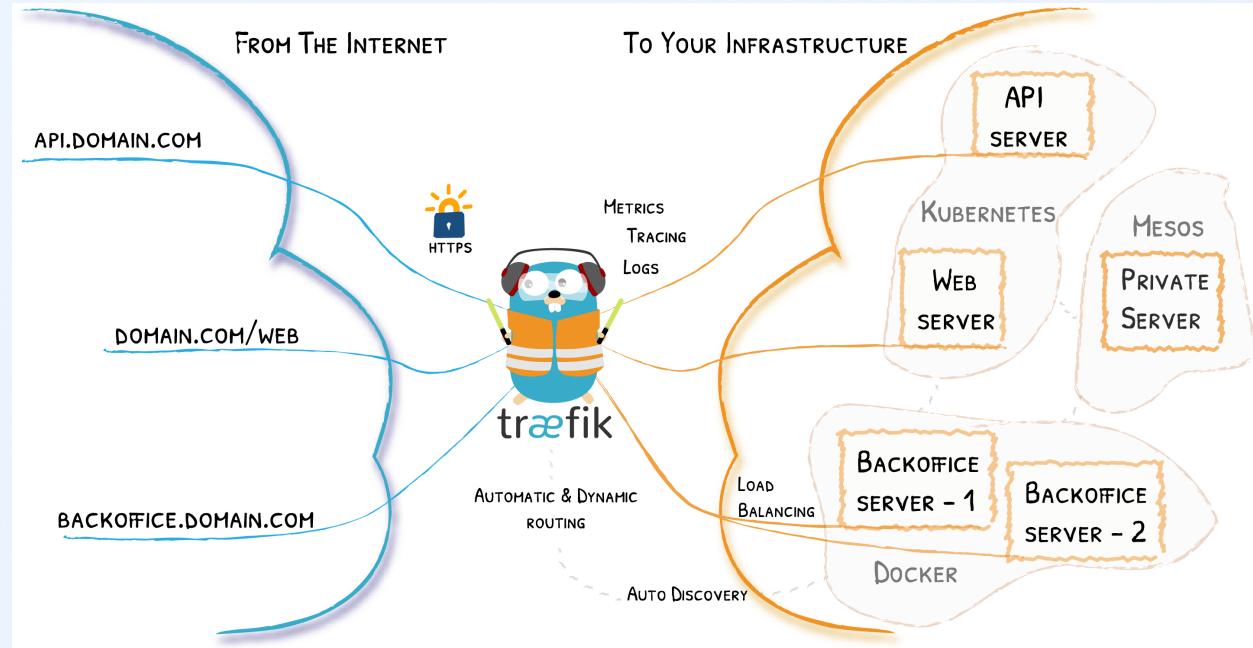
Who am I?

- Former DoD Contractor
- Docker Senior Solutions Architect/Principal Solutions Engineer
- Drinking Container Koolaid for almost 6 years
- Loving Traefik for about 4 years
- Run Traefik with Docker Compose Personally
- Recommend Traefik on K8s Professionally



Why Traefik?

- Dynamic Configuration
- Empower Developer
- Declarative
- Look Cool!



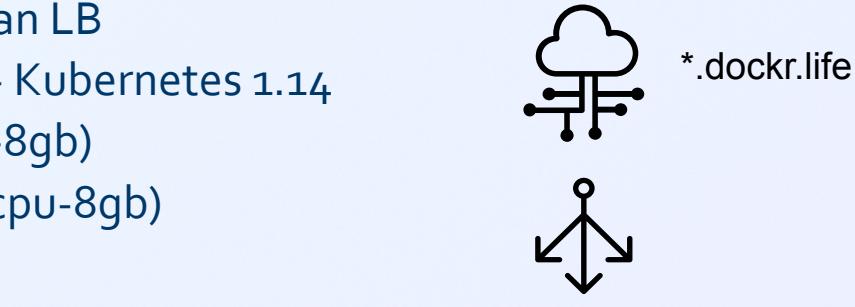
Why High Availability (HA)?

- Eliminate Single Point of Failure (SPOF)
- Resilient for Upgrades
- Take Time Off
- Look Cool!



What Are We Building?

- External Load Balancer - DigitalOcean LB
- Six Node Docker Enterprise Cluster - Kubernetes 1.14
- Three HA K8s Master Nodes (4vcpu-8gb)
- Three Worker Nodes with labels (4vcpu-8gb)
- Traefik Pinned to nodes with Labels
- NodePort or LoadBalancer



K8s Masters

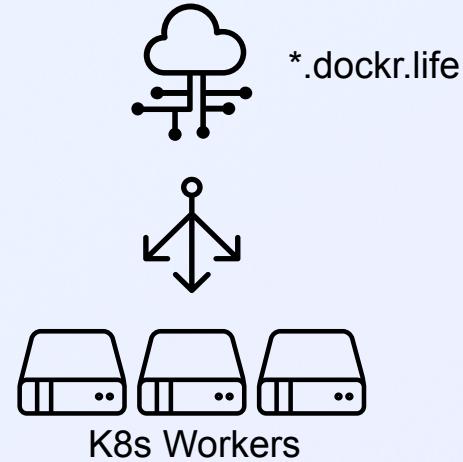


K8s Workers



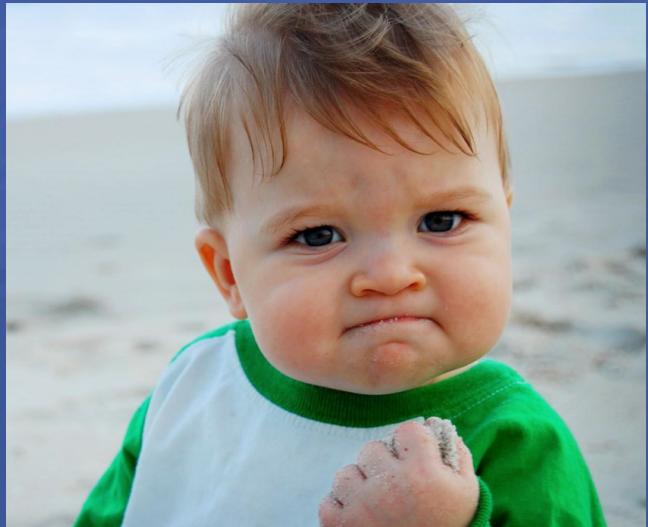
Network Path

- Wild Card DNS
- Load Balancer
- Worker Node
- Traefik service/pod
- App service/pod



Demo

<https://andyc.info/traefik>



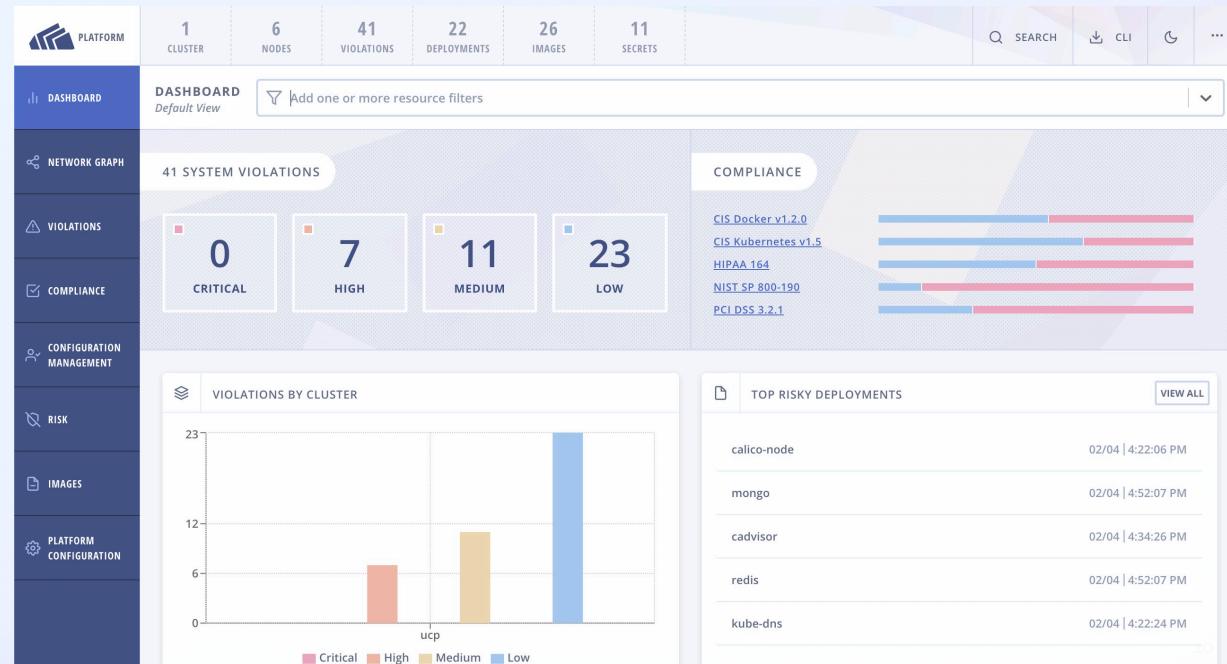
Future?

- Where to deploy?
 - Top of Rack
 - AZ?
- TLS - Considerations - [https://docs.traefik.io/
user-guides/crd-acme/](https://docs.traefik.io/user-guides/crd-acme/)
 - Persistent Storage
 - Let's Encrypt
- Traefik Enterprise Edition



StackRox

- Actionable advise from Security Observability
- Kubernetes Native
- Security for full lifecycle
 - Build
 - Deploy
 - Runtime



Questions?
Thanks for watching!

@clemenko / andy@stackrox.com

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