

**DATE : 06.11.2023**

**DT/NT : DT**

**LESSON : DEVOPS**  
**SUBJECT: KUBERNETES**

**EKS-2**  
Storage Classes, Ingress

**BATCH : B 149**

**AWS-DEVOPS**



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# Storage Classes and Ingress



# Storage Class

# The interaction between PVs and PVCs

## Provisioning

There are two ways PVs may be provisioned: statically or dynamically.

### Static

A cluster administrator creates a number of PVs. They carry the details of the real storage, which is available for use by cluster users. They exist in the Kubernetes API and are available for consumption.

### Dynamic

When none of the static PVs the administrator created match a user's PersistentVolumeClaim, the cluster may try to dynamically provision a volume specially for the PVC. This provisioning is based on **StorageClasses**.

# The interaction between PVs and PVCs

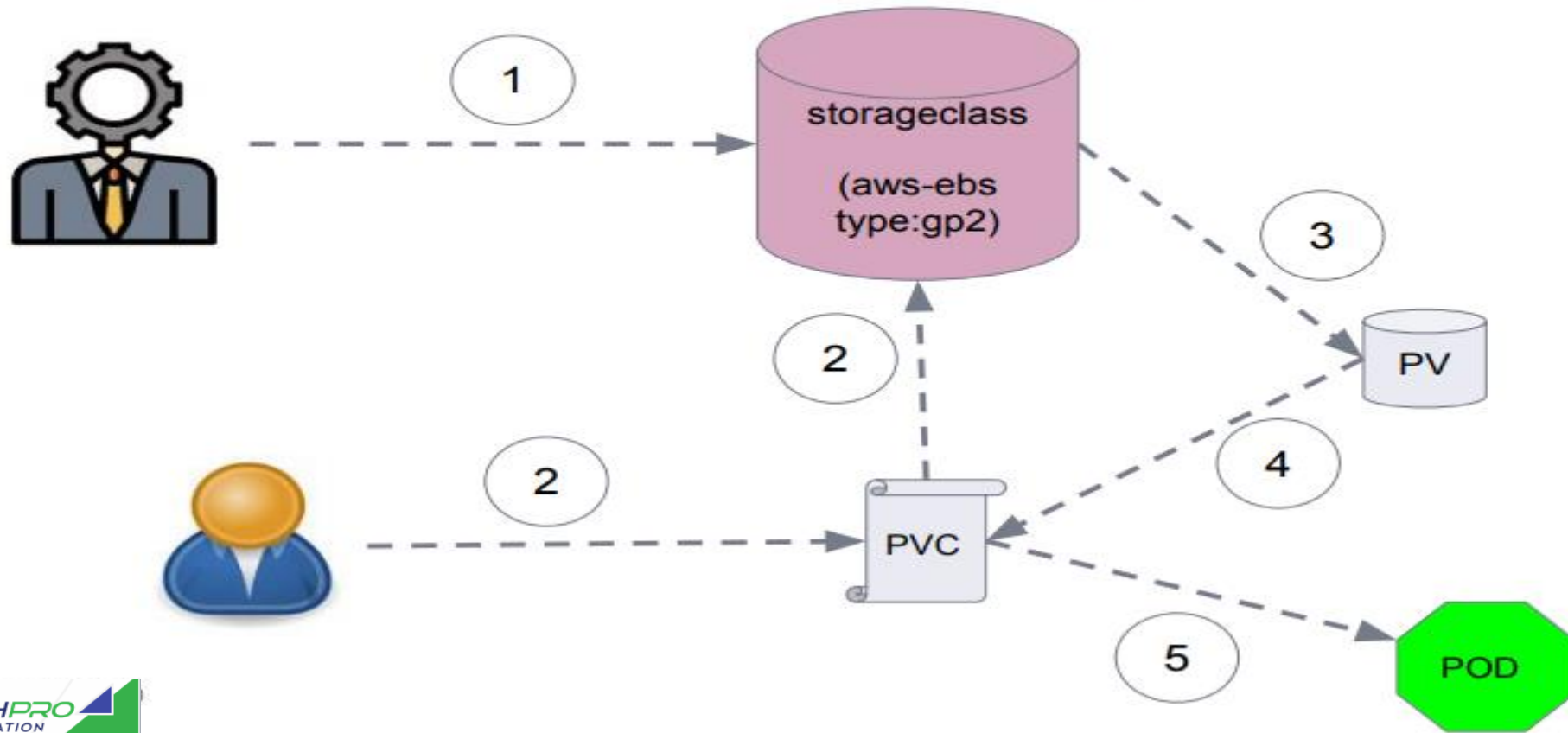
**Static**



**Dynamic**



# Dynamic PV Provisioning





## ► Storage Class

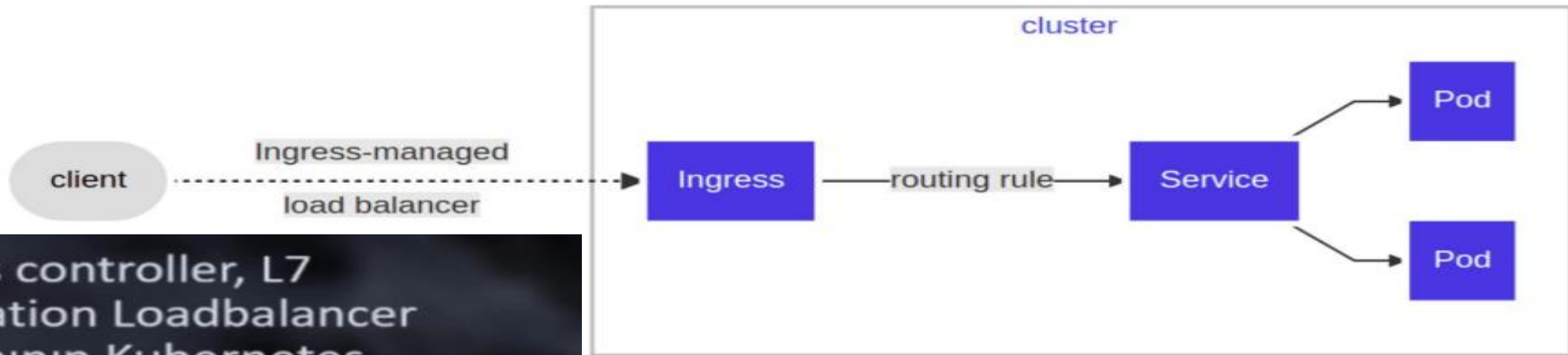
```
kind: StorageClass
apiVersion: storage.k8s.io/v1
metadata:
  name: aws-standard
  annotations:
    storageclass.kubernetes.io/is-default-class:
      "true"
provisioner: kubernetes.io/aws-ebs
parameters:
  type: gp2
  fsType: ext4
```

**Provisioner:** Each StorageClass has a provisioner that determines what volume plugin is used for provisioning PVs.

**Parameters:** Storage Classes have parameters that describe volumes belonging to the storage class. Different parameters may be accepted depending on the provisioner

# Ingress

**"An Ingress is a collection of rules that allow inbound connections to reach the cluster Services."**



Ingress controller, L7 Application Loadbalancer kavramının Kubernetes spesifikasyonlarına göre çalışan ve Kubernetes'e deploy ederek kullanabildiğimiz türüdür. Nginx, HAproxy, Traefik en bilinen ingress controller uygulamalarıdır.



# · Ingress

StoreFrontUI

Accounting

Inventory

Shipping

# Ingress

StoreFront  
Service

Accounting  
Service

Inventory  
Service

Shipping  
Service

StoreFrontUI

Accounting

Inventory

Shipping

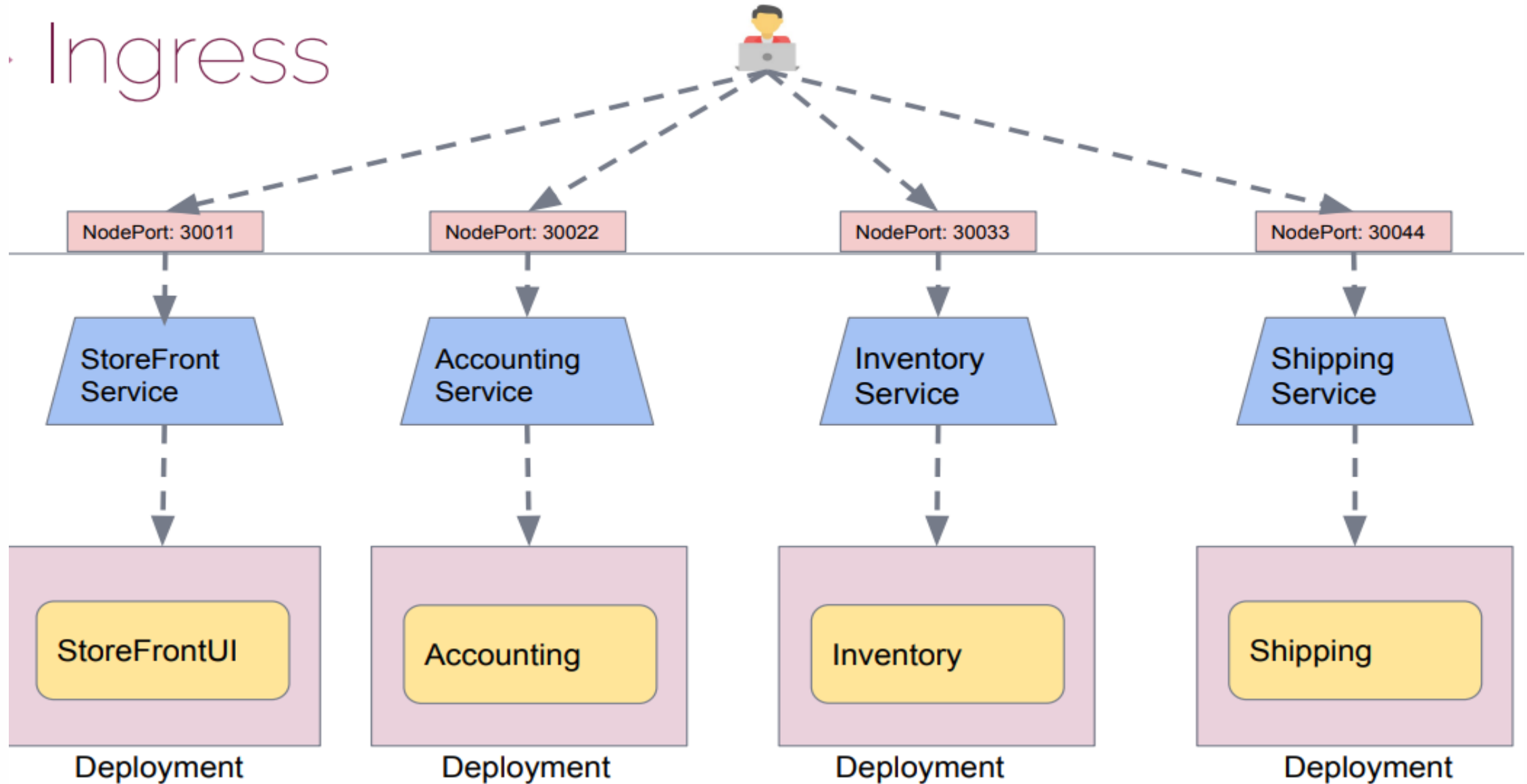
Deployment

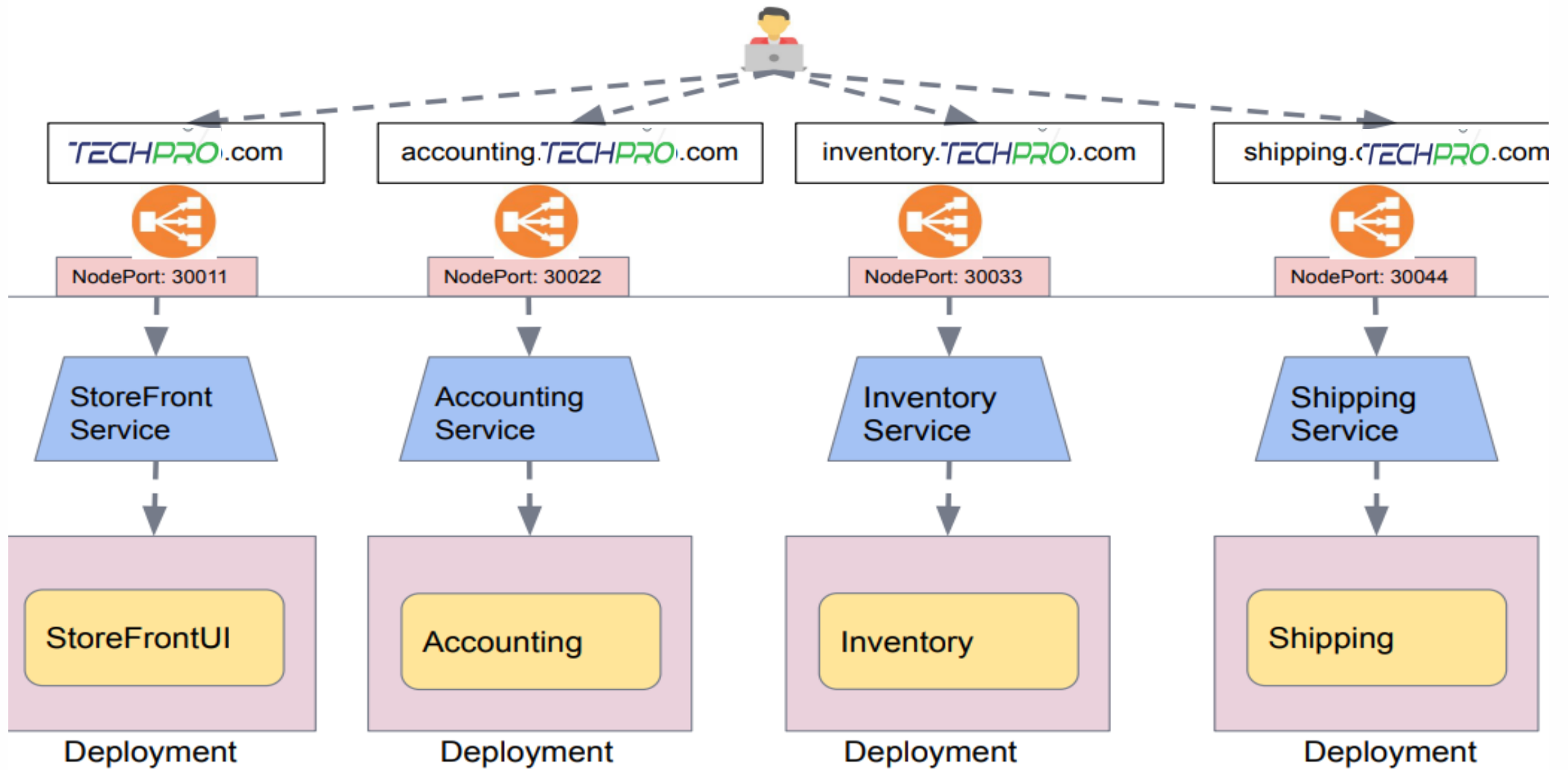
Deployment

Deployment

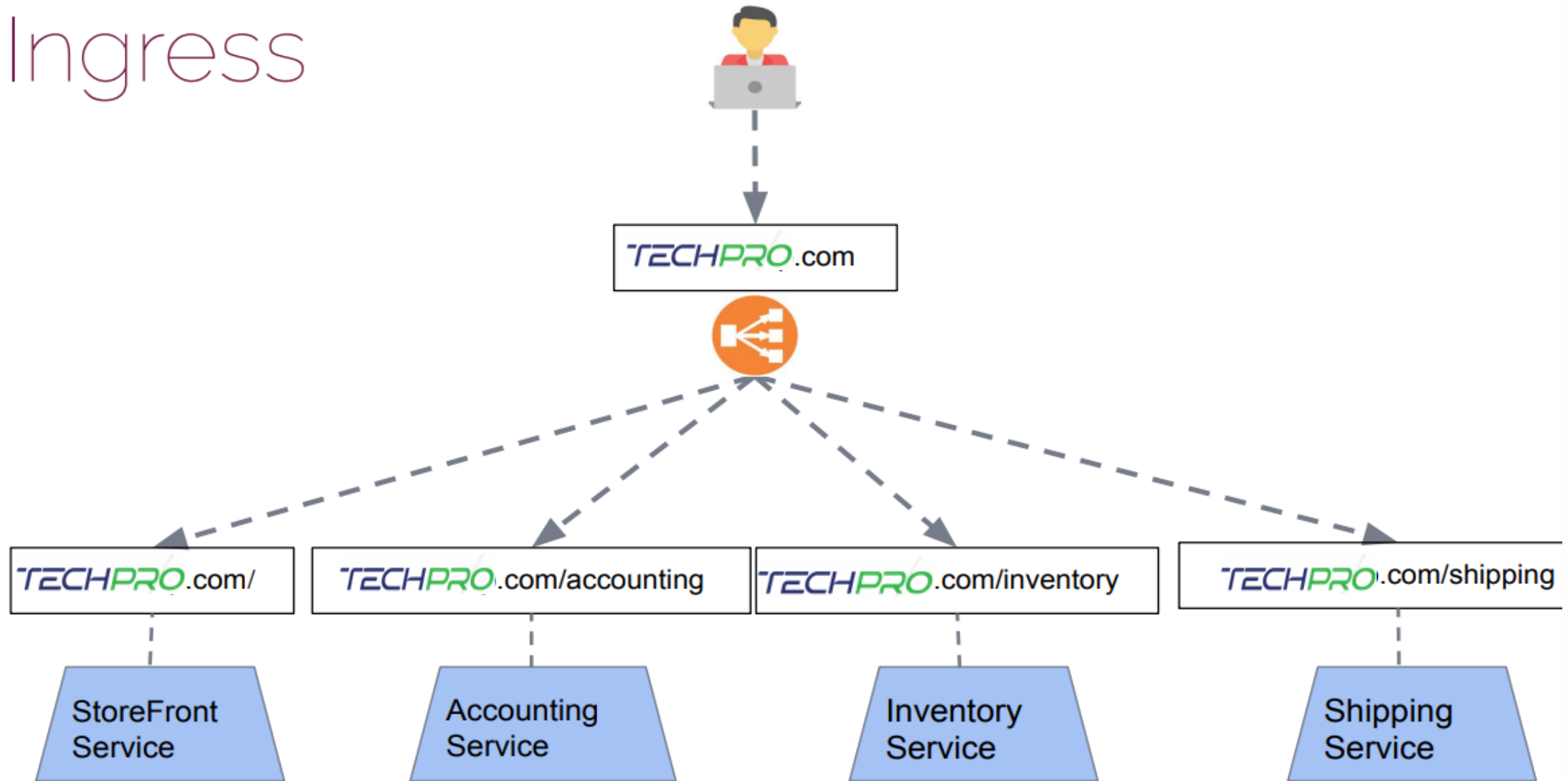
Deployment

# Ingress





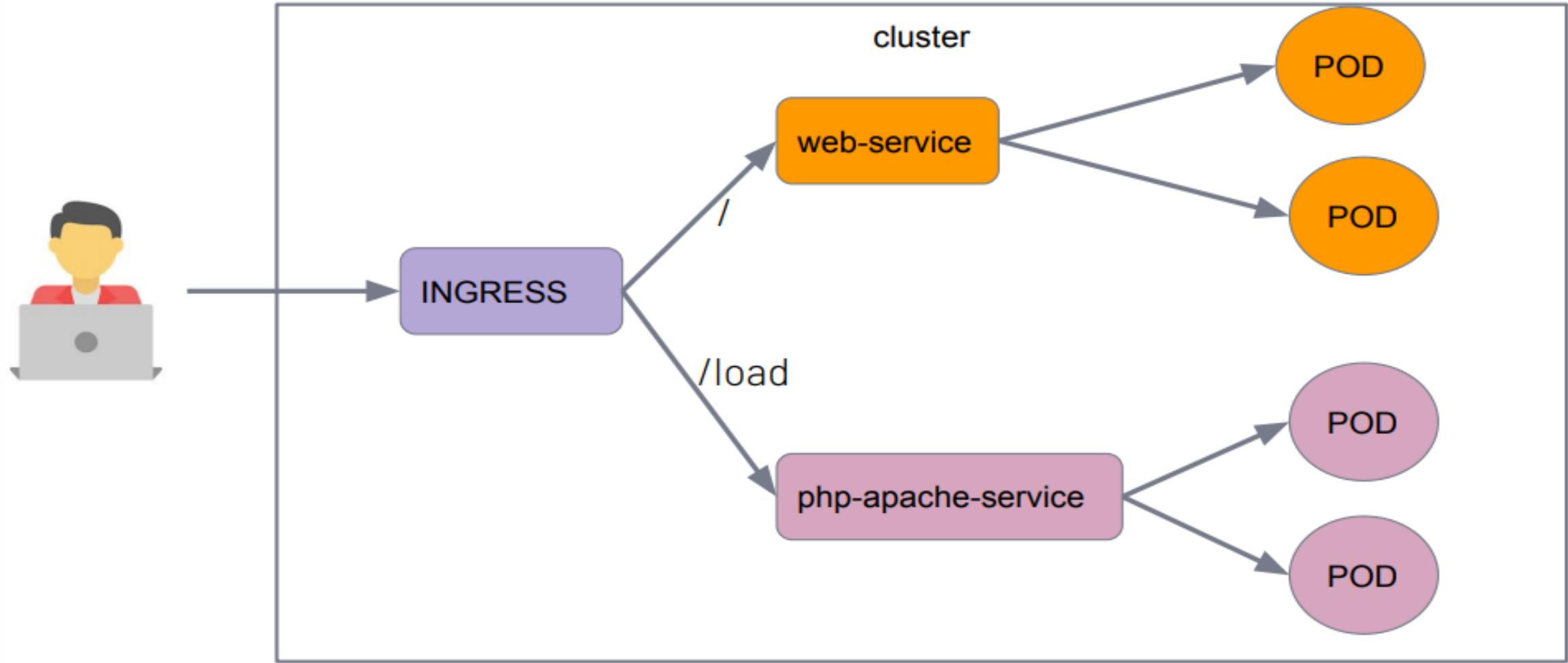
# Ingress



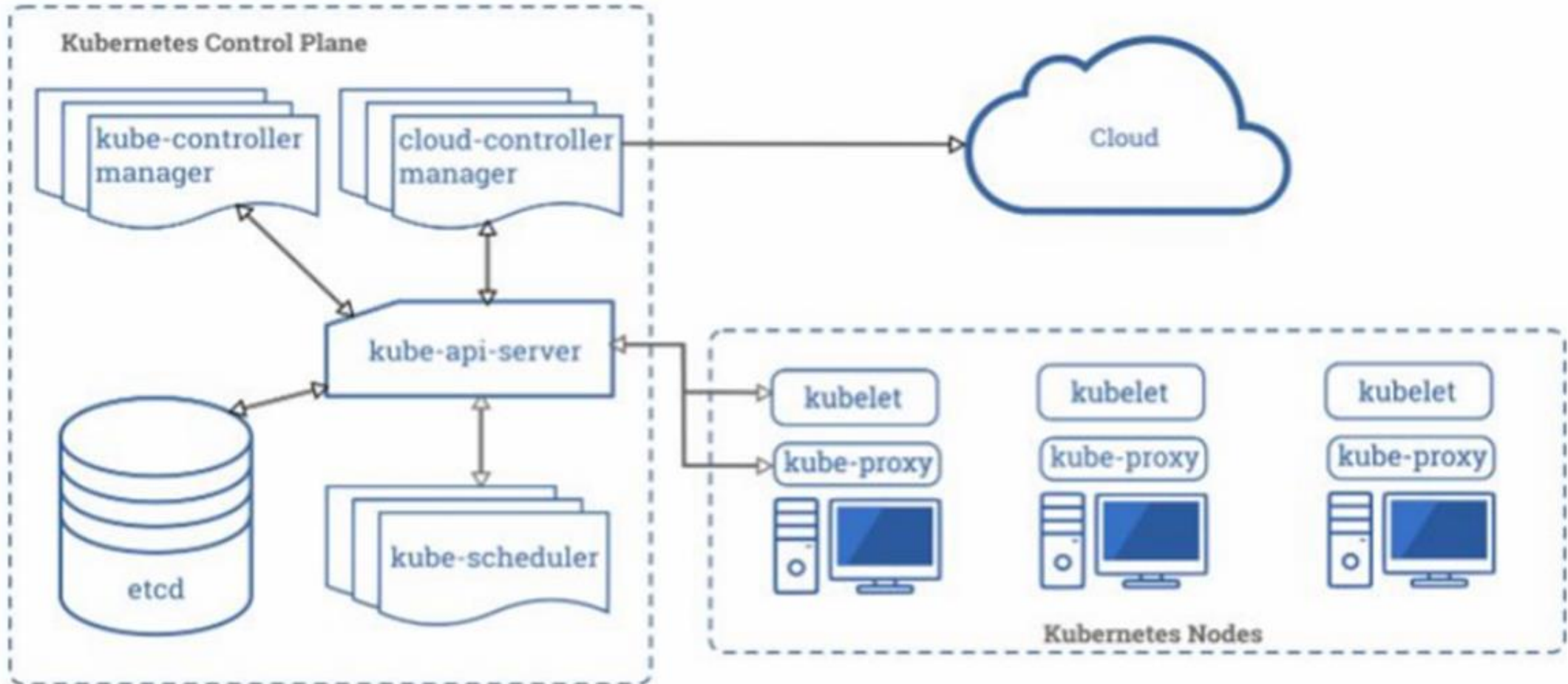
```
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: ingress-service
  annotations:
    kubernetes.io/ingress.class: "nginx"
spec:
  rules:
    - http:
        paths:
          - path: /
            pathType: Prefix
            backend:
              service:
                name: web-service
                port:
                  number: 3000
          - path: /load
            pathType: Prefix
            backend:
              service:
                name: php-apache-service
                port:
                  number: 80
```

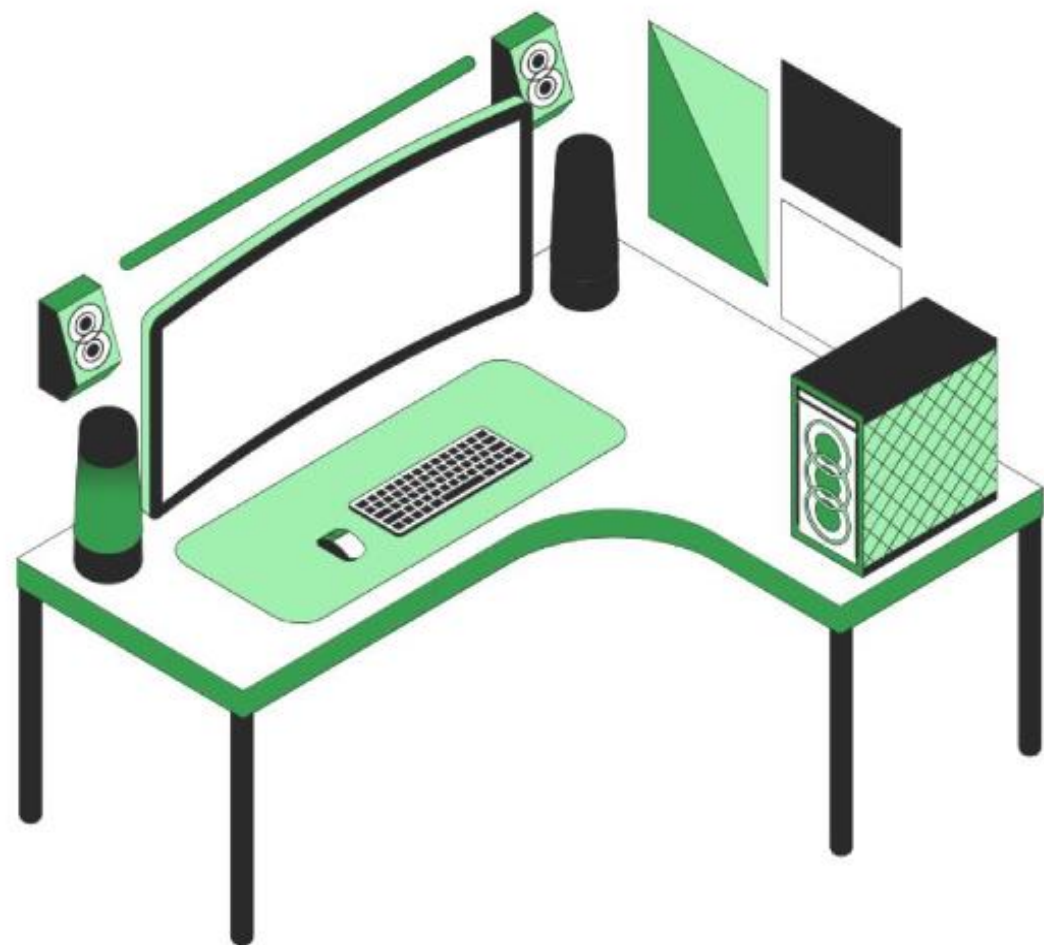


# › Ingress



# Control Plane Components





# Do you have any questions?

Send it to us! We hope you learned something new.