



# kubernetes

---

*Kubernetes: Ingress*

## *KUBERNETES : Advance of Kuebernetes*

---

- **Ingress** is an object that allows access to your Kubernetes services from outside the Kubernetes cluster.
- An **API object** that manages **external access** to the services in a cluster, typically HTTP.
- Ingress exposes **HTTP and HTTPS** routes from outside the cluster to **services** within the cluster. Traffic routing is controlled by rules defined on the **Ingress resource**.
- An Ingress can be configured to give Services externally-reachable URLs, load balance traffic, terminate SSL / TLS, and offer name based virtual hosting.

# *KUBERNETES : Advance of Kuebernetes*

---

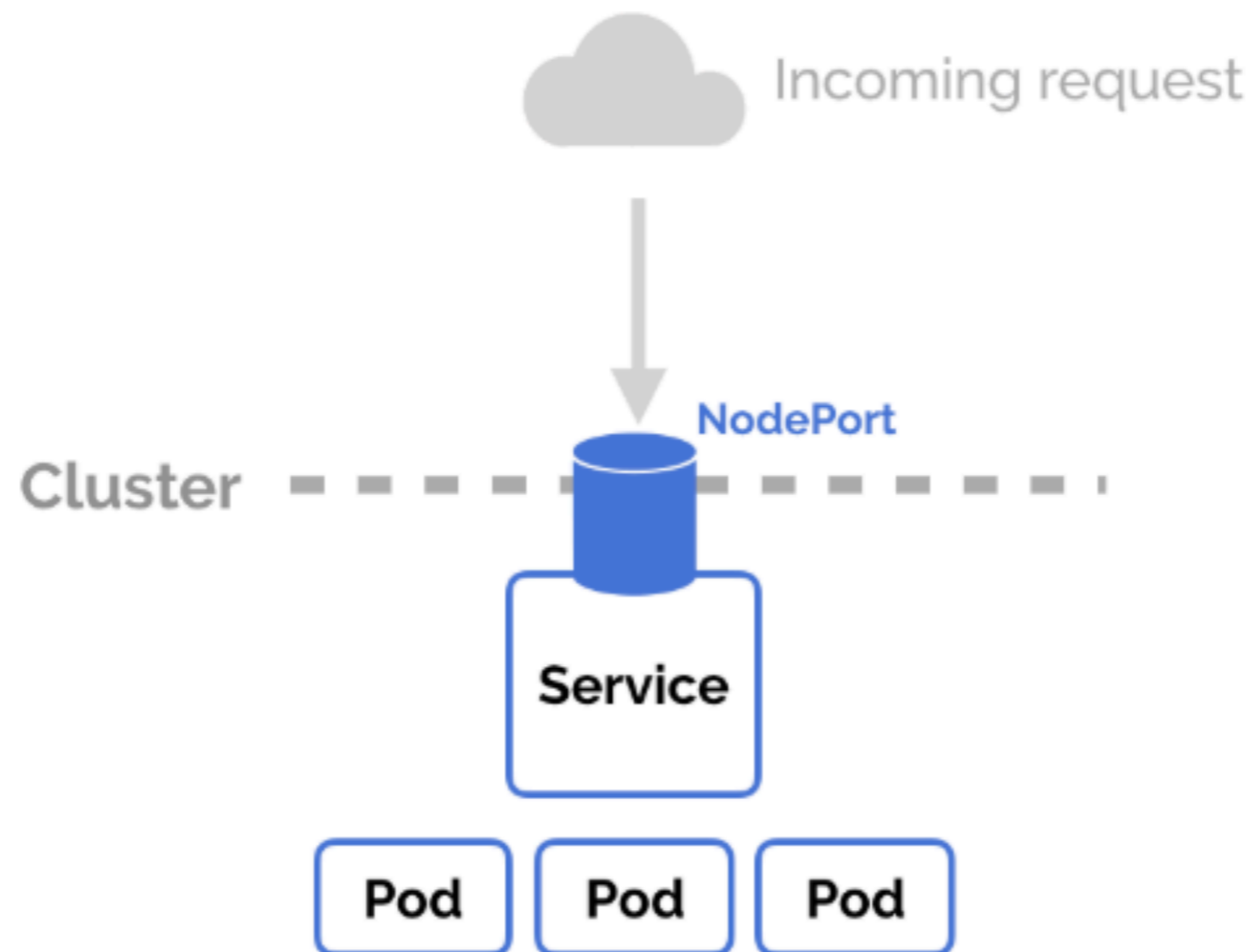
## **Kubernetes Ingress vs LoadBalancer vs NodePort**

- **NodePort:** NodePort is a configuration setting you declare in a service's YAML. Then, Kubernetes will allocate a specific port on each Node to that service, and any request to your cluster on that port gets forwarded to the service.
- This is cool and easy, it's just not super robust. You don't know what port your service is going to be allocated, and the port might get re-allocated at some point.

# *KUBERNETES : Advance of Kuebernetes*

## Kubernetes Ingress vs LoadBalancer vs NodePort

### NodePort



# *KUBERNETES : Advance of Kuebernetes*

---

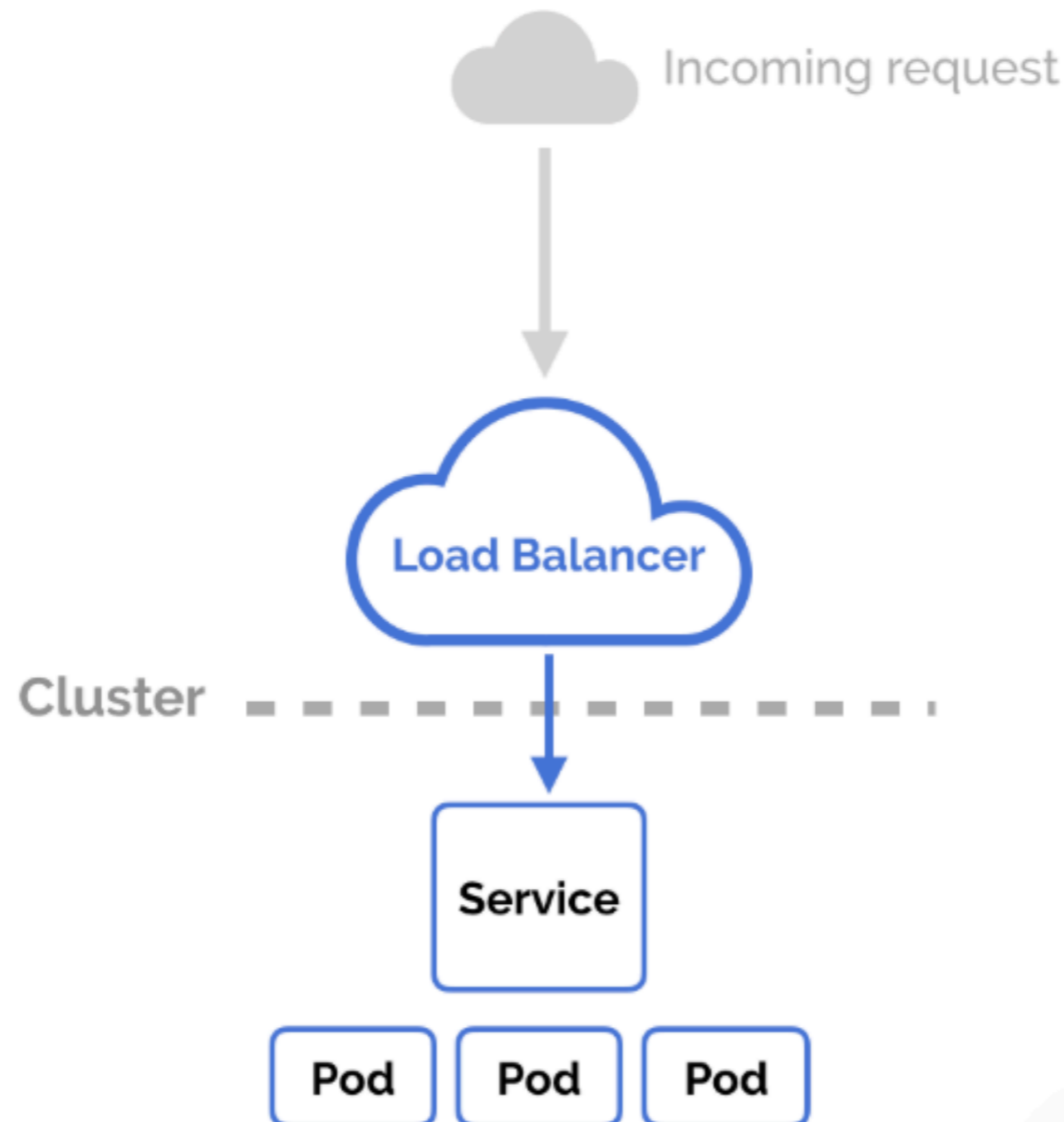
## **Kubernetes Ingress vs LoadBalancer vs NodePort**

- **LoadBalancer:** You can set a service to be of type LoadBalancer the same way you'd set NodePort. But there needs to be some external load balancer functionality in the cluster, typically implemented by a cloud provider.
- This is typically heavily dependent on the cloud provider—GKE creates a Network Load Balancer with an IP address that you can use to access your service.
- Every time you want to expose a service to the outside world, you have to create a **new LoadBalancer** and get an IP address.

# *KUBERNETES : Advance of Kuebernetes*

## **Kubernetes Ingress vs LoadBalancer vs NodePort**

**LoadBalancer**



# *KUBERNETES : Advance of Kuebernetes*

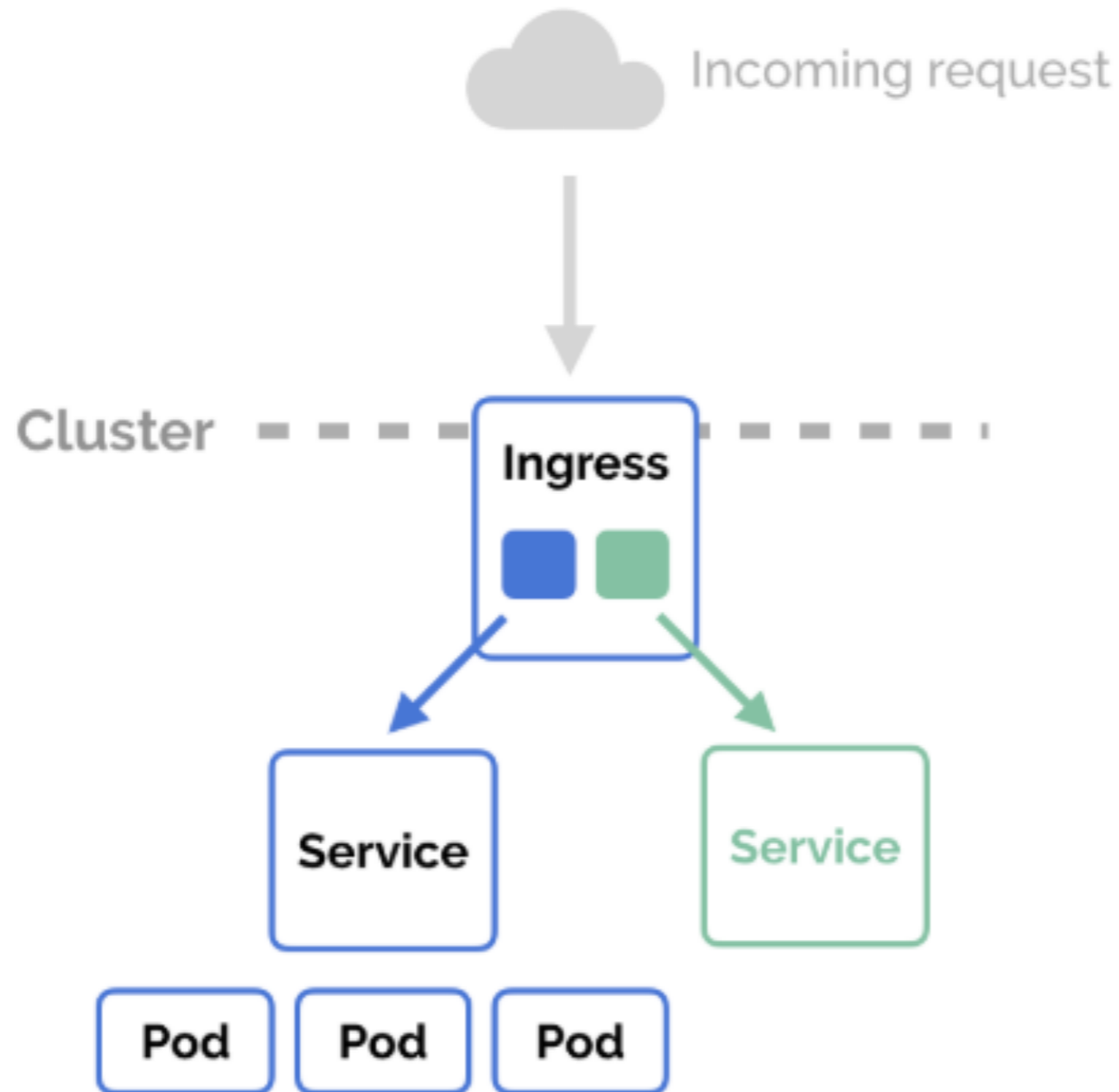
---

## **Kubernetes Ingress vs LoadBalancer vs NodePort**

- **Ingress:** NodePort and LoadBalancer let you expose a service by specifying that value in the service's type. Ingress, on the other hand, is a completely independent resource to your service.
- You declare, create and destroy it separately to your services.
- Ingress makes it decoupled and isolated from the services you want to expose. It also helps you to consolidate routing rules into one place.
- The one downside is that you need to configure an Ingress Controller for your cluster. But that's pretty easy.

# *KUBERNETES : Advance of Kuebernetes*

## **Kubernetes Ingress vs LoadBalancer vs NodePort**





# *KUBERNETES : Advance of Kuebernetes*

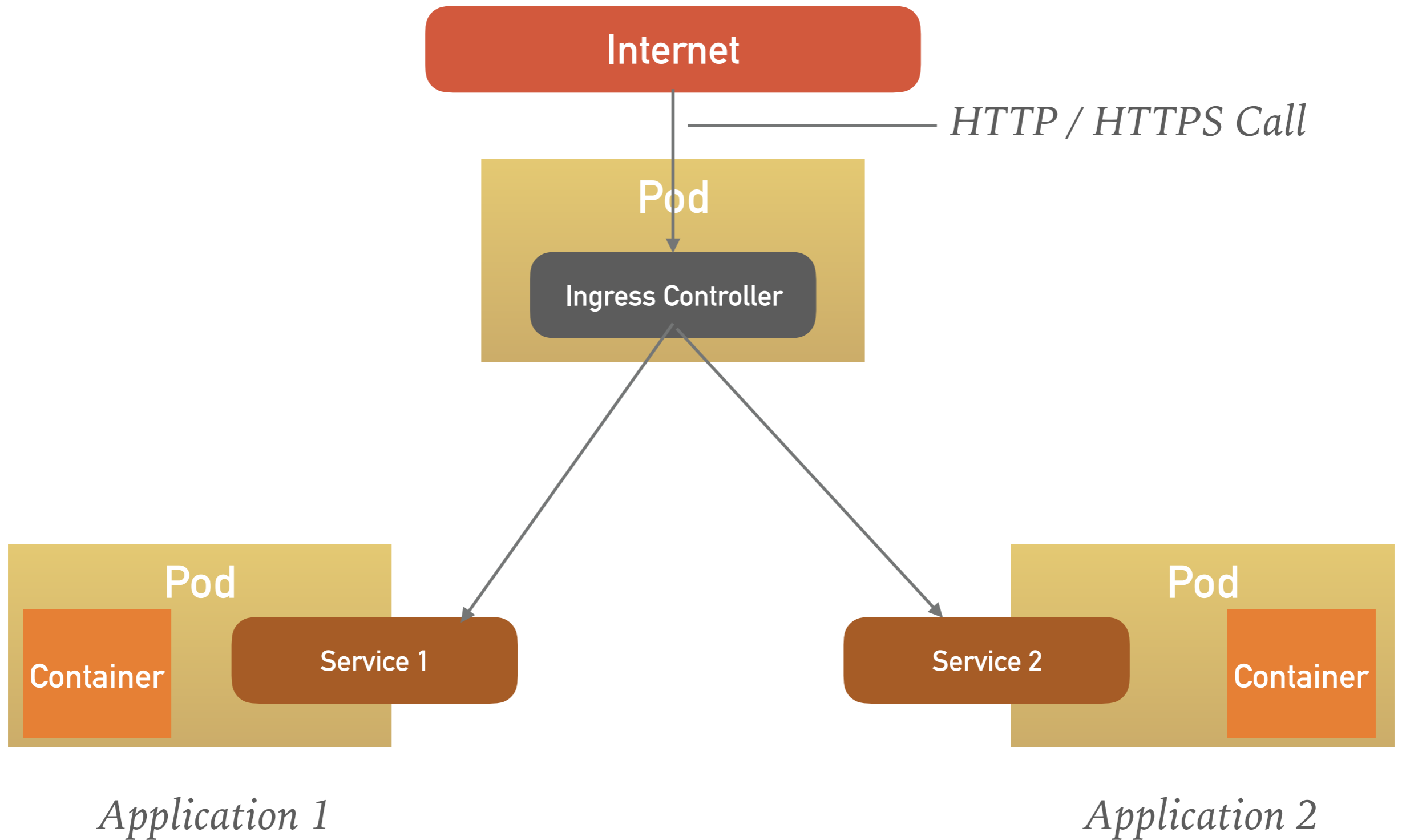
---

## **Kubernetes Ingress vs LoadBalancer vs NodePort**

- **Ingress:** NodePort and LoadBalancer let you expose a service by specifying that value in the service's type. Ingress, on the other hand, is a completely independent resource to your service.
- You declare, create and destroy it separately to your services.
- Ingress makes it decoupled and isolated from the services you want to expose. It also helps you to consolidate routing rules into one place.
- The one downside is that you need to configure an Ingress Controller for your cluster. But that's pretty easy.

# *KUBERNETES : Advance of Kuebernetes*

---



*Will see you in Next Lecture...*

---

*Thank you!*

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the marker tip touching the paper. The background is plain white.

*See you in next lecture ...*