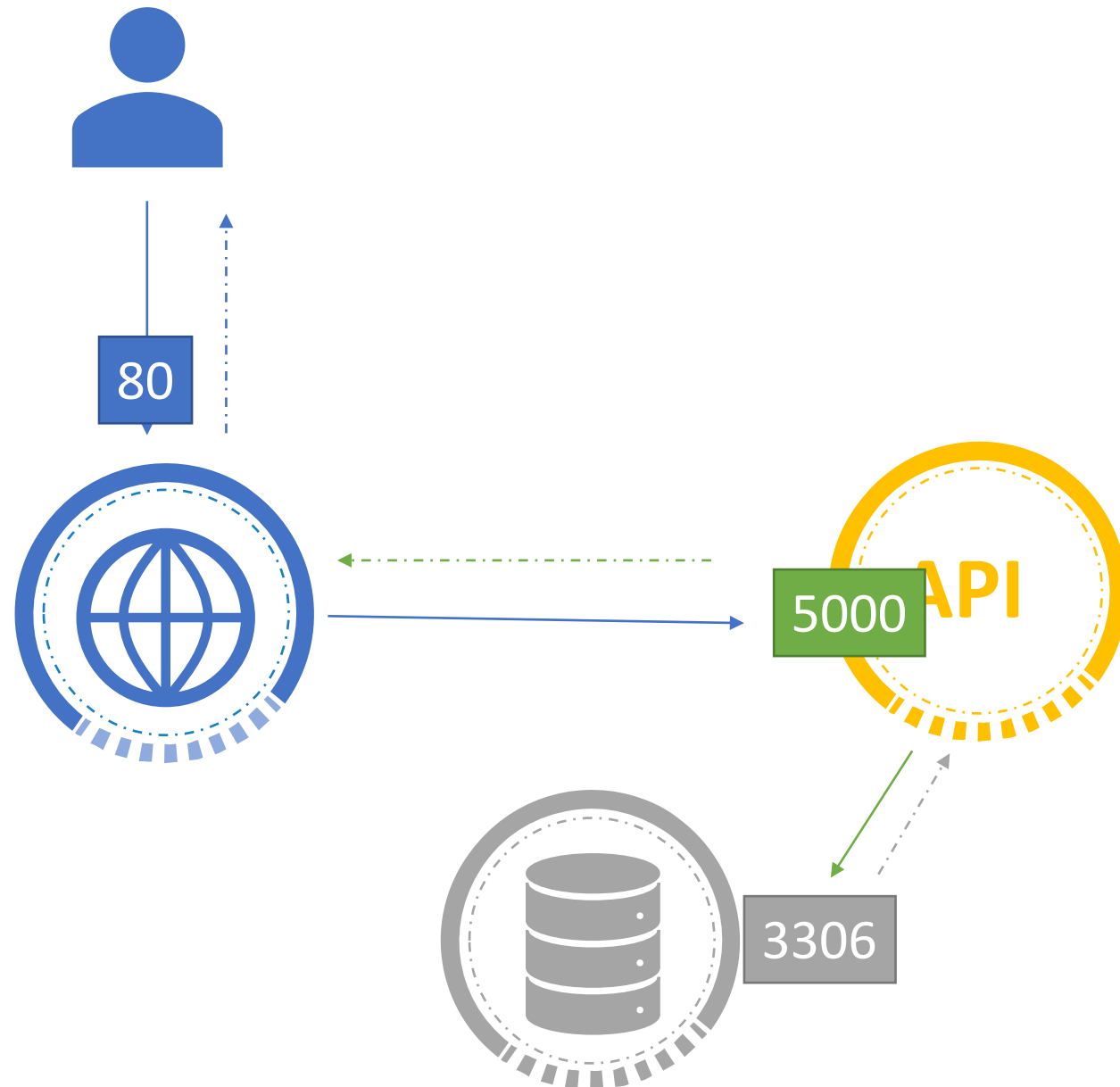




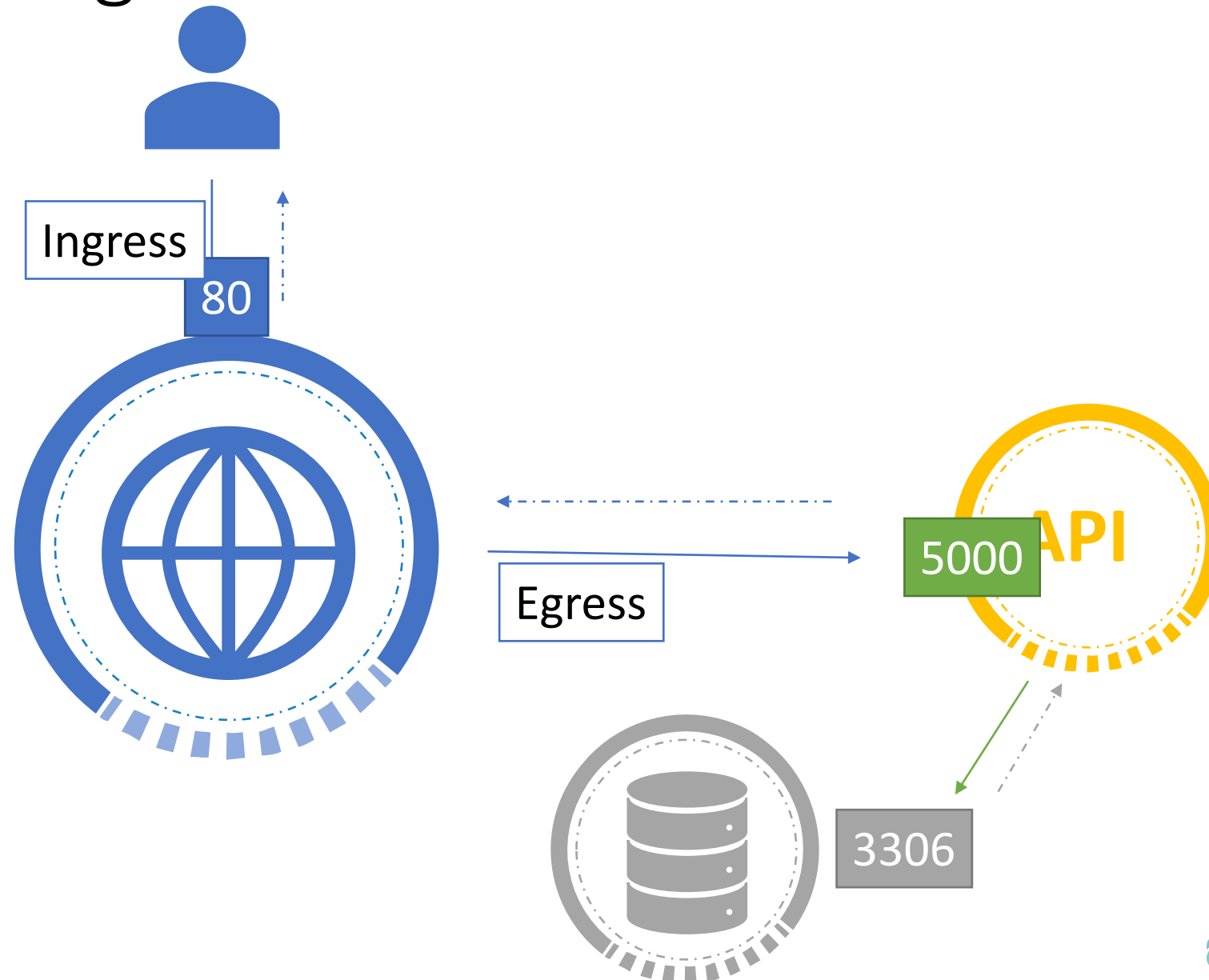


Network Policies

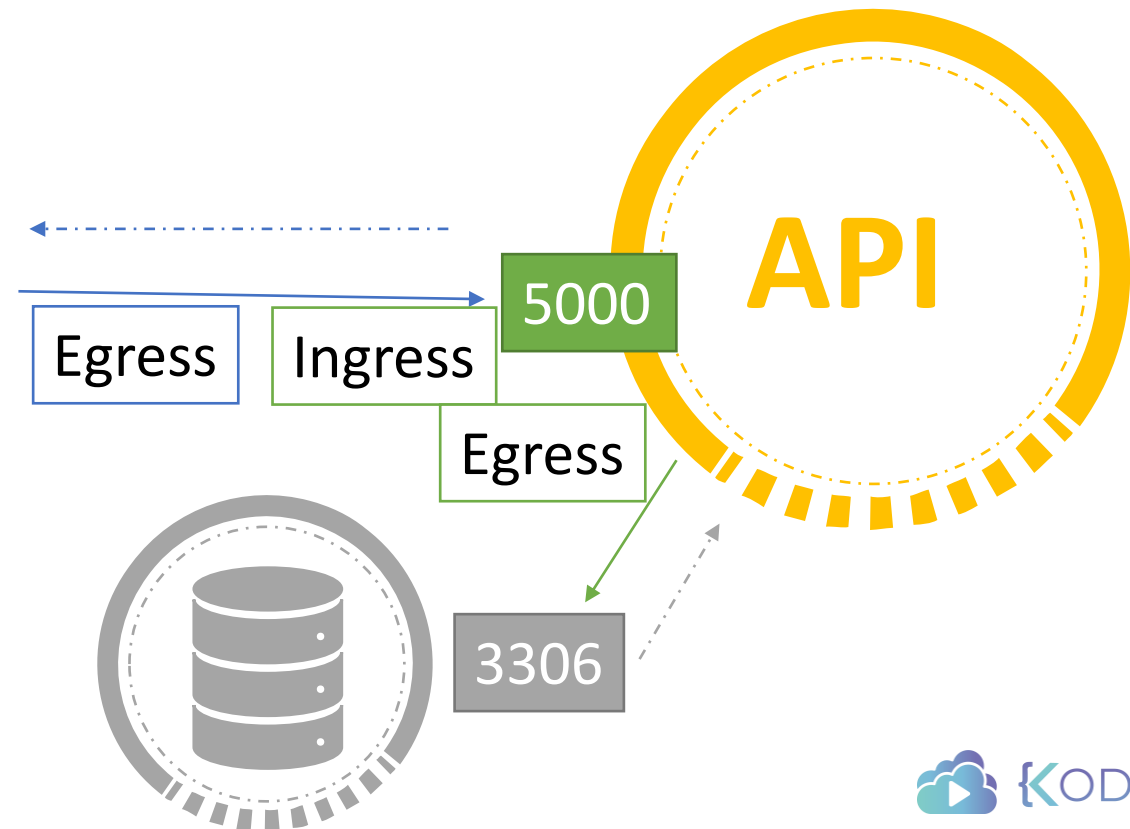
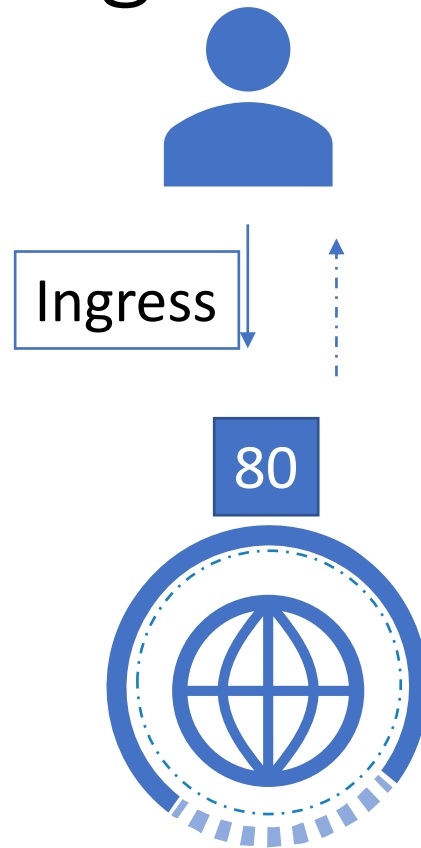
Traffic



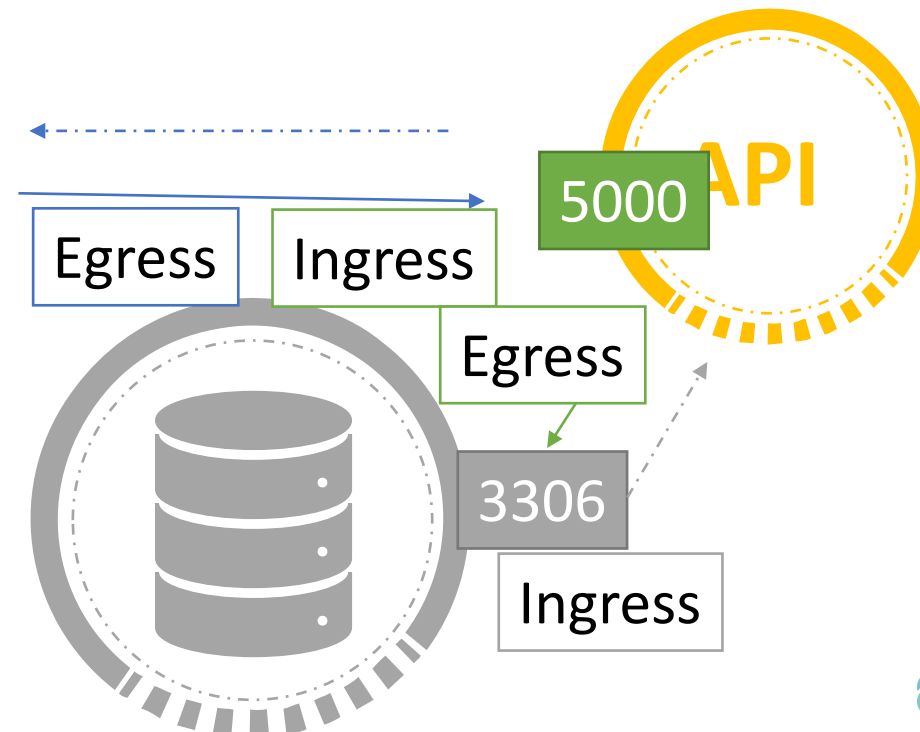
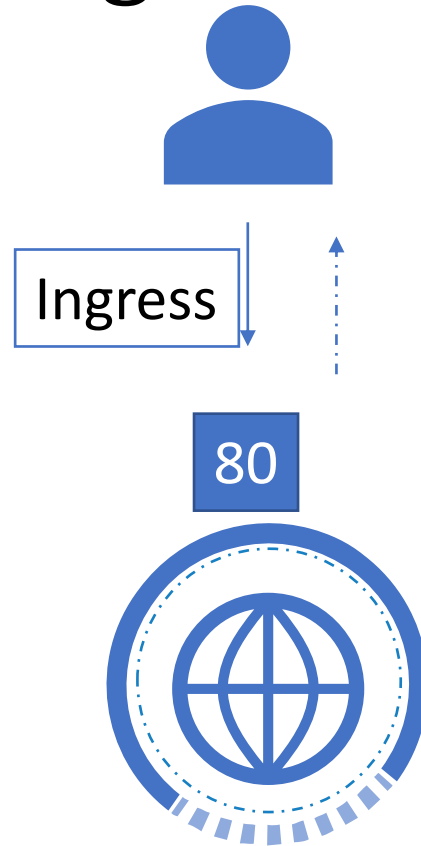
Ingress & Egress



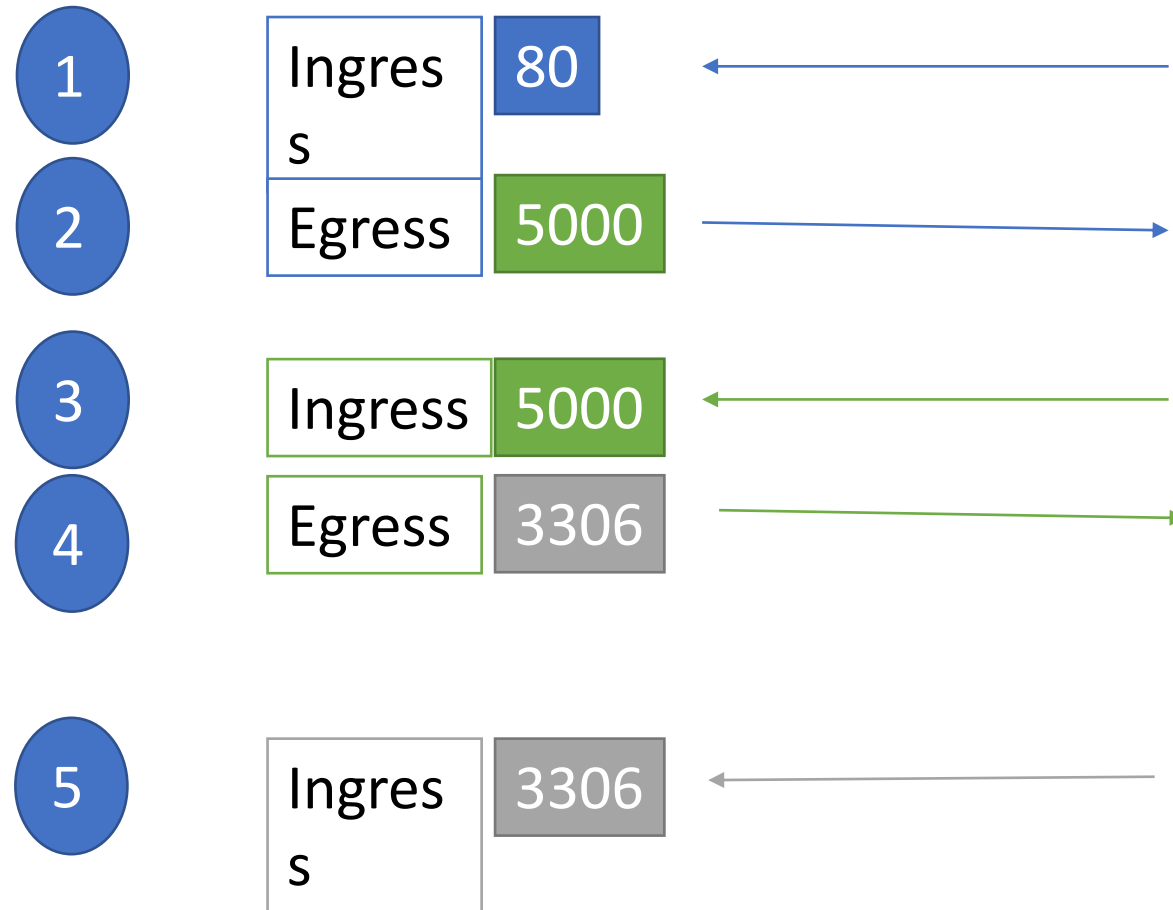
Ingress & Egress



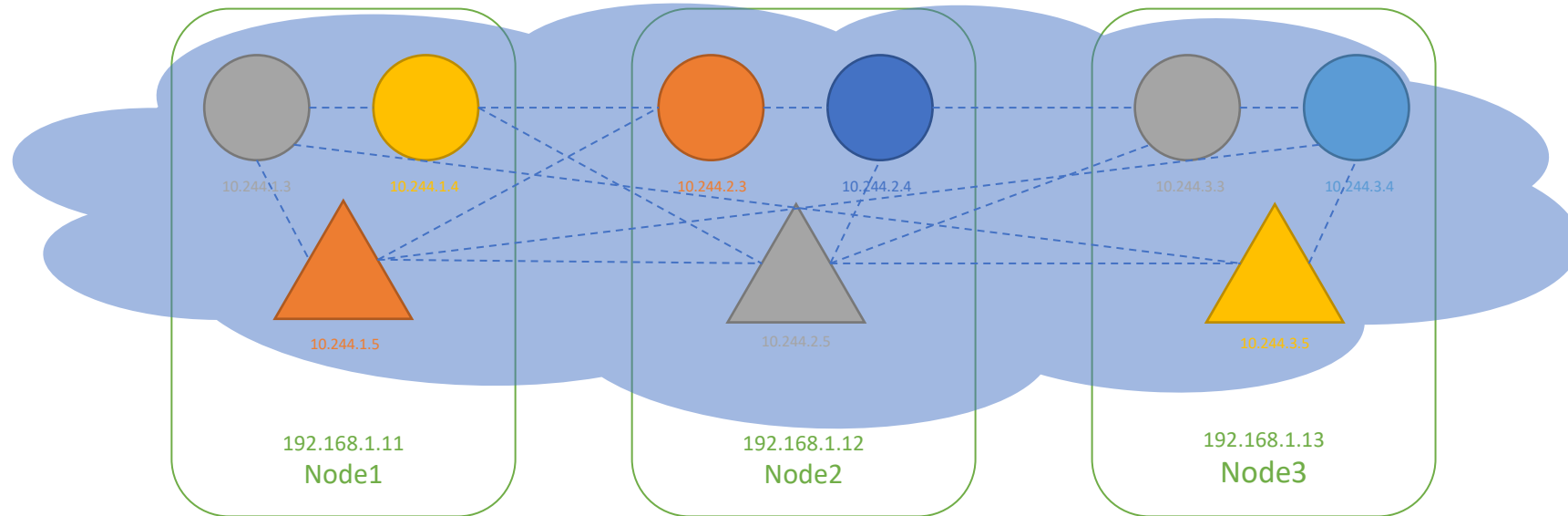
Ingress & Egress



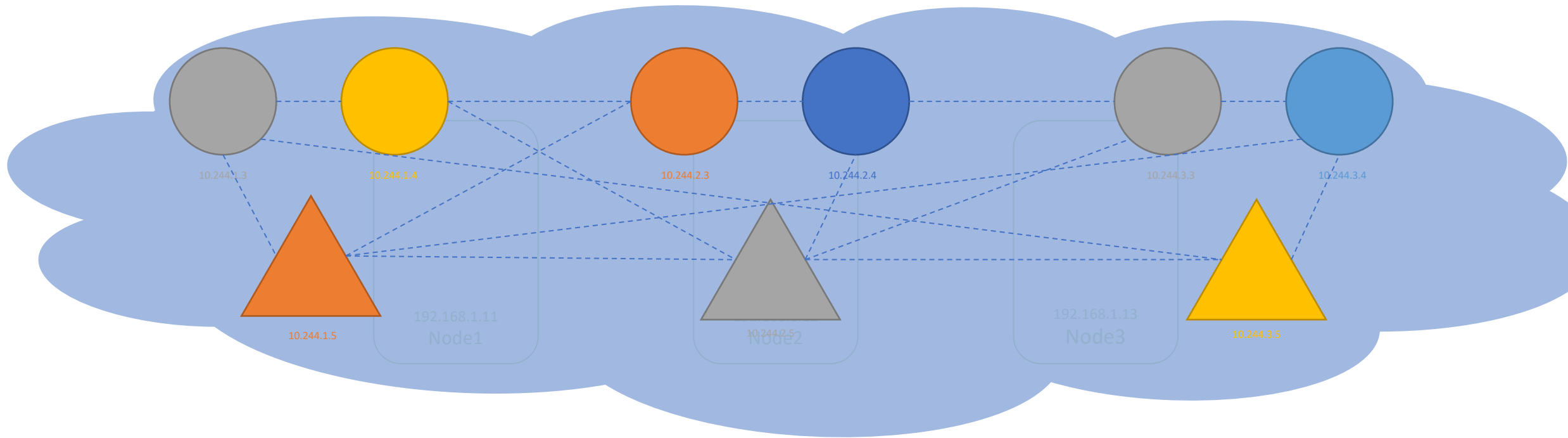
Traffic



Network Security

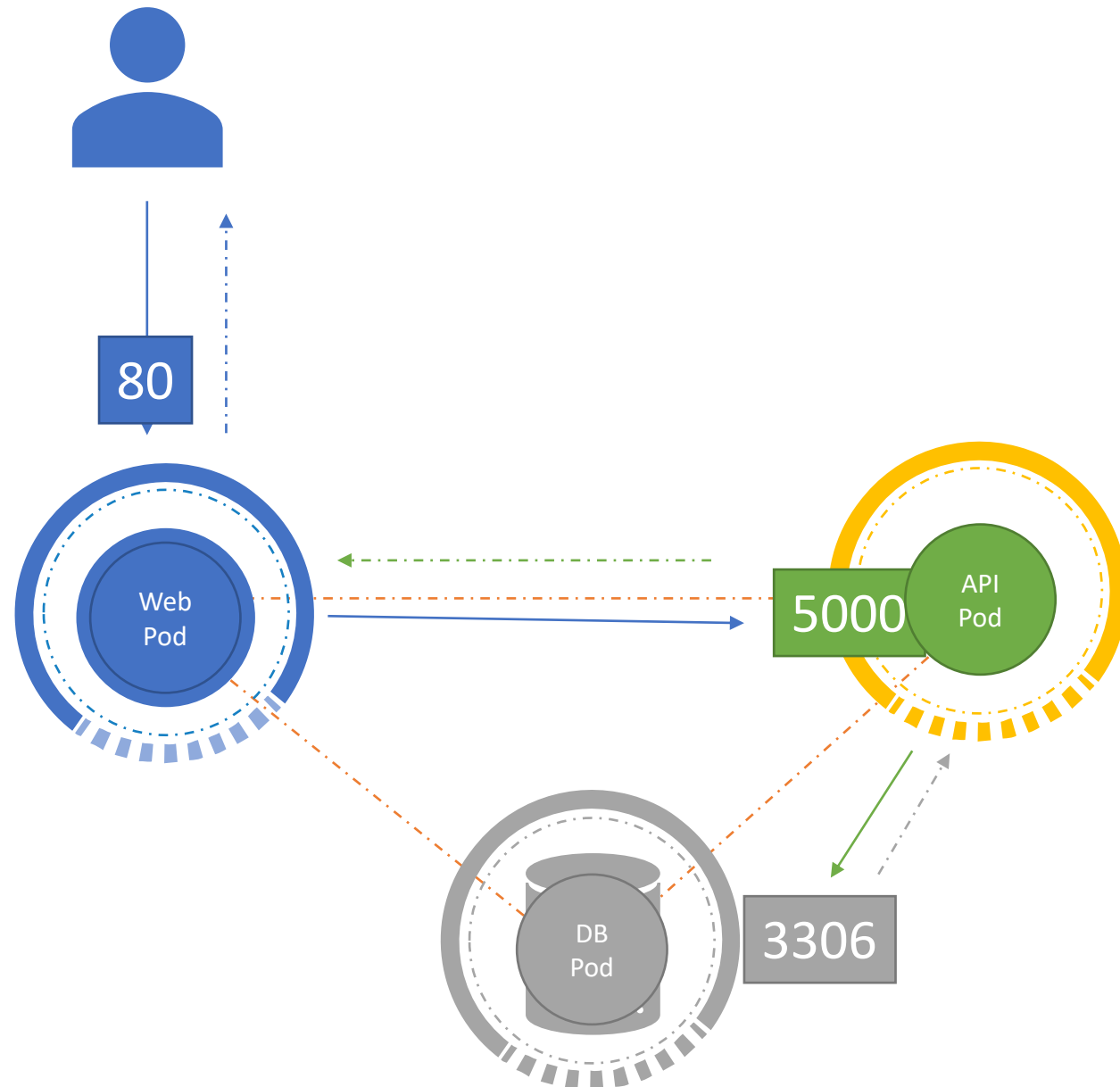


Network Security



“All Allow”

Traffic



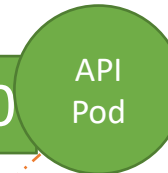
Network Policy



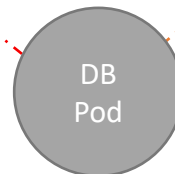
80



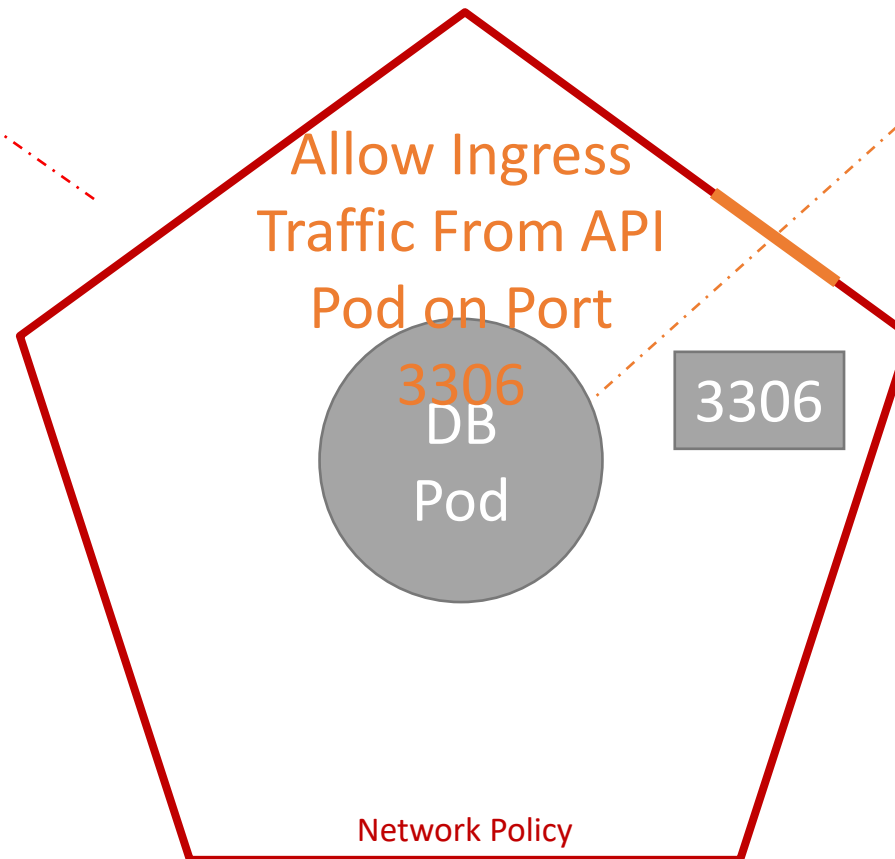
5000



3306

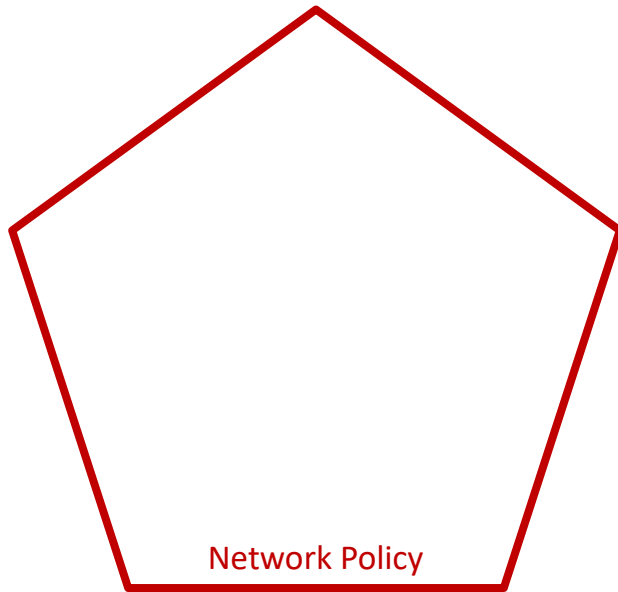


Network Policy

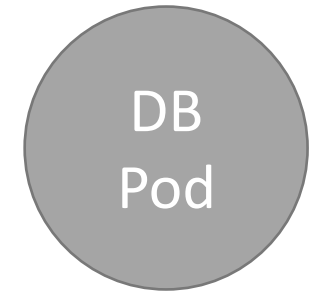


Network Policy - Selectors

Allow Ingress
Traffic From API
Pod on Port
3306



```
podSelector:  
  matchLabels:  
    role: db
```



```
labels:  
  role: db
```

Network Policy - Rules

```
policyTypes:
```

```
- Ingress
```

```
ingress:
```

```
- from:
```

```
- podSelector:
```

```
  matchLabels:
```

```
    name: api-pod
```

```
ports:
```

```
- protocol: TCP
```

```
  port: 3306
```

Allow

Ingress

Traffic

From

API Pod

on

Port 3306

Network Policy

```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
```

```
▶ kubectl create -f policy-definition.yaml
```

```
  matchLabels:
    role: db
```

```
  policyTypes:
  - Ingress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          name: api-pod
    ports:
    - protocol: TCP
      port: 3306
```

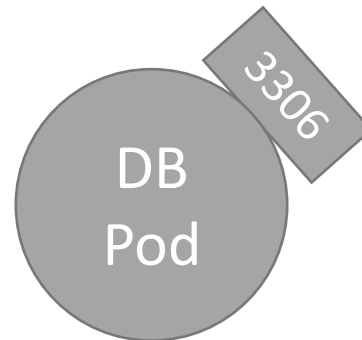
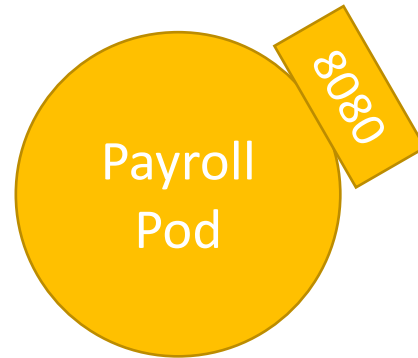
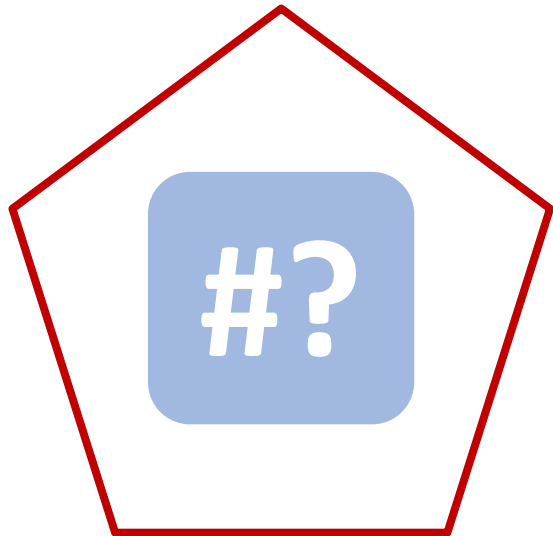
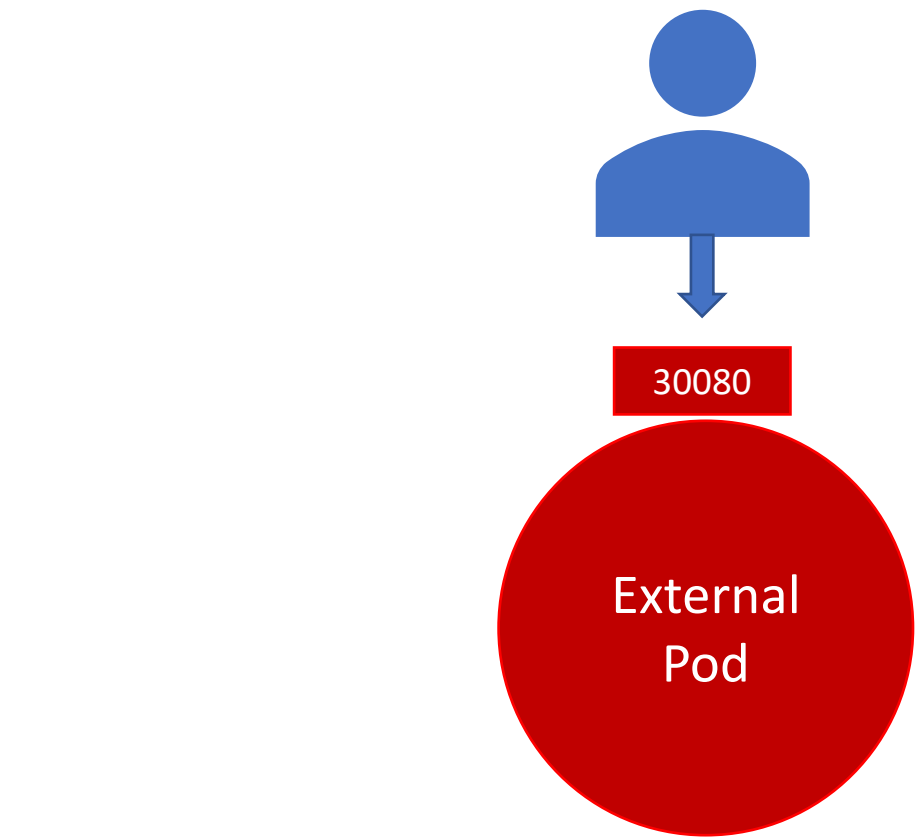
| Note

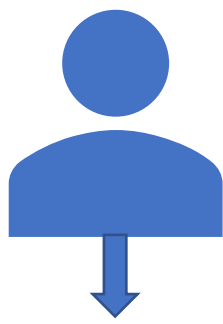
Solutions that Support Network Policies:

- Kube-router
- Calico
- Romana
- Weave-net

Solutions that DO NOT Support Network Policies:

- Flannel

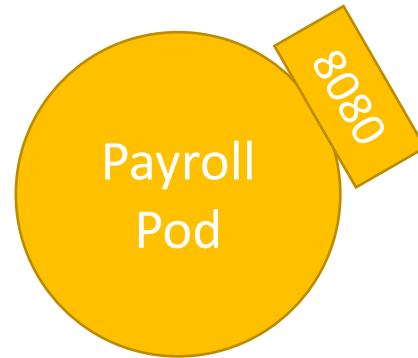
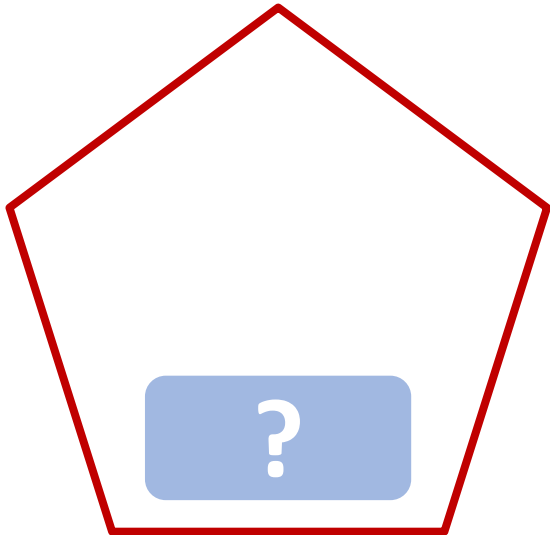




30080

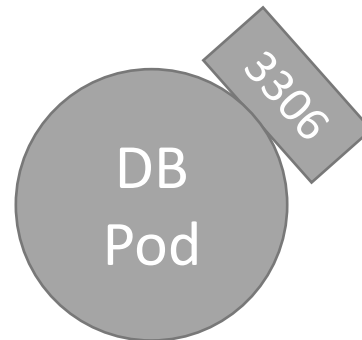


External
Pod



Payroll
Pod

8080



DB
Pod

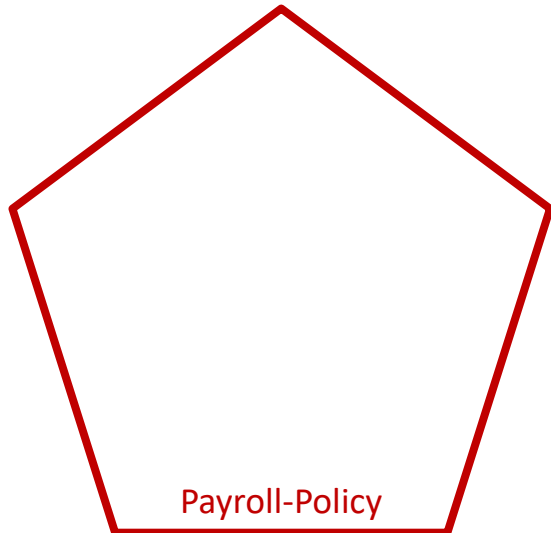
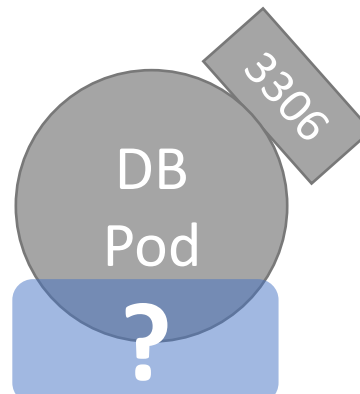
3306

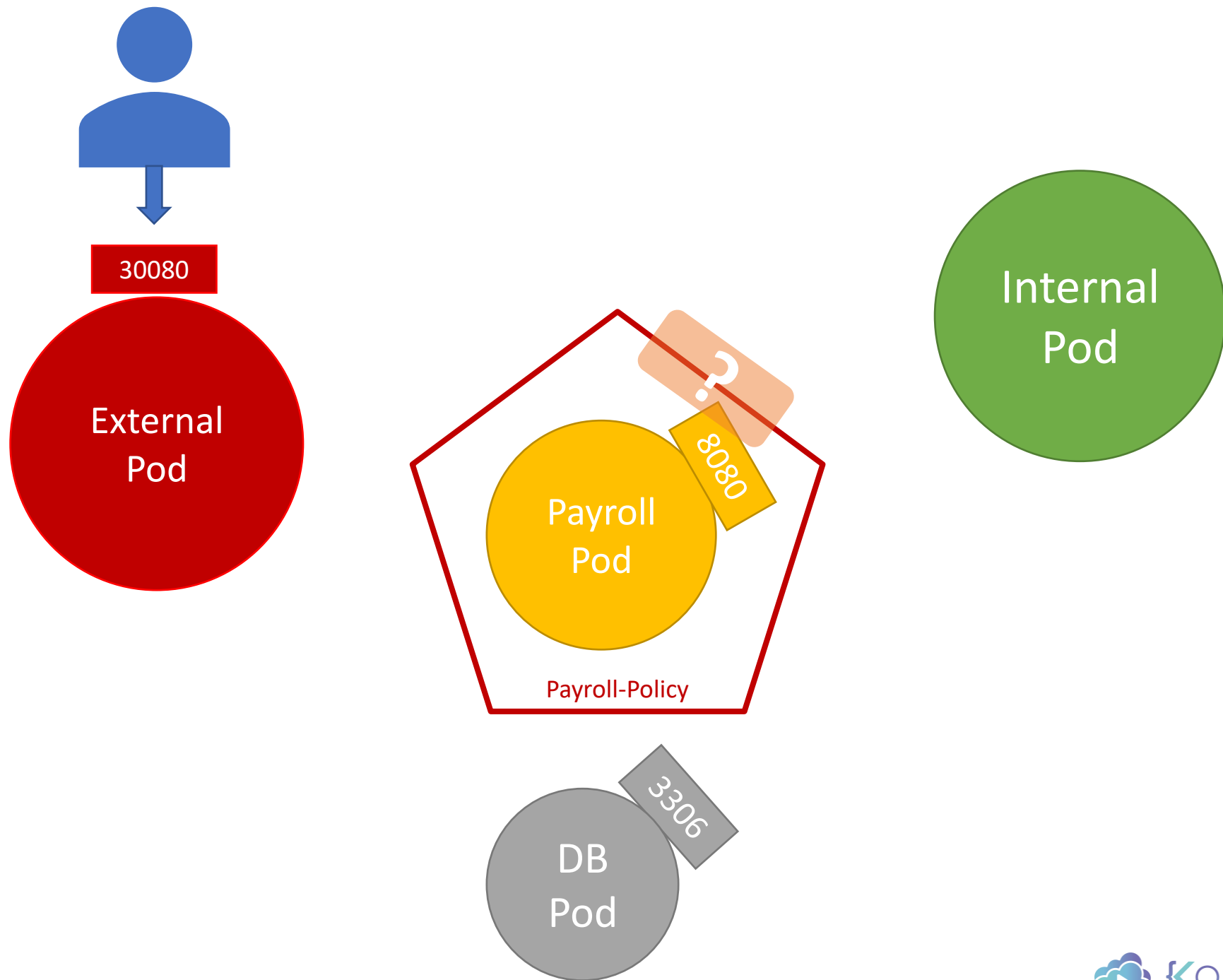


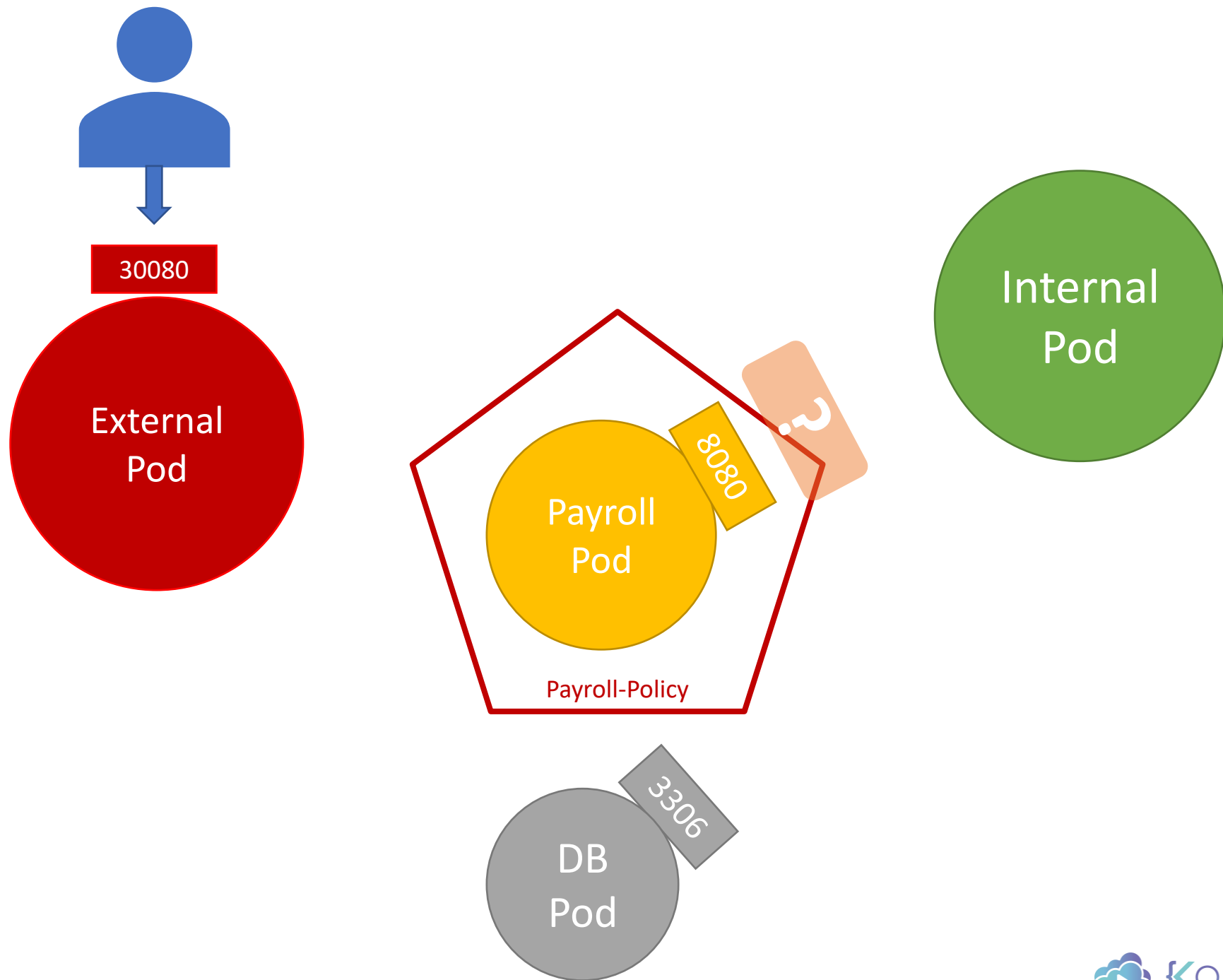
Internal
Pod

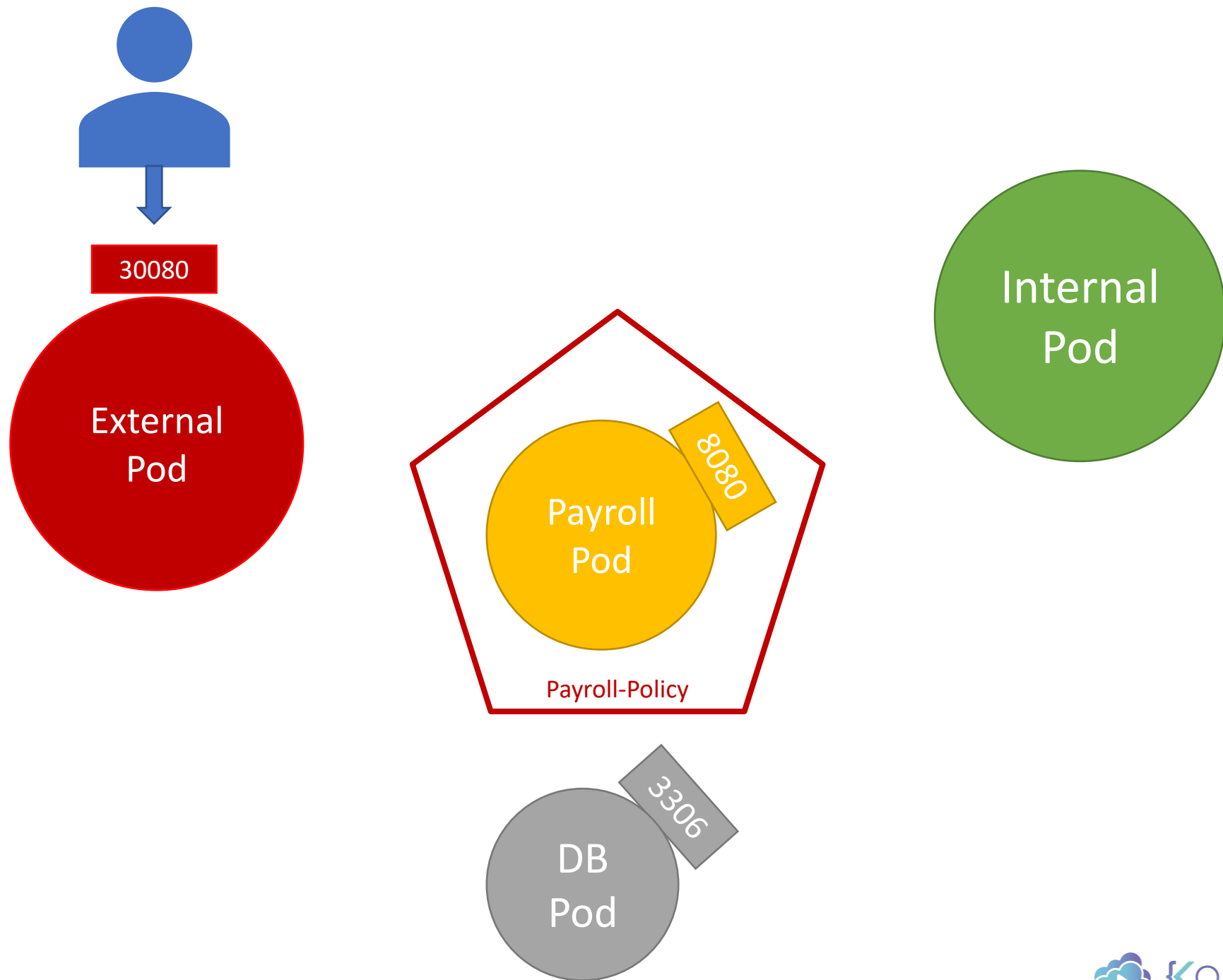


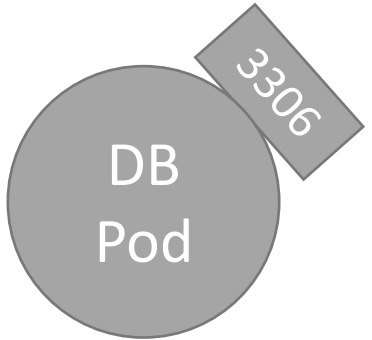
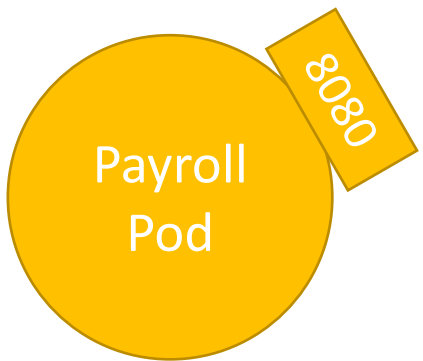
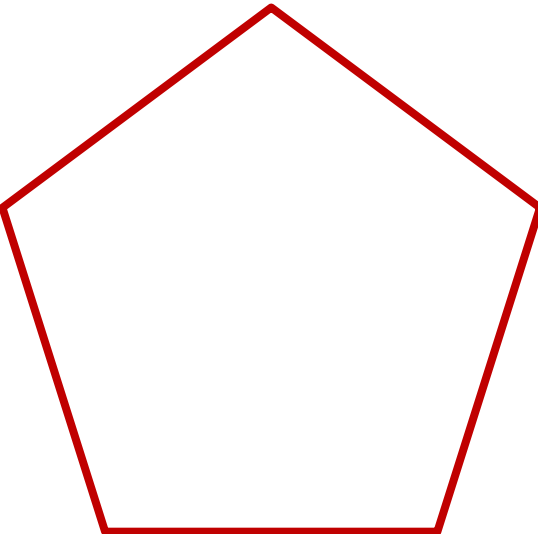
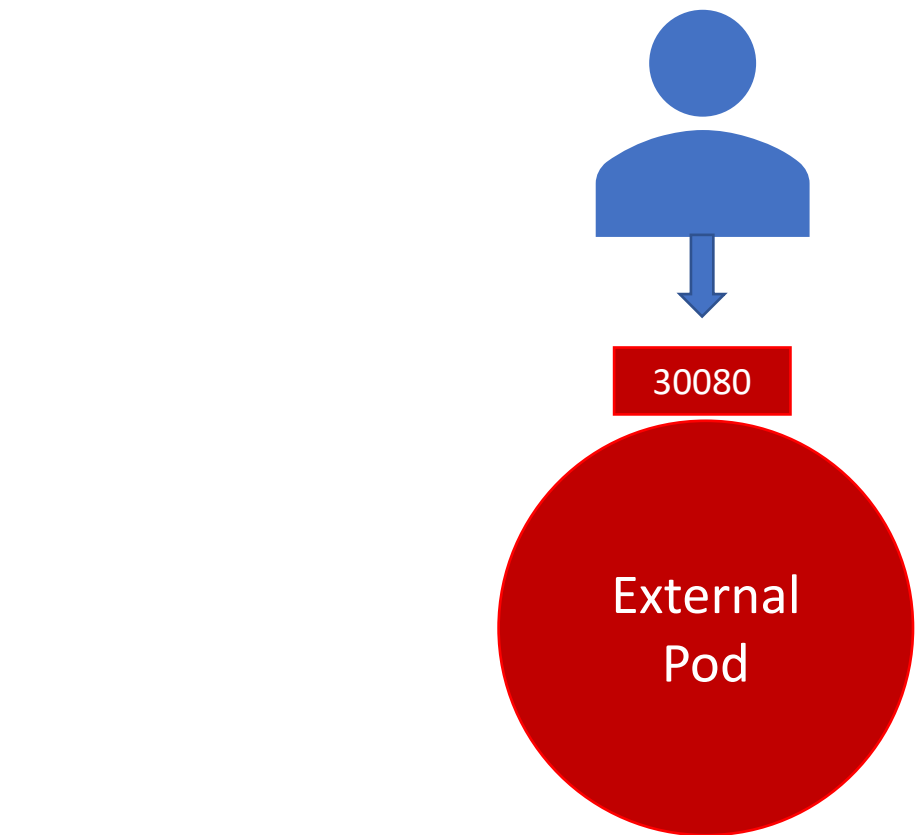
30080

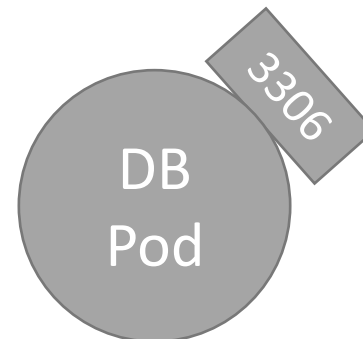
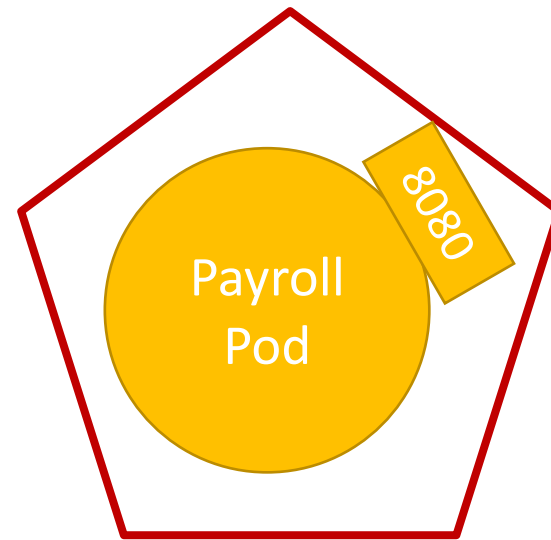
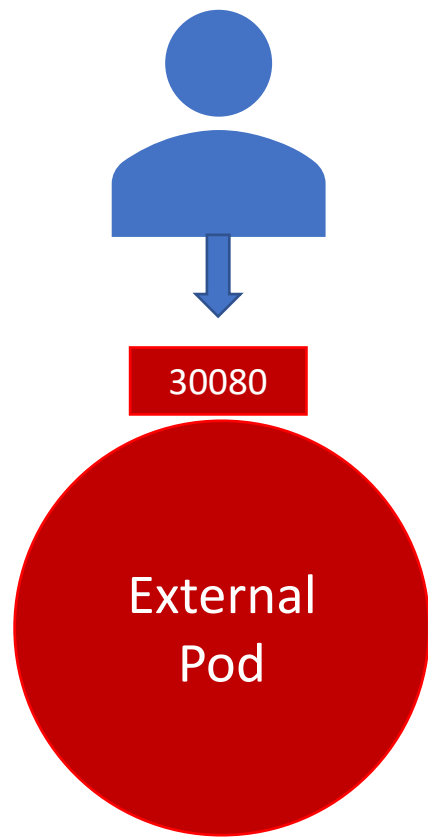


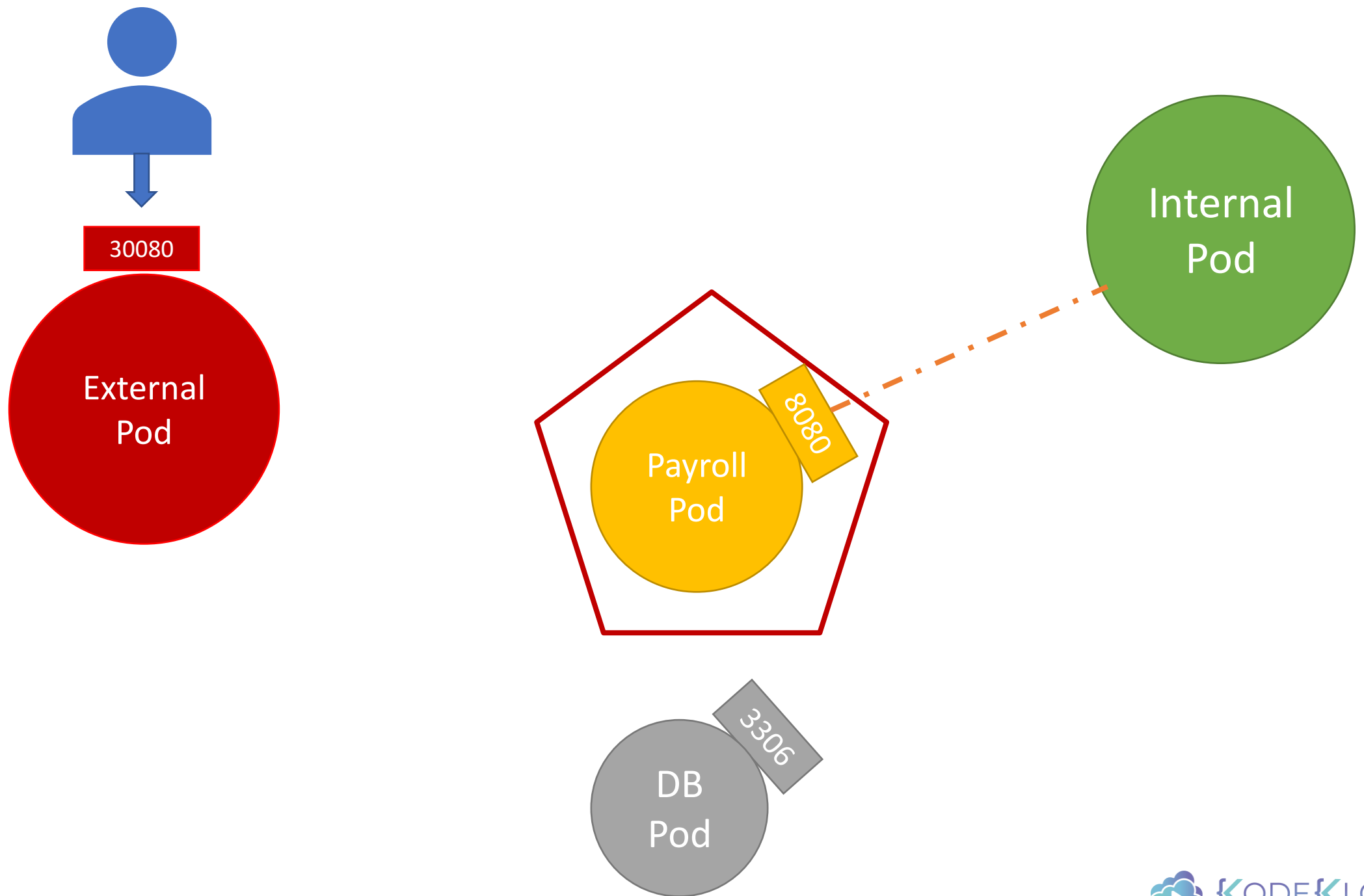


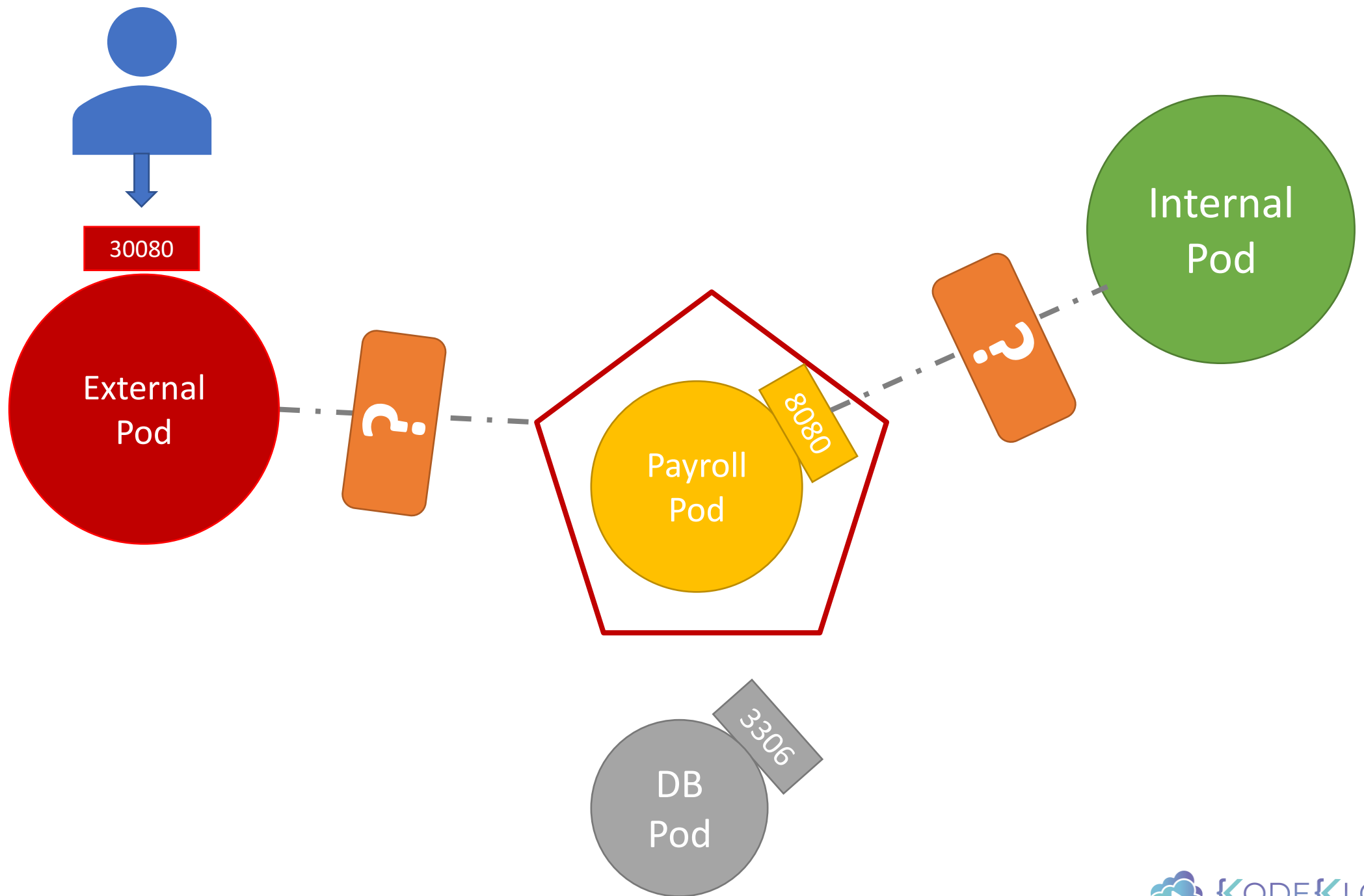


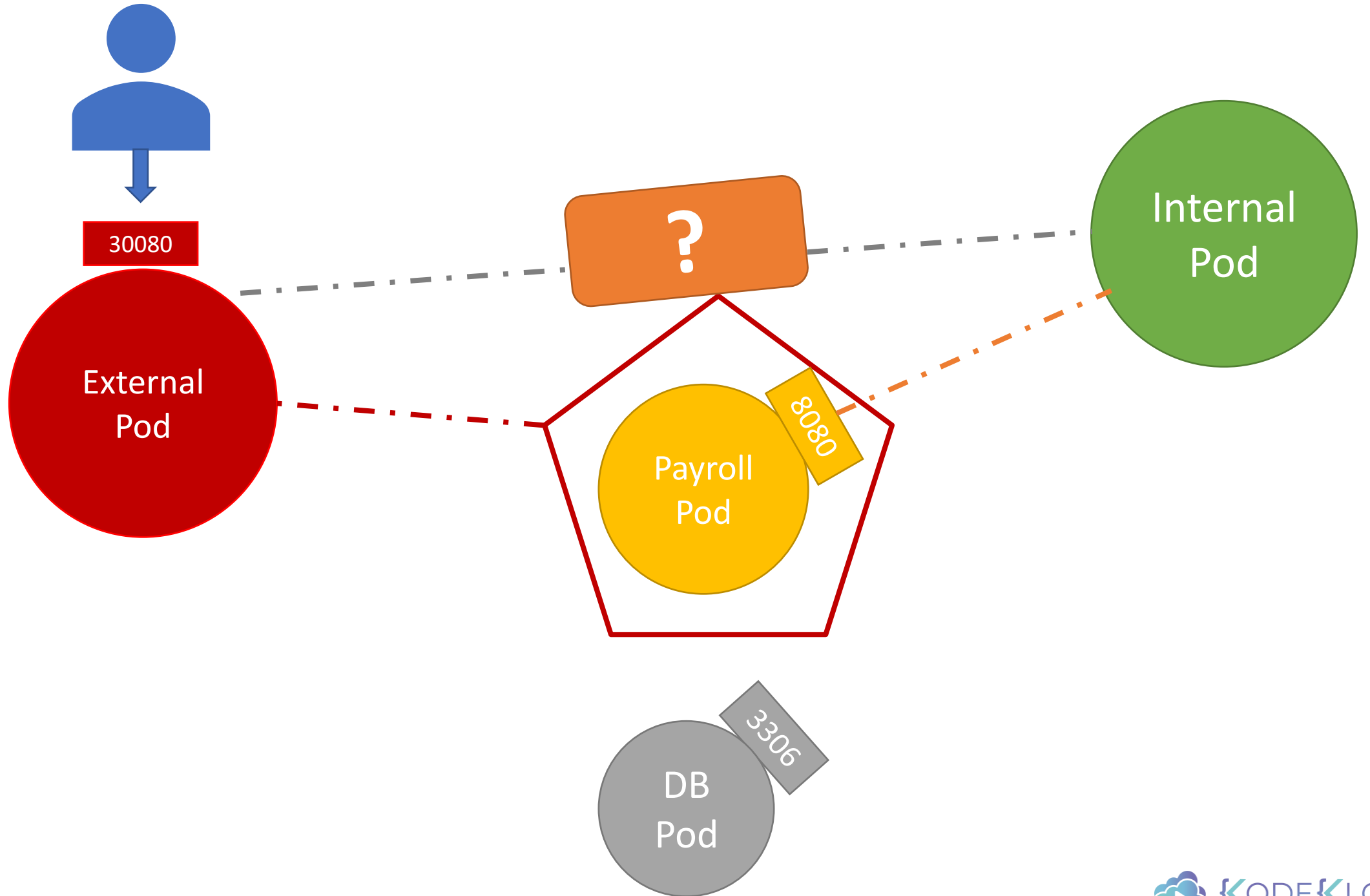


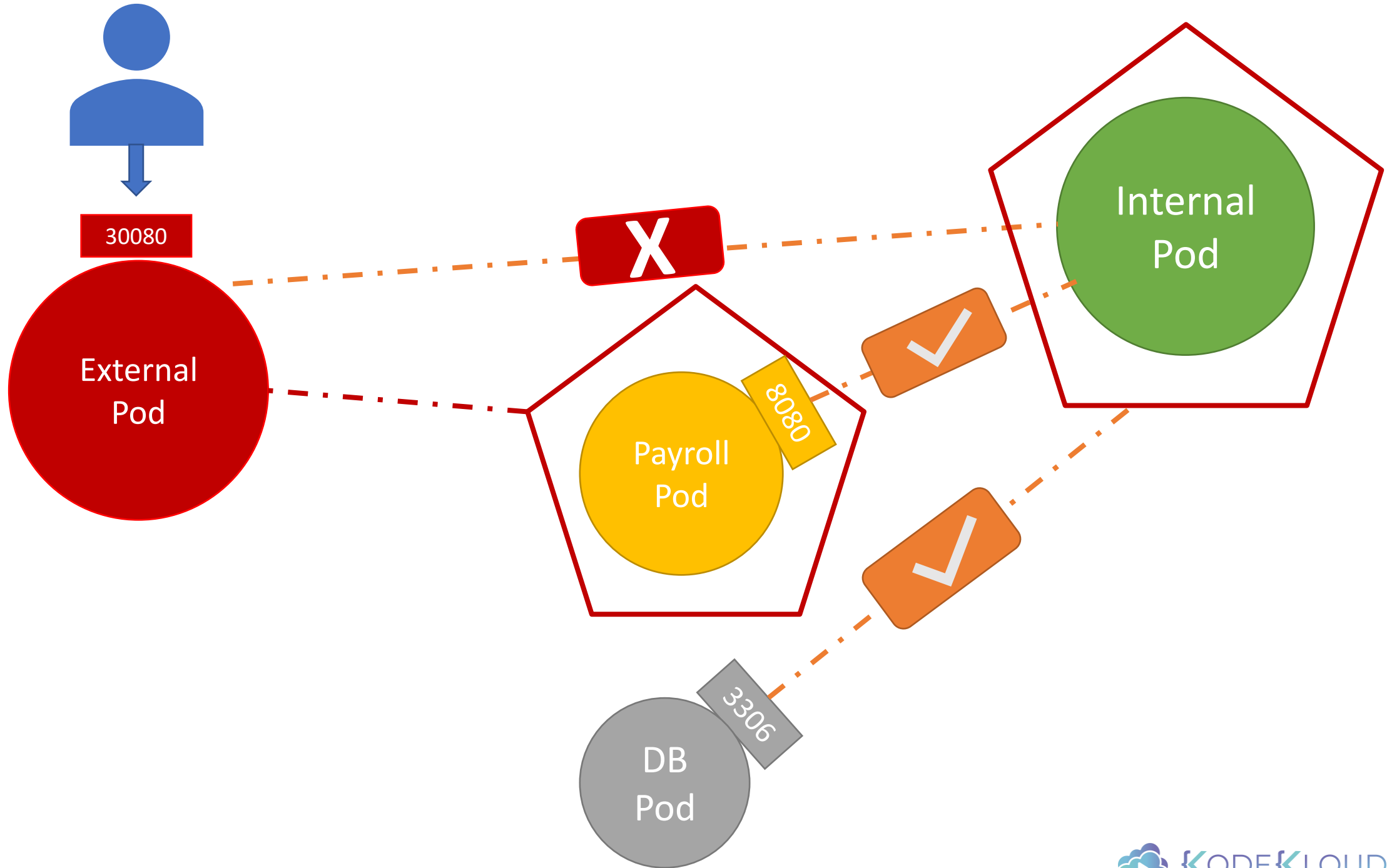


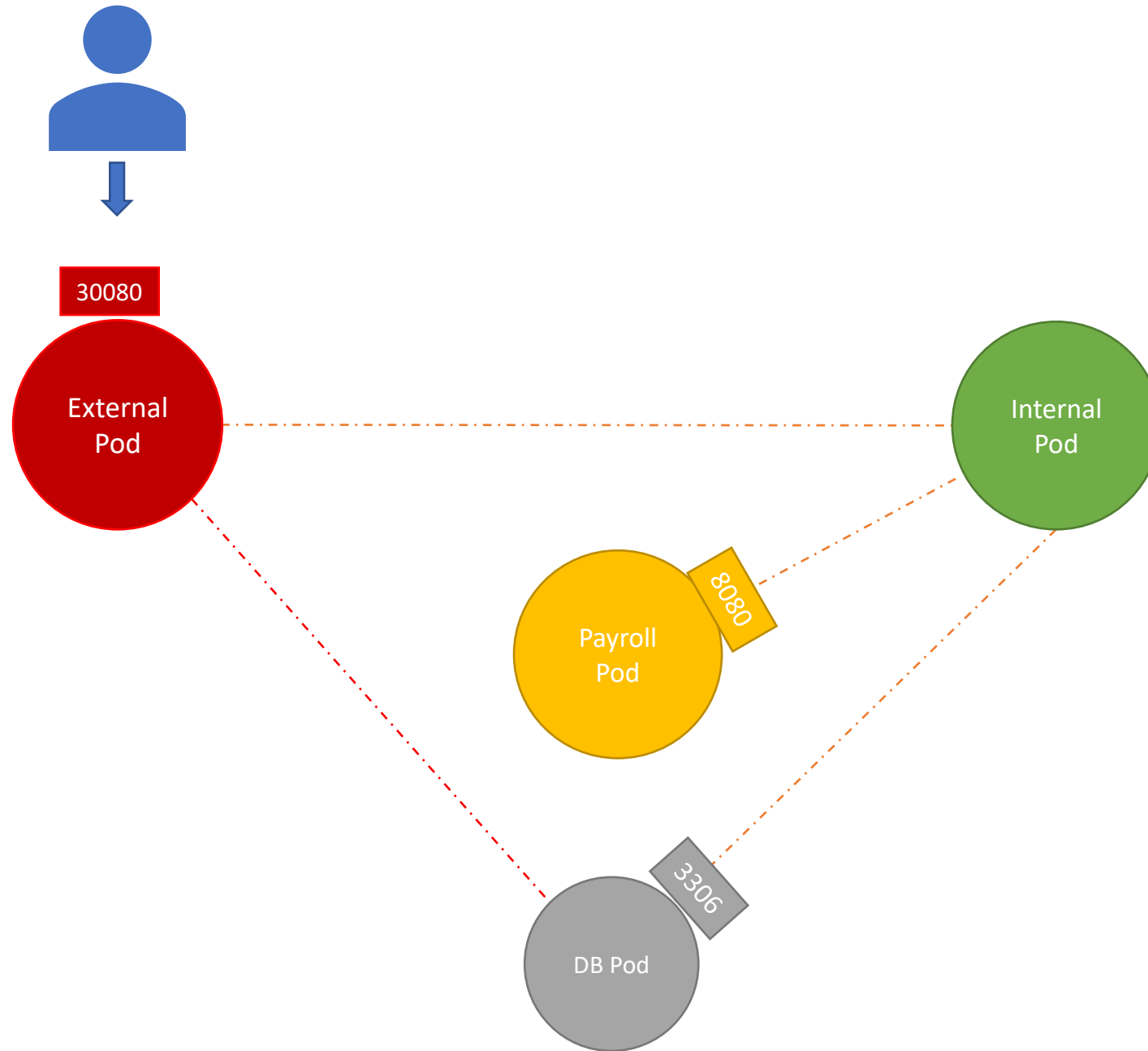








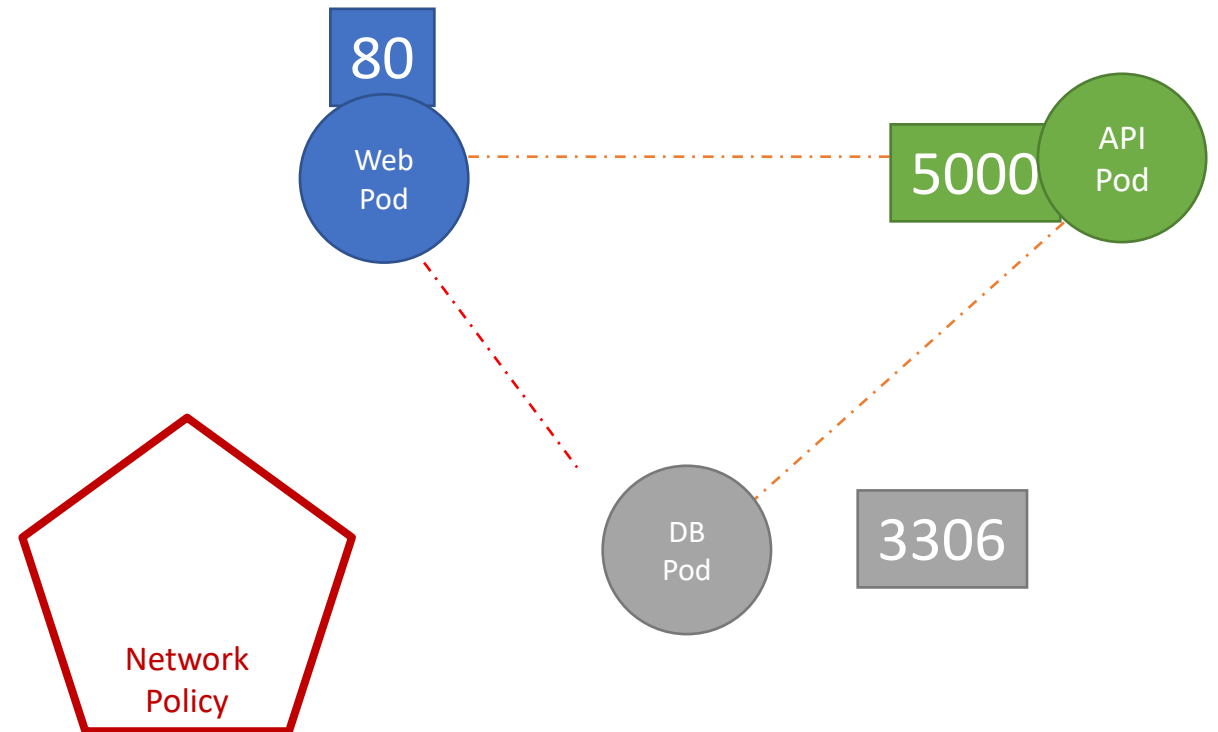




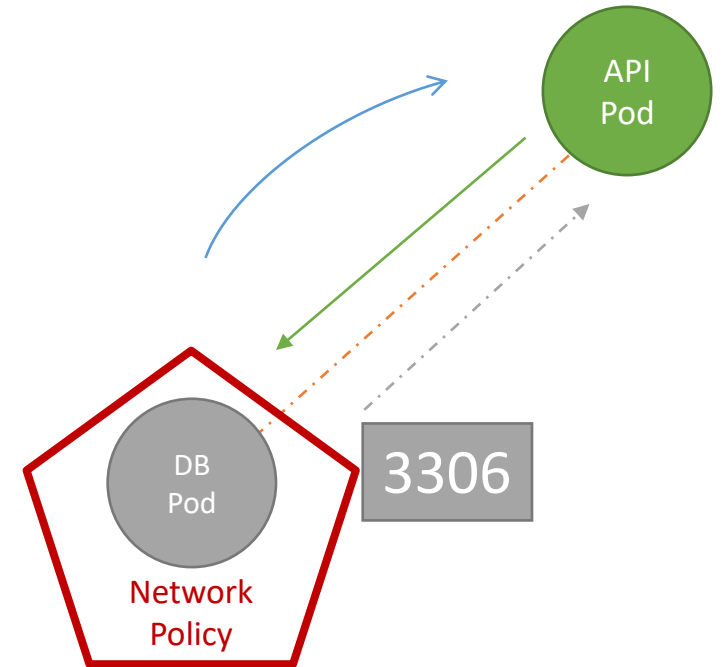


Network Policies

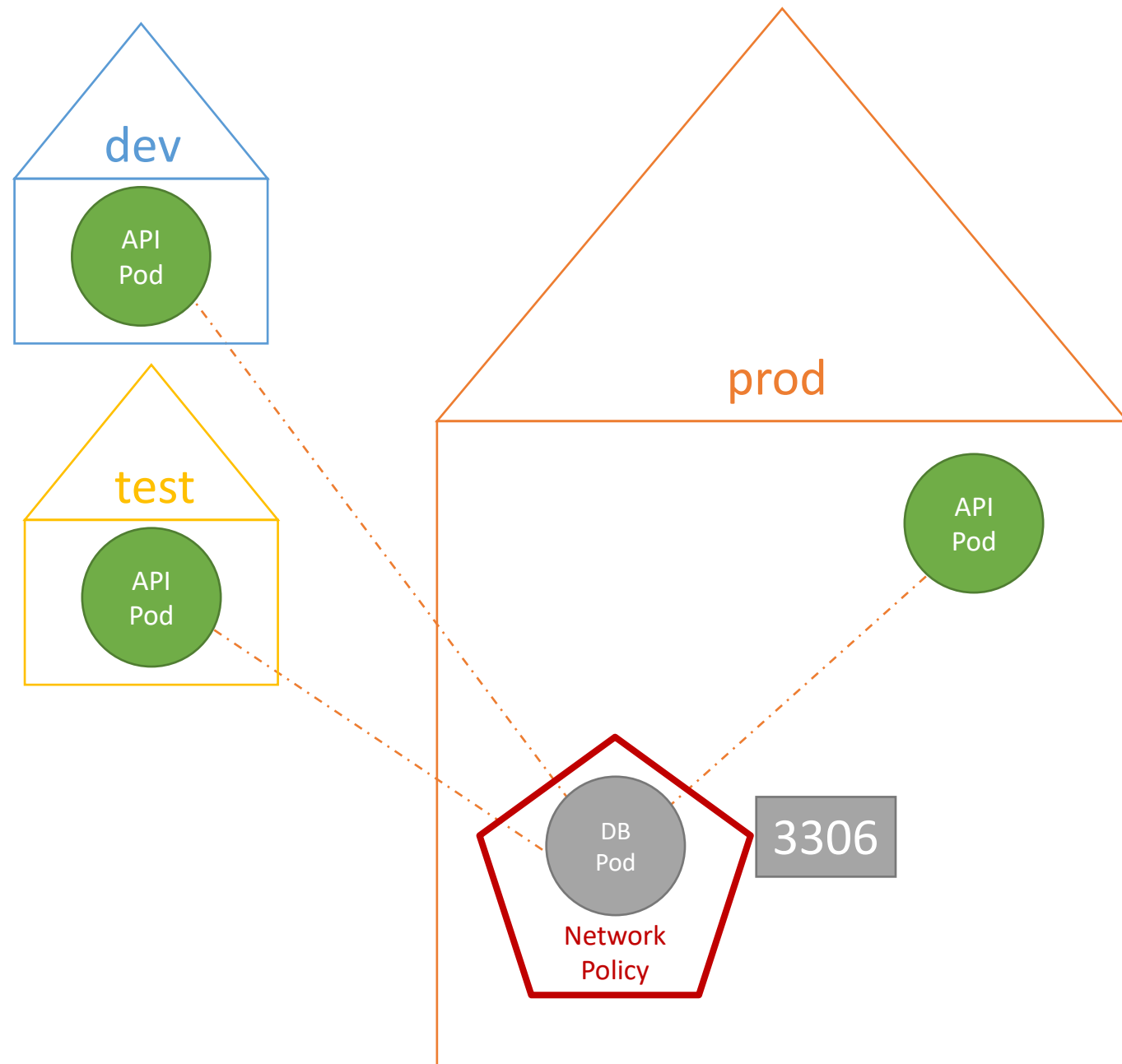
```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
  podSelector:
    matchLabels:
      role: db
```



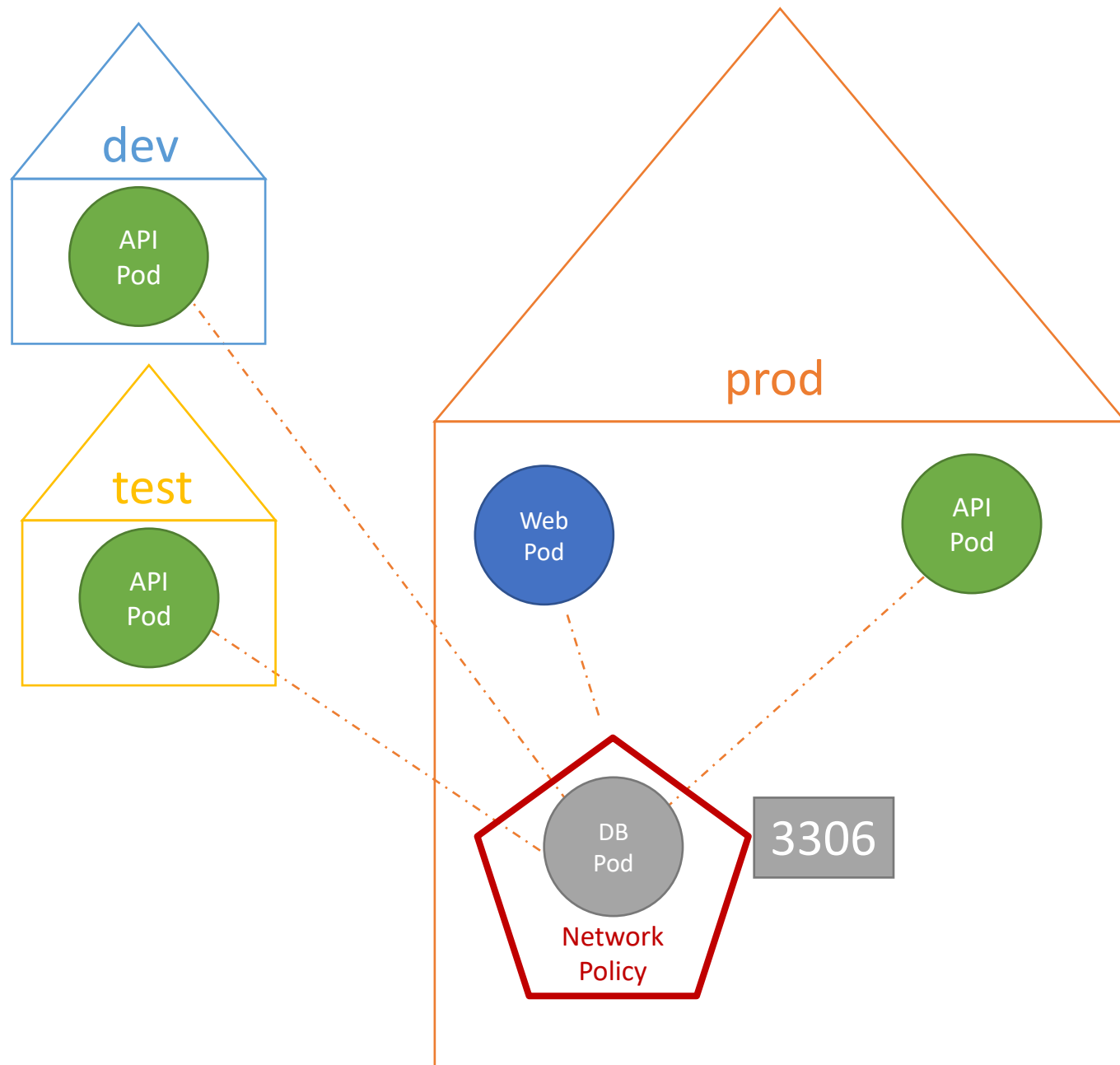

```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
  podSelector:
    matchLabels:
      role: db
  policyTypes:
    - Ingress
```



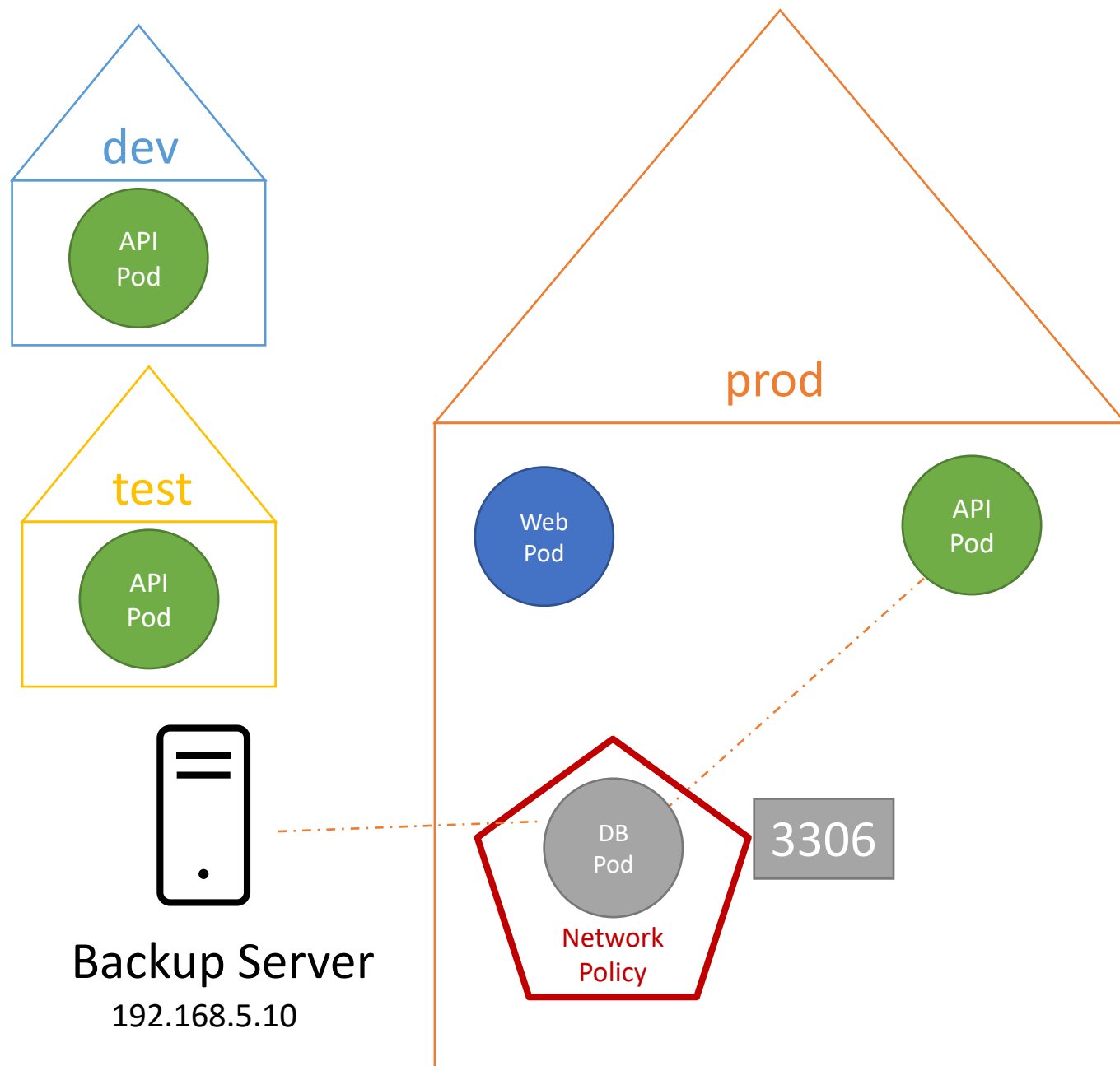
```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
  podSelector:
    matchLabels:
      role: db
  policyTypes:
  - Ingress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          name: api-pod
  ports:
  - protocol: TCP
    port: 3306
```



```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
  podSelector:
    matchLabels:
      role: db
  policyTypes:
  - Ingress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          name: api-pod
      namespaceSelector:
        matchLabels:
          name: prod
    ports:
    - protocol: TCP
      port: 3306
```



```
apiVersion: networking.k8s.io/v1
kind: NetworkPolicy
metadata:
  name: db-policy
spec:
  podSelector:
    matchLabels:
      role: db
  policyTypes:
  - Ingress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          name: api-pod
      namespaceSelector:
        matchLabels:
          name: prod
    ports:
    - protocol: TCP
      port: 3306
```



spec:

```
podSelector:  
  matchLabels:  
    role: db
```

```
policyTypes:  
- Ingress
```

```
ingress:
```

```
- from:
```

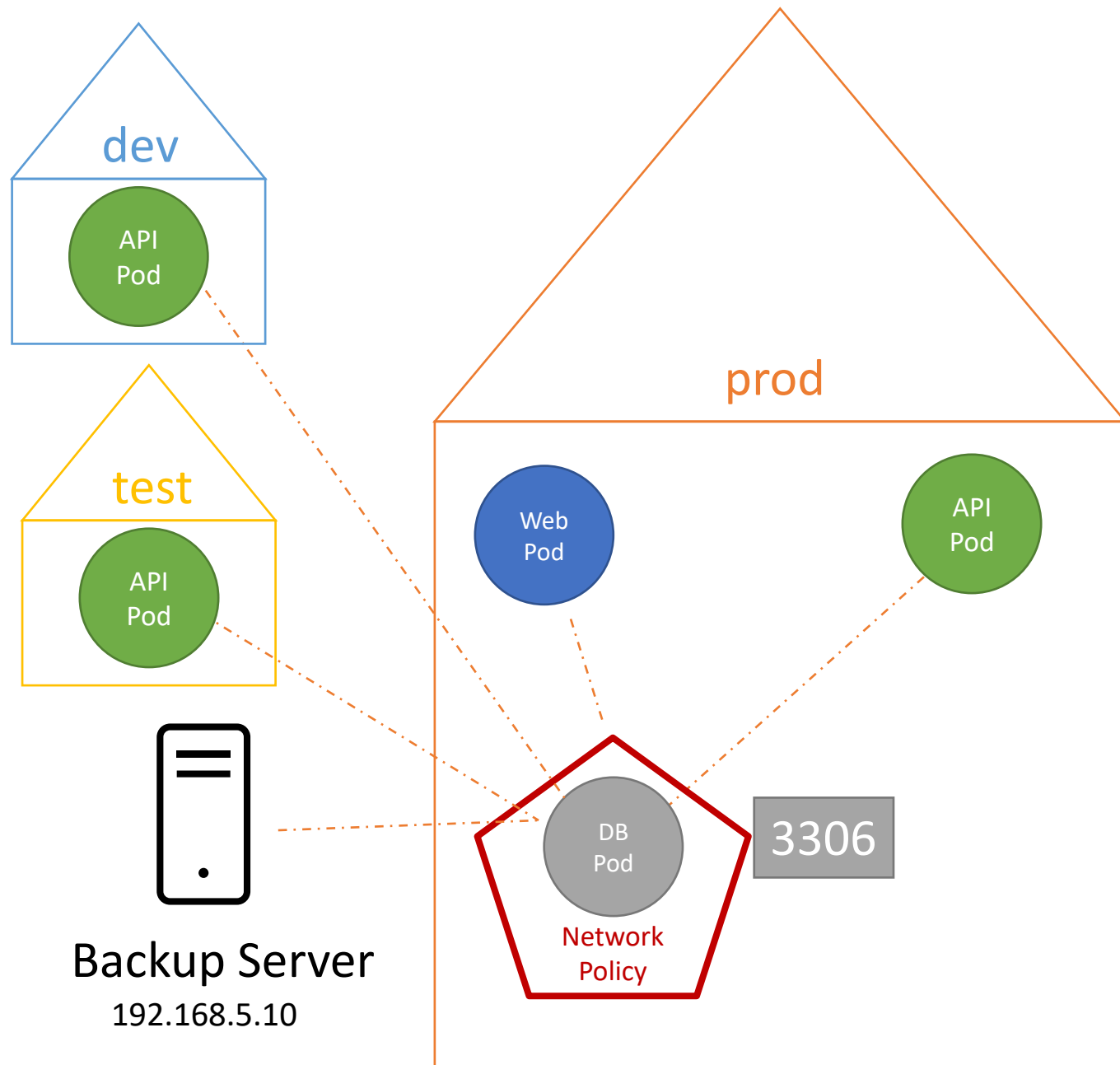
```
- podSelector:  
  matchLabels:  
    name: api-pod
```

```
- namespaceSelector:  
  matchLabels:  
    name: prod
```

```
- ipBlock:  
  cidr: 192.168.5.10/32
```

```
ports:
```

```
- protocol: TCP  
  port: 3306
```



```
spec:
  podSelector:
    matchLabels:
      role: db
  policyTypes:
  - Ingress
  - Egress
  ingress:
  - from:
    - podSelector:
        matchLabels:
          name: api-pod
      ports:
      - protocol: TCP
        port: 3306
  egress:
  - to:
    - ipBlock:
        cidr: 192.168.5.10/32
      ports:
      - protocol: TCP
        port: 80
```

