INGRESS

Ingress

Overview

In an earlier chapter, we learned about using a Service to expose a containerized application outside of the cluster. We use Ingress Controllers and Rules to do the same function. The difference is efficiency. Instead of using lots of services, such as LoadBalancer, you can route traffic based on the request host or path. This allows for centralization of many services to a single point.

An Ingress Controller is different than most controllers, as it does not run as part of the kube-controller-manager binary. You can deploy multiple controllers, each with unique configurations. A controller uses Ingress Rules to handle traffic to and from outside the cluster.

There are many ingress controllers such as GKE, nginx, Traefik, Contour and Envoy to name a few. Any tool capable of reverse proxy should work. These agents consume rules and listen for associated traffic. An Ingress Rule is an API resource that you can create with **kubectl**. When you create that resource, it reprograms and reconfigures your Ingress Controller to allow traffic to flow from the outside to an internal service. You can leave a service as a ClusterIP type and define how the traffic gets routed to that internal service using an Ingress Rule.