

Kubernetes Networking with Services



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Overview



Theory

Create a Service Imperatively

Create a Service Declaratively

Create an Internet LoadBalancer Service

Recap



Kubernetes Service Theory

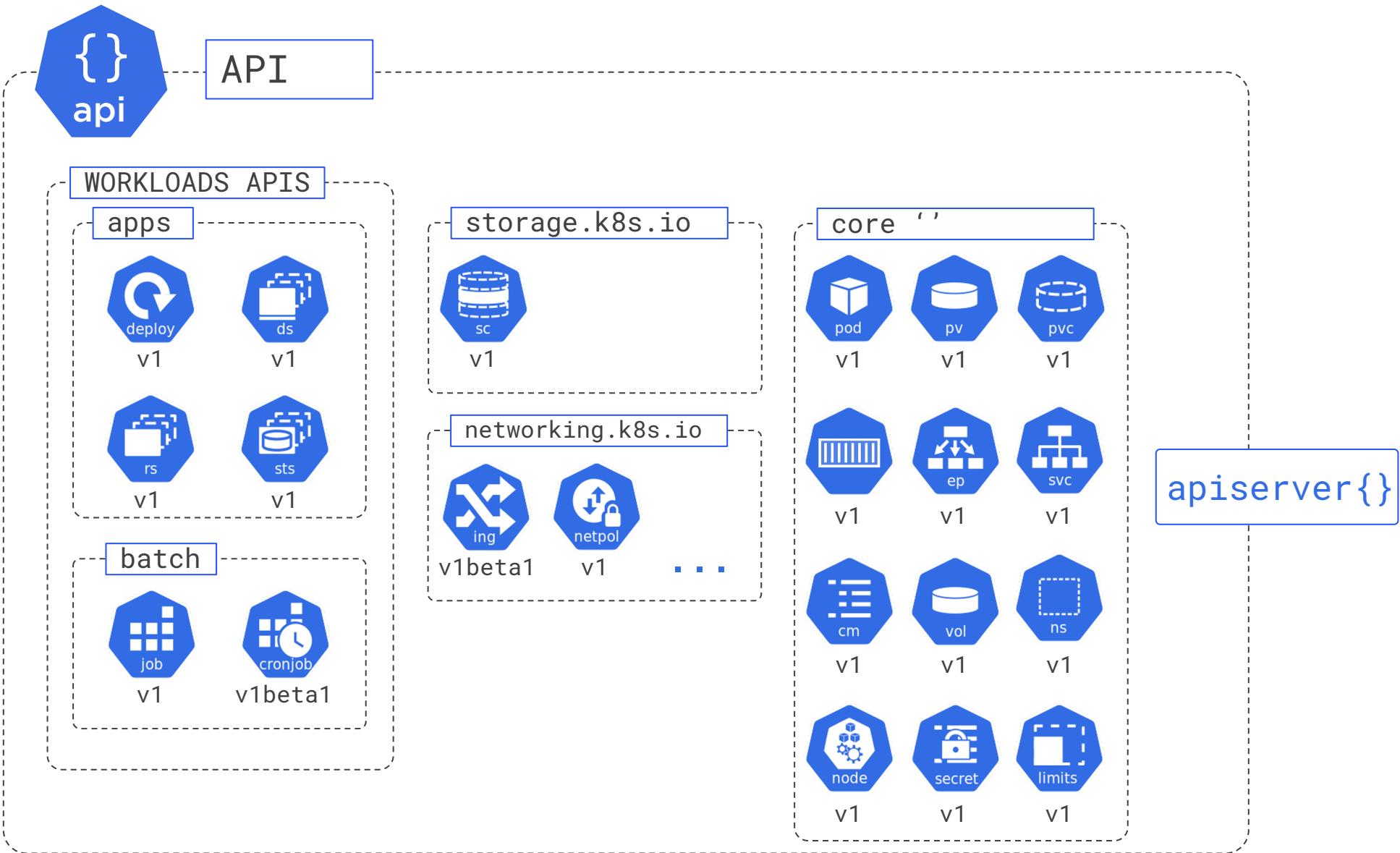


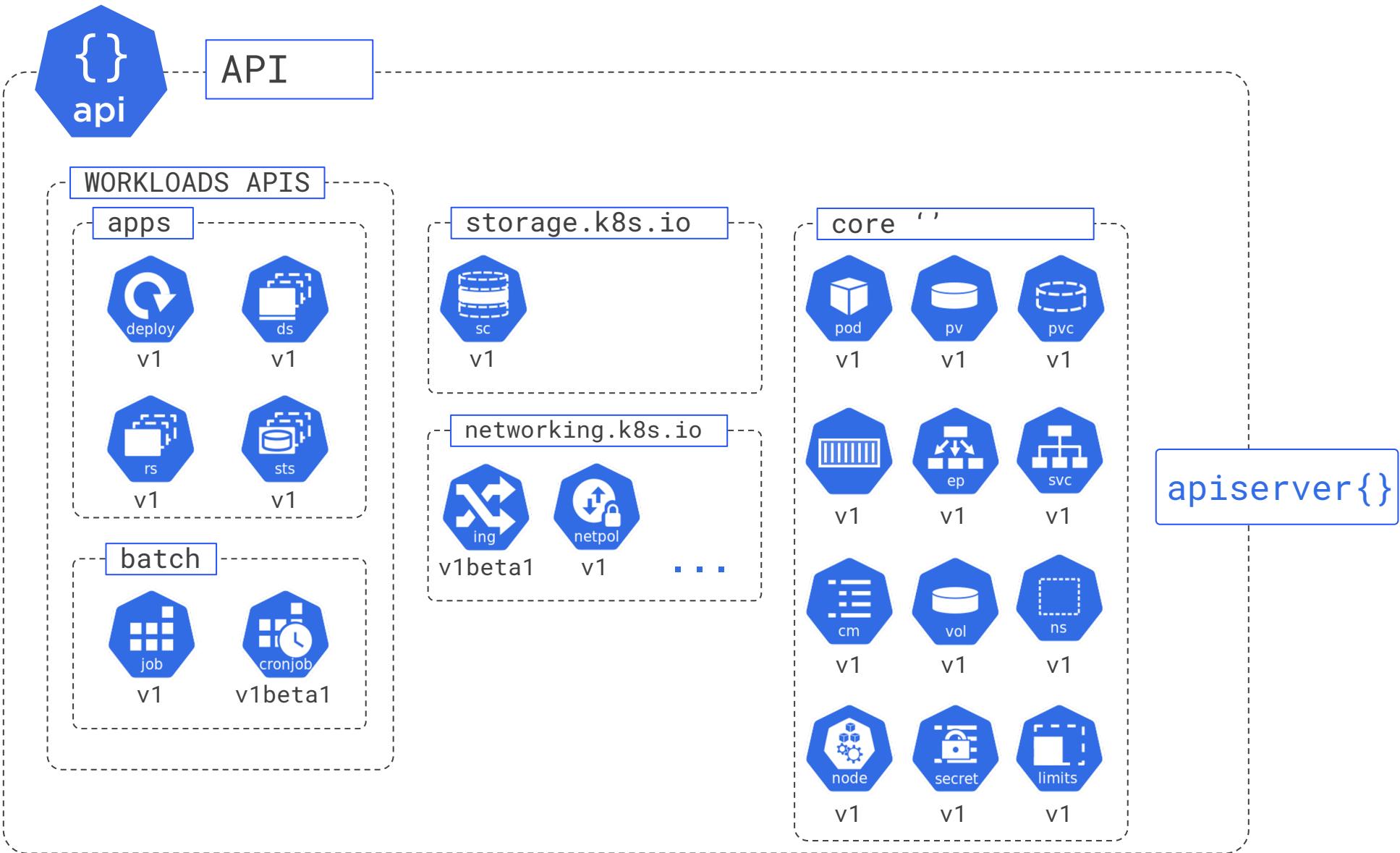
```
$ git clone https://github.com/nigelpoulton/getting-started-k8s.git  
$ cd getting-started-k8s/Pods  
$ kubectl apply -f pod.yml
```

Getting the Code

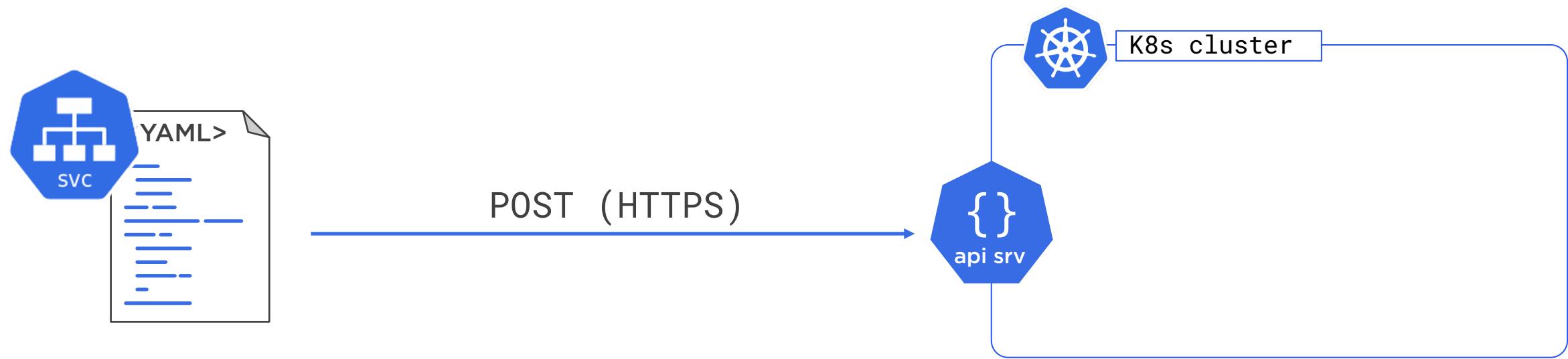
You'll need **git** installed, and **kubectl** configured to talk to your K8s cluster.

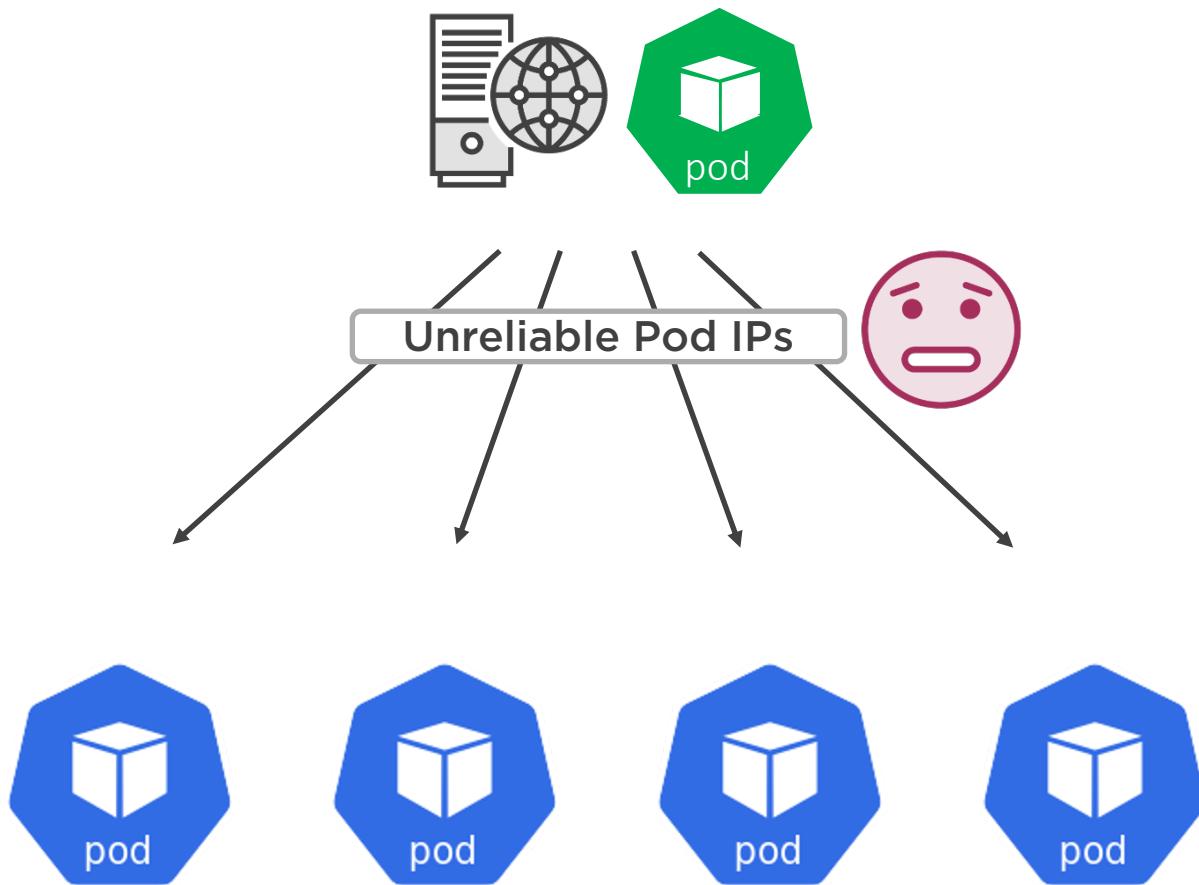


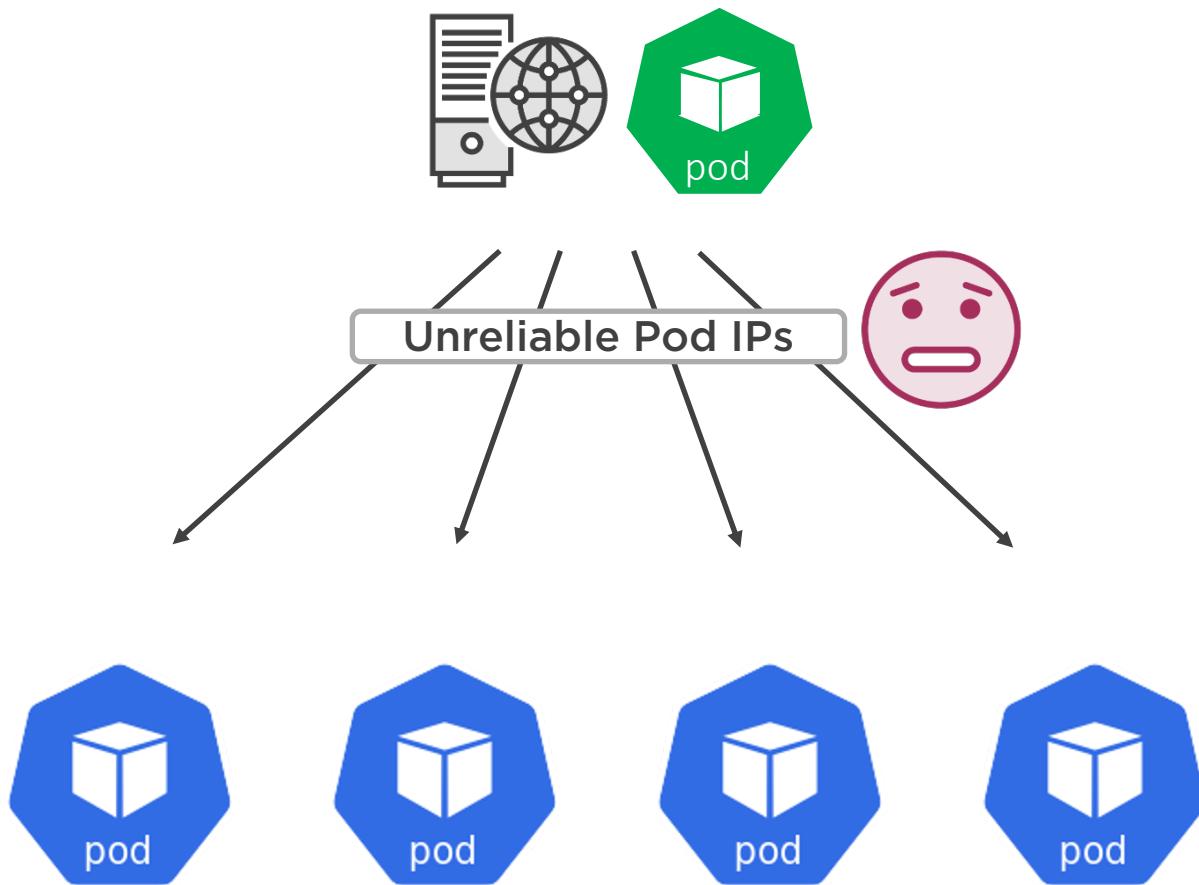


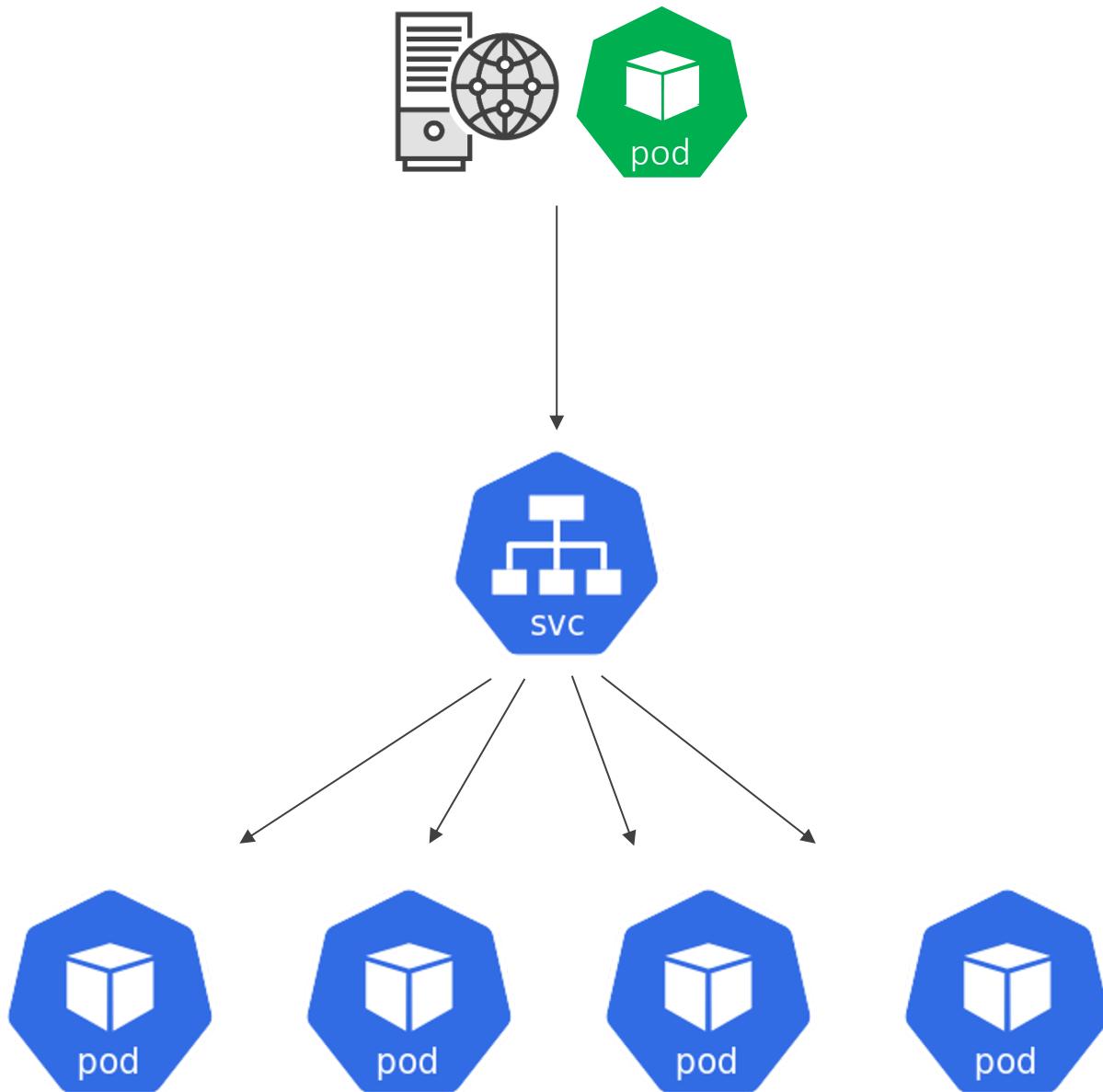


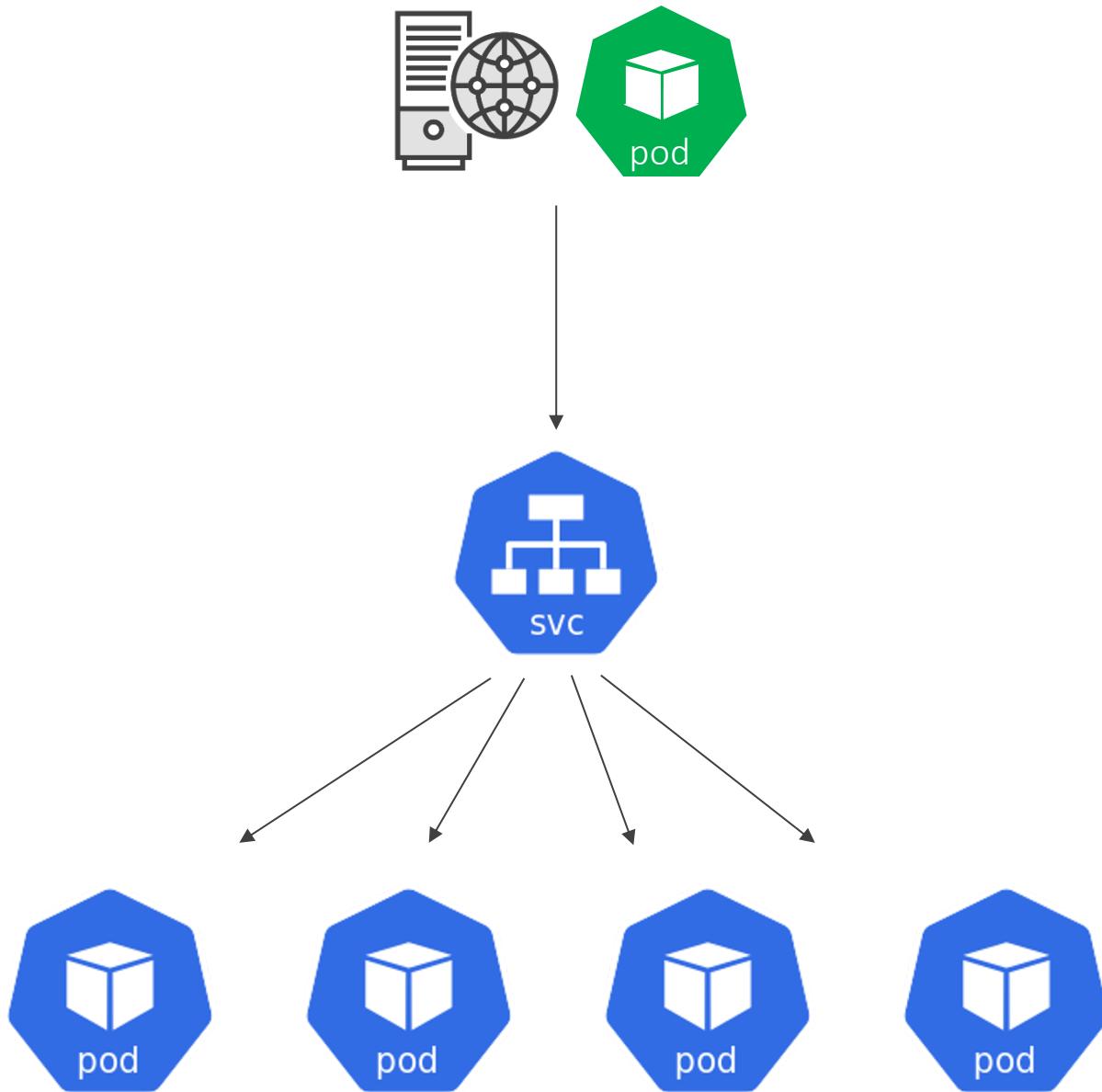


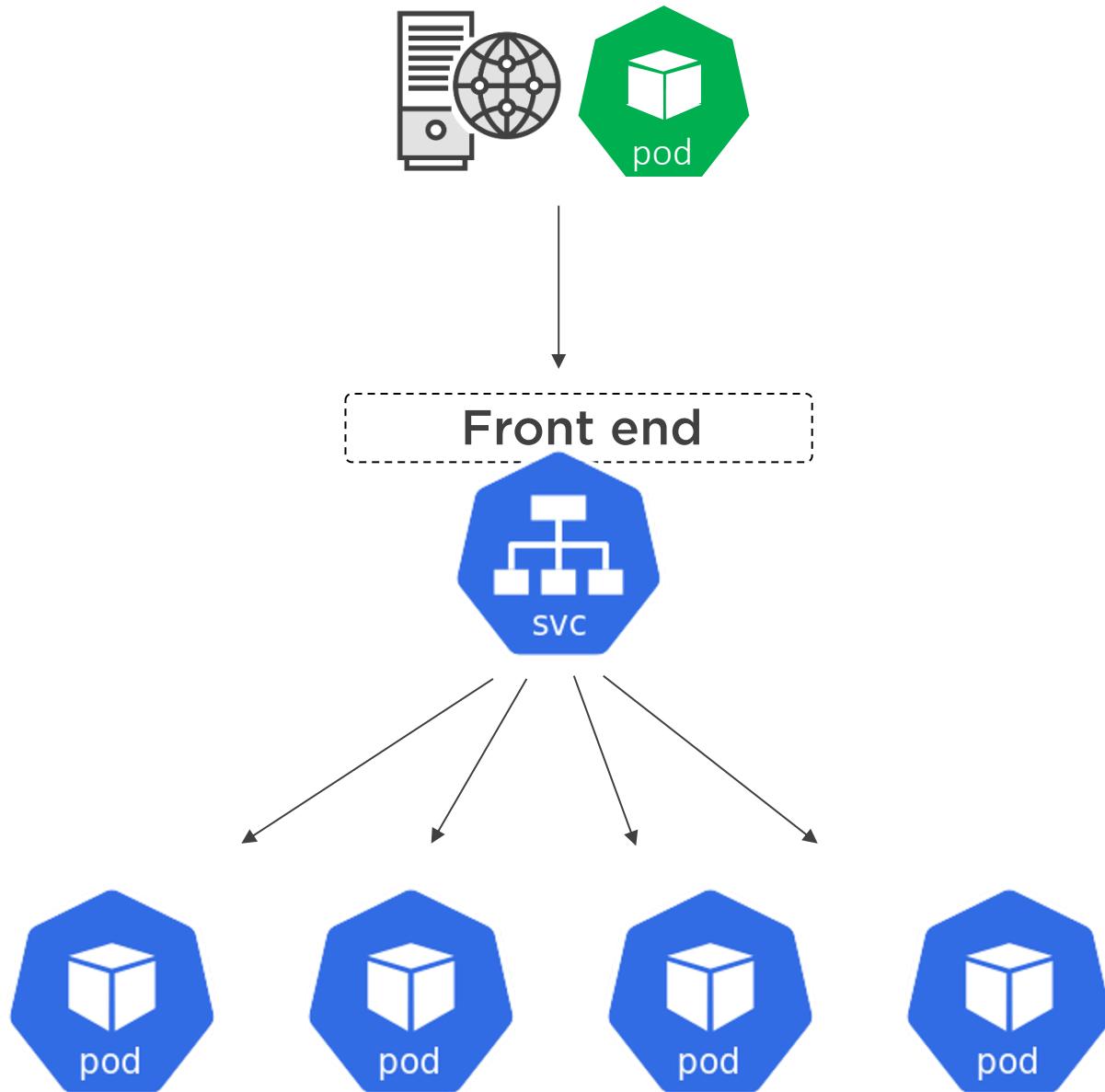


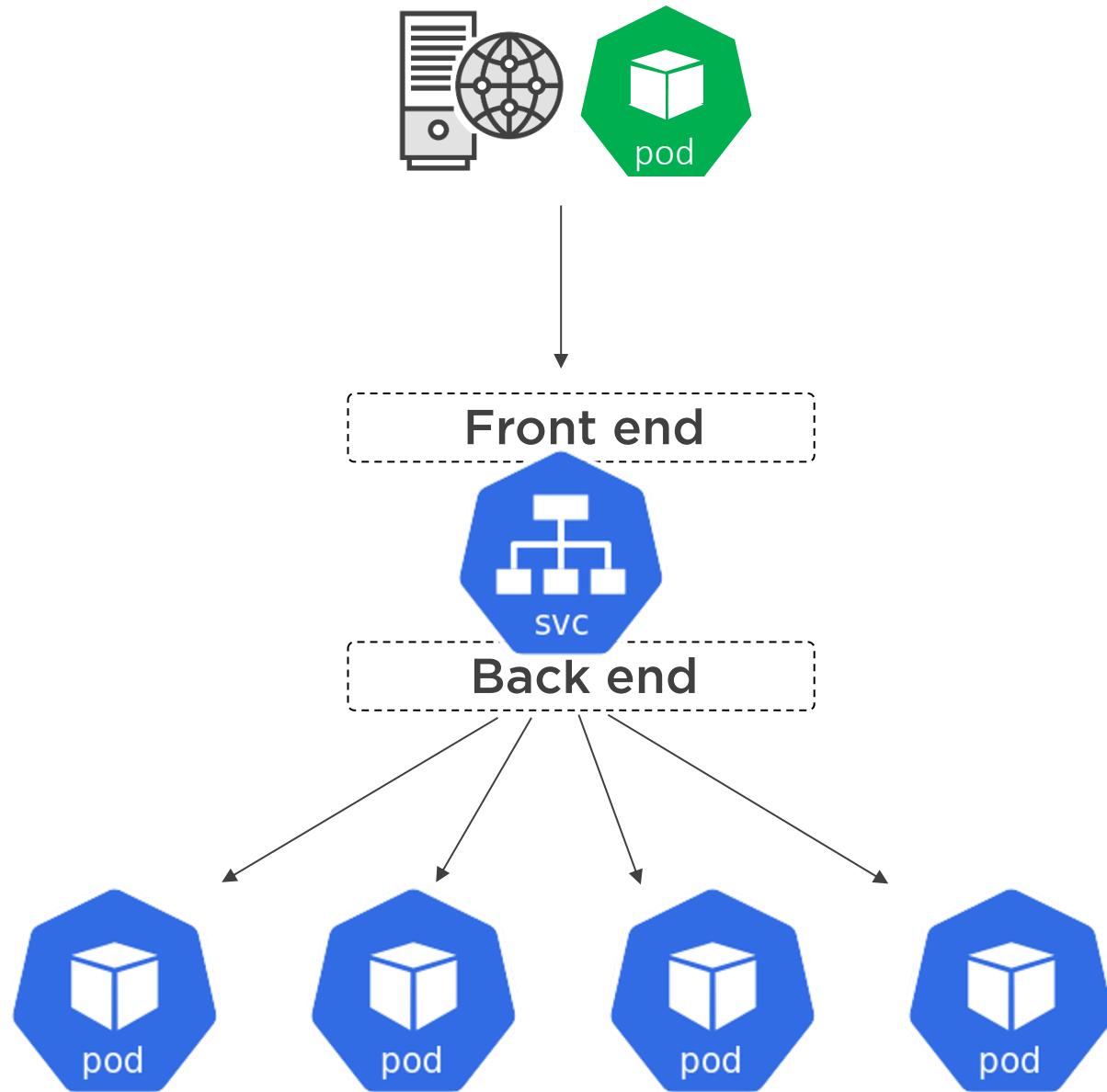


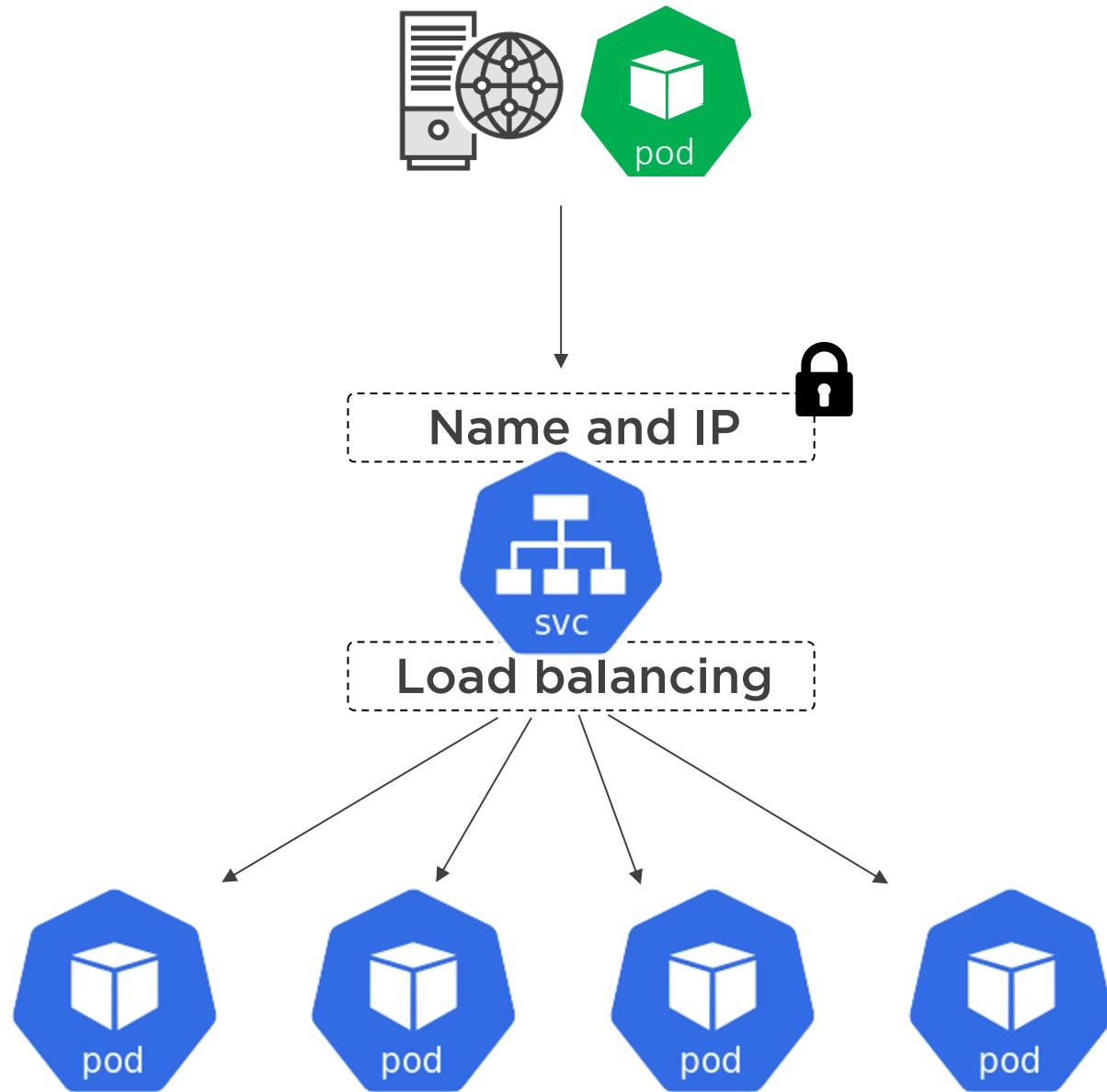


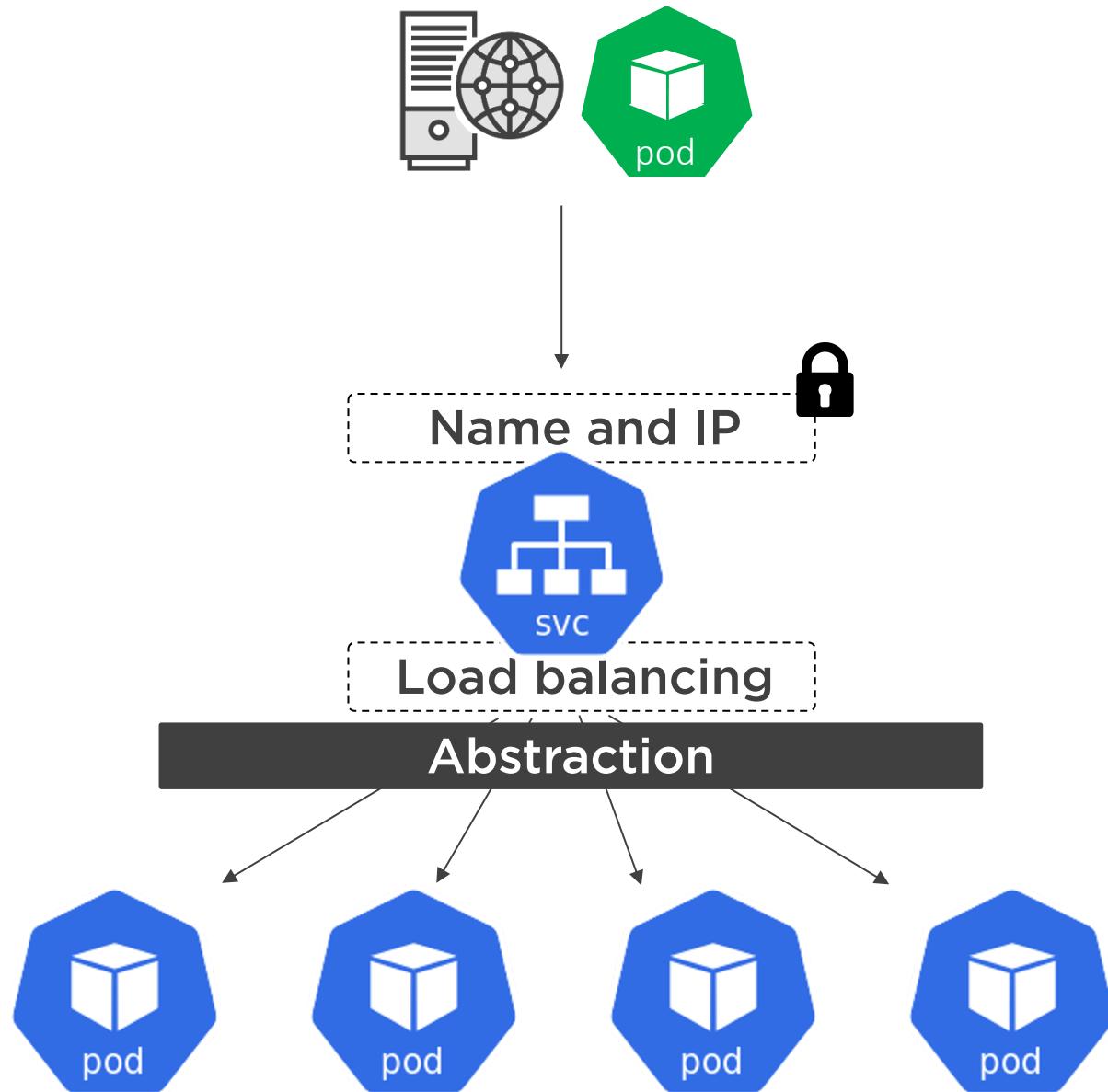


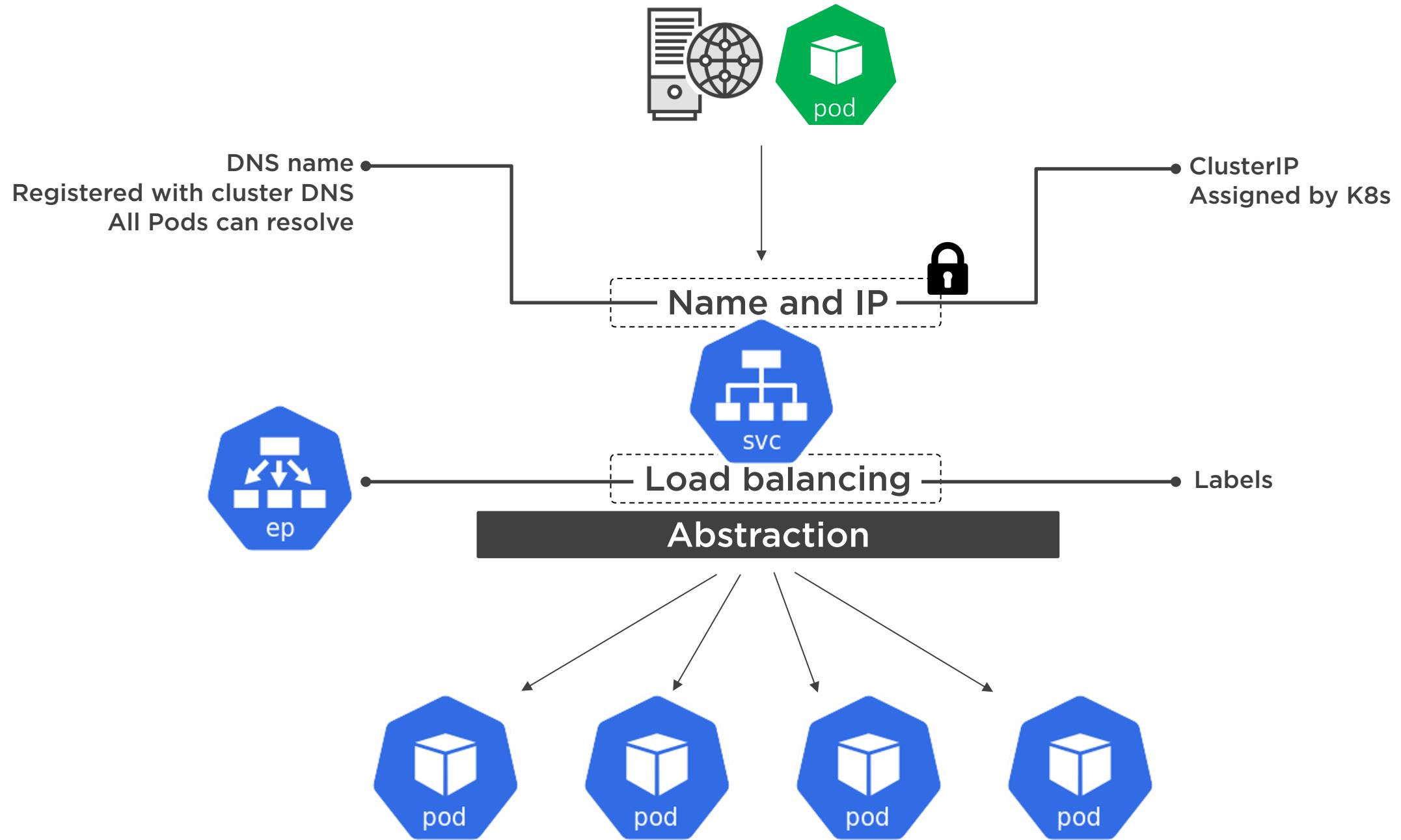


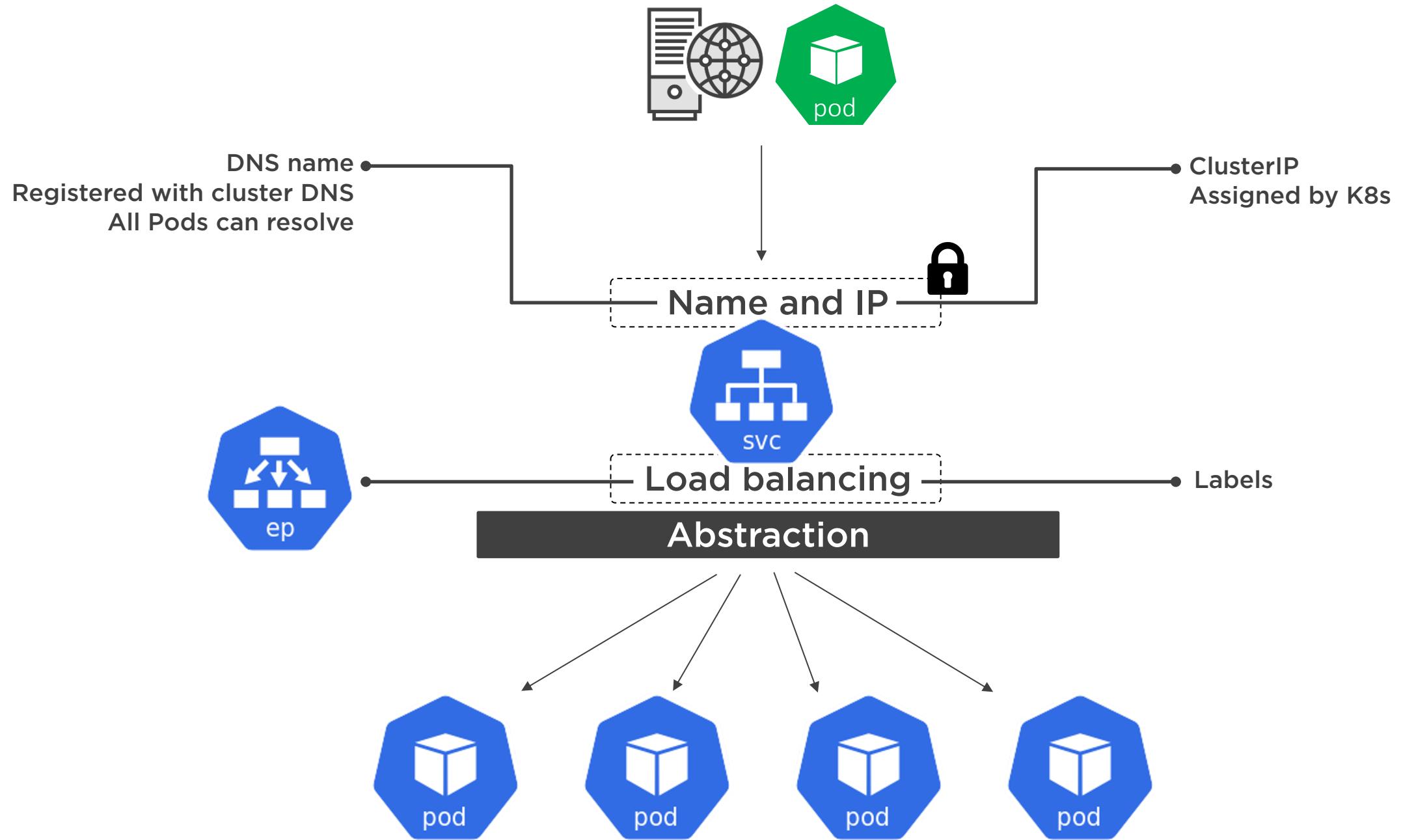


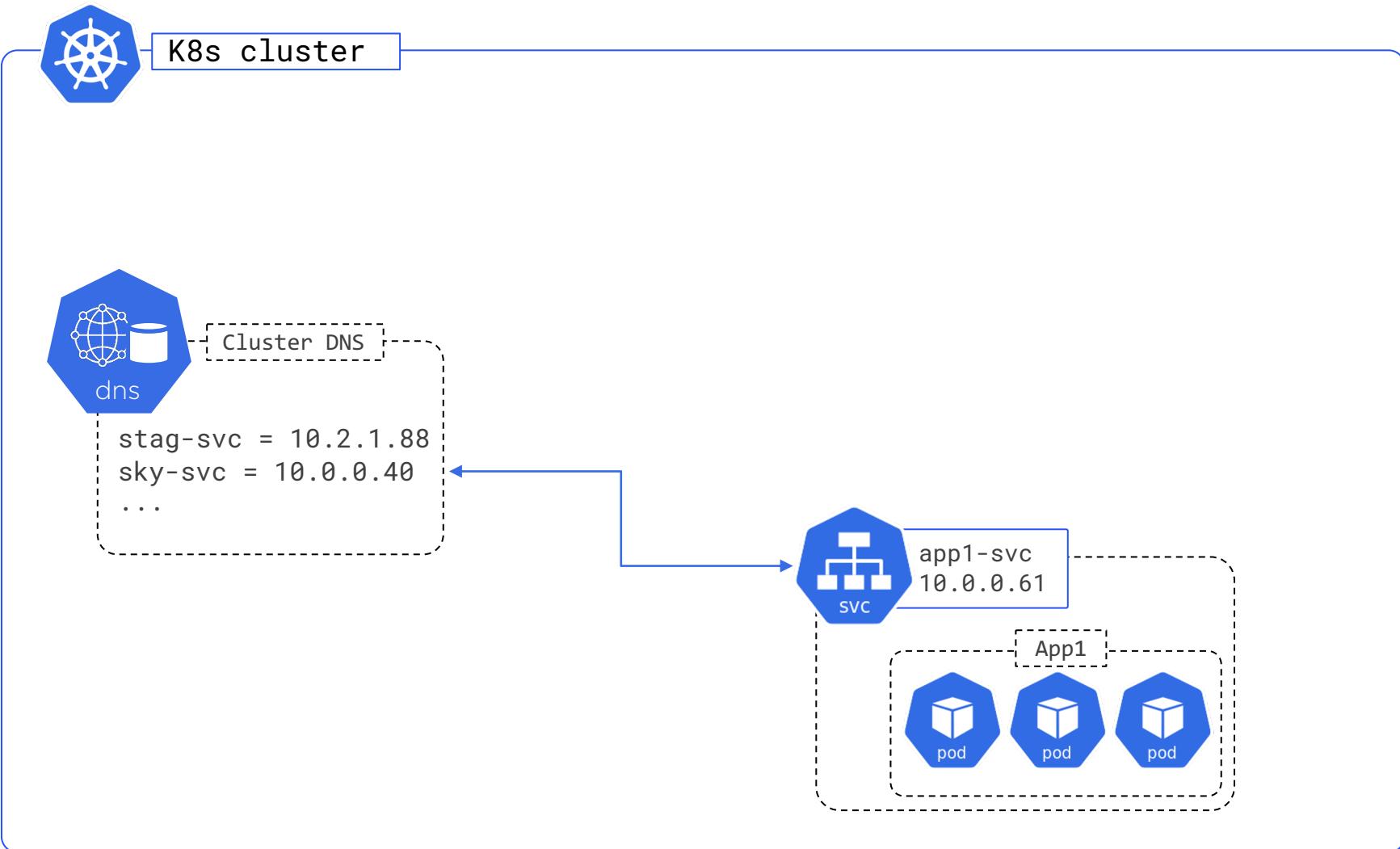


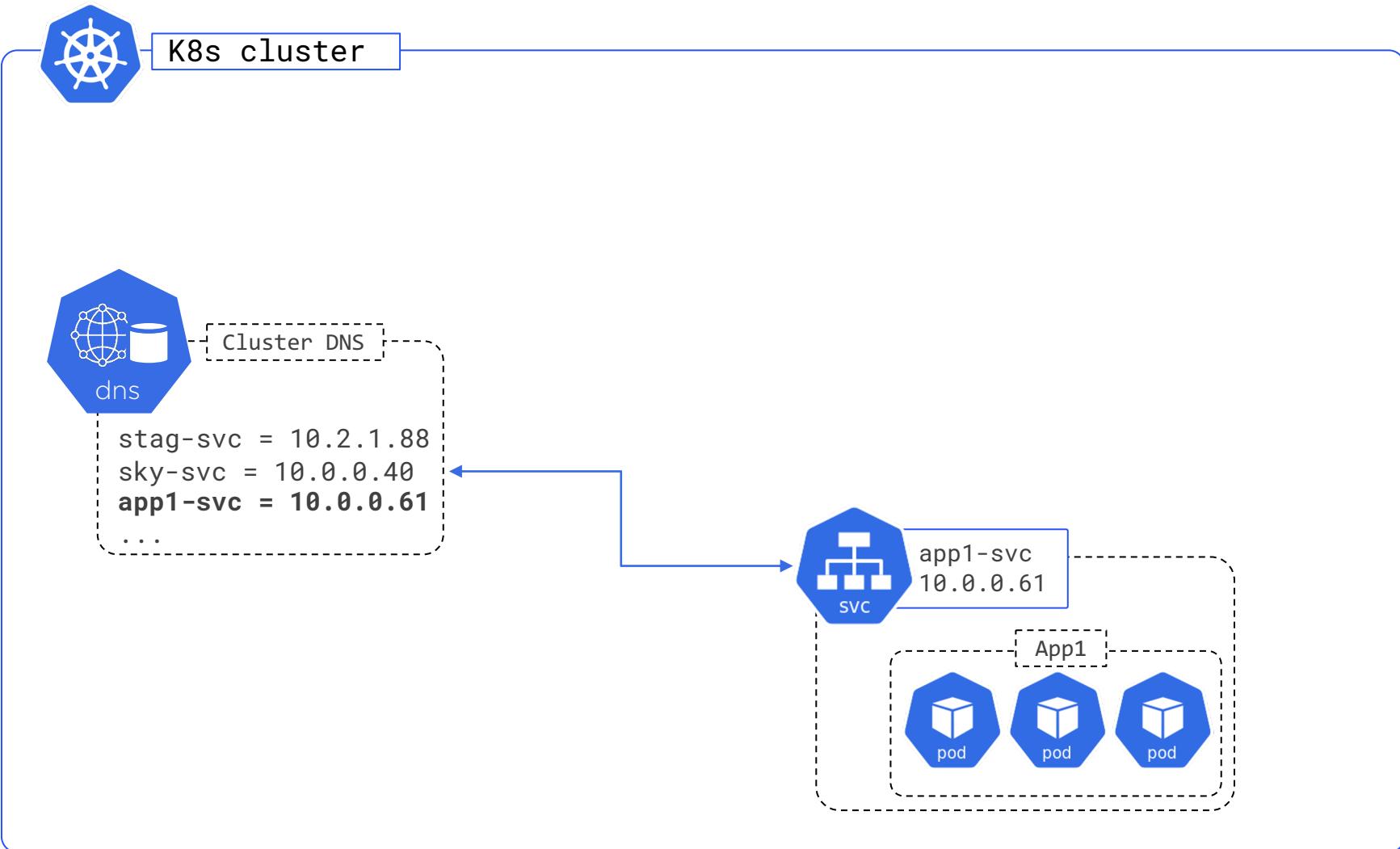


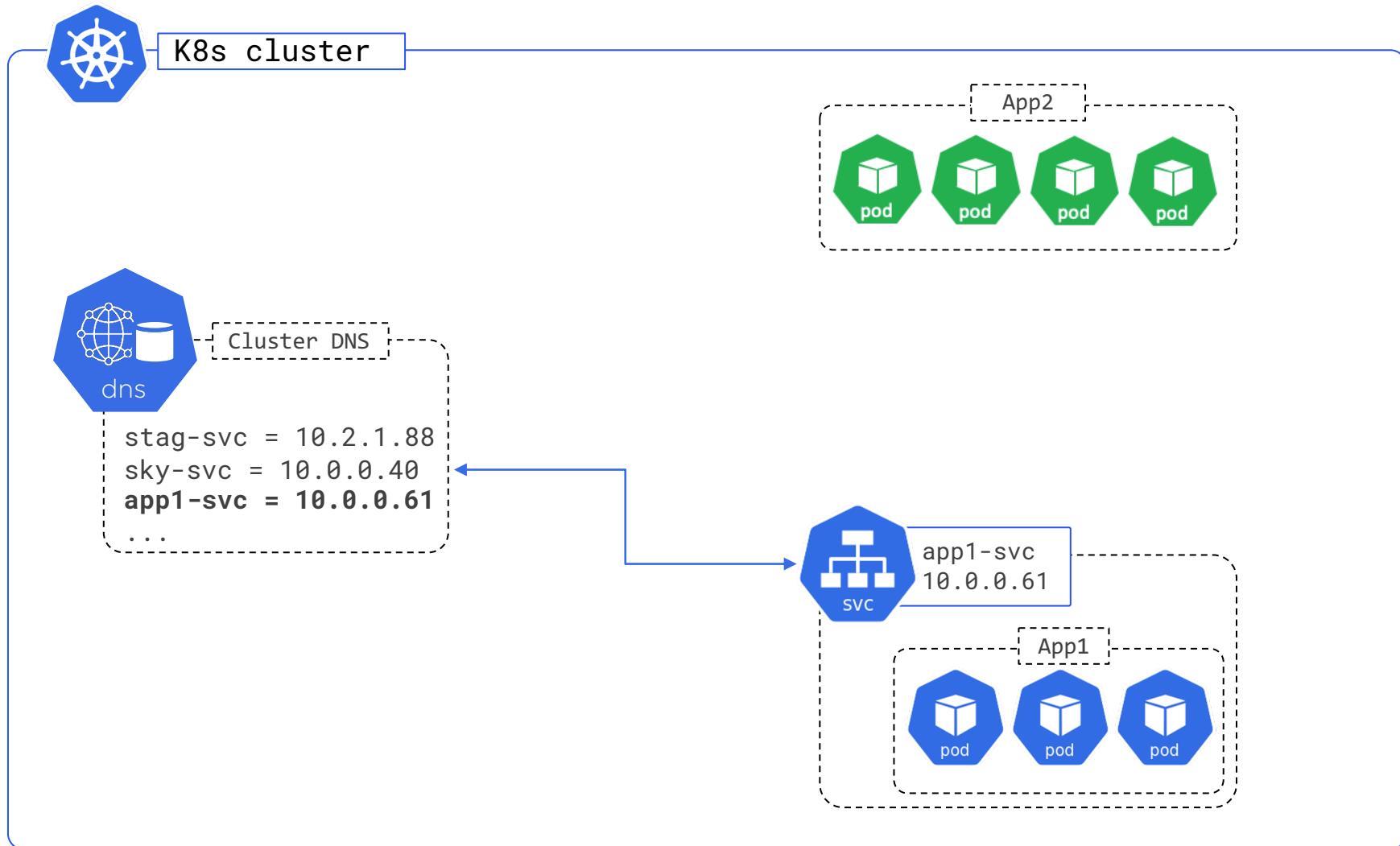


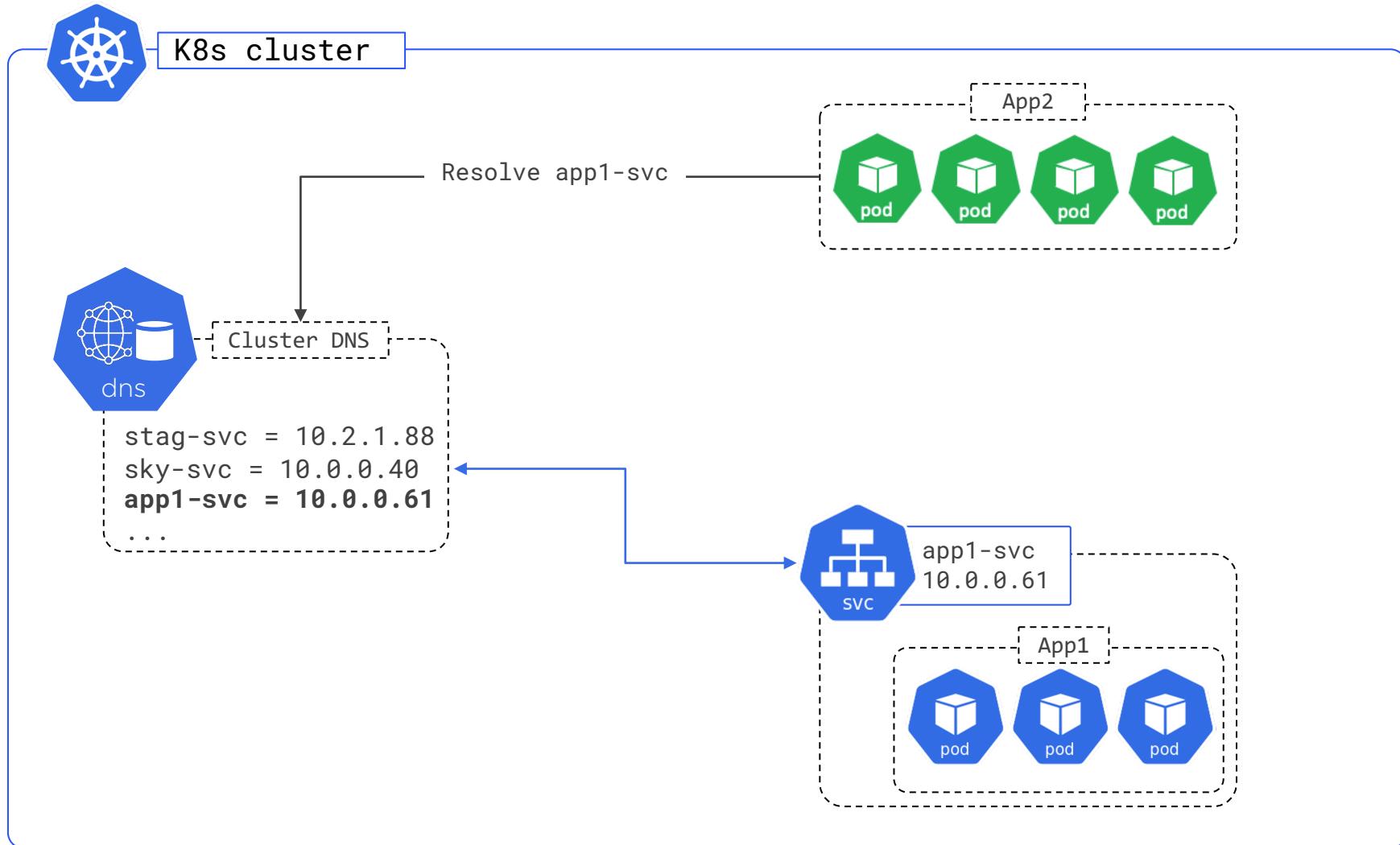


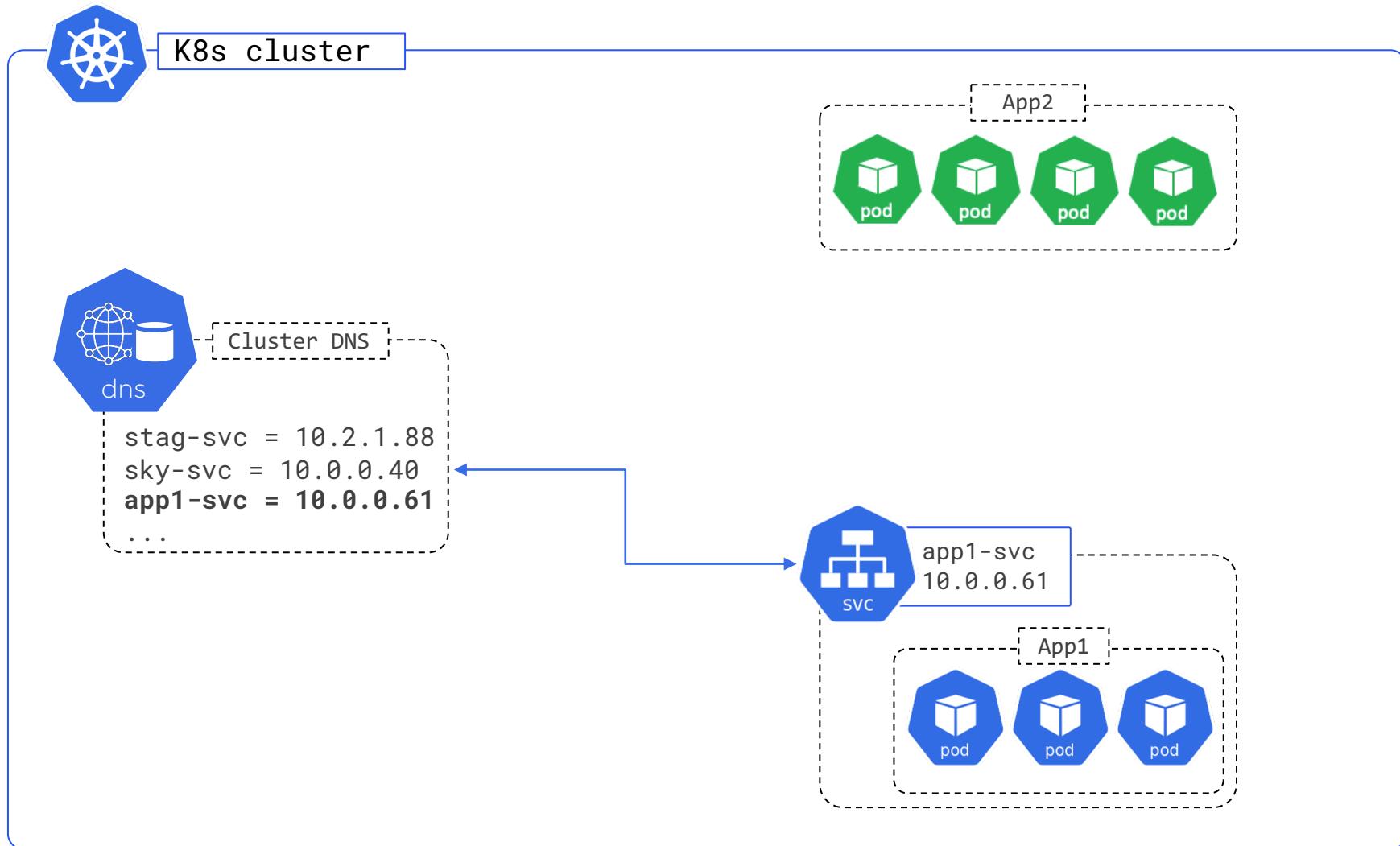


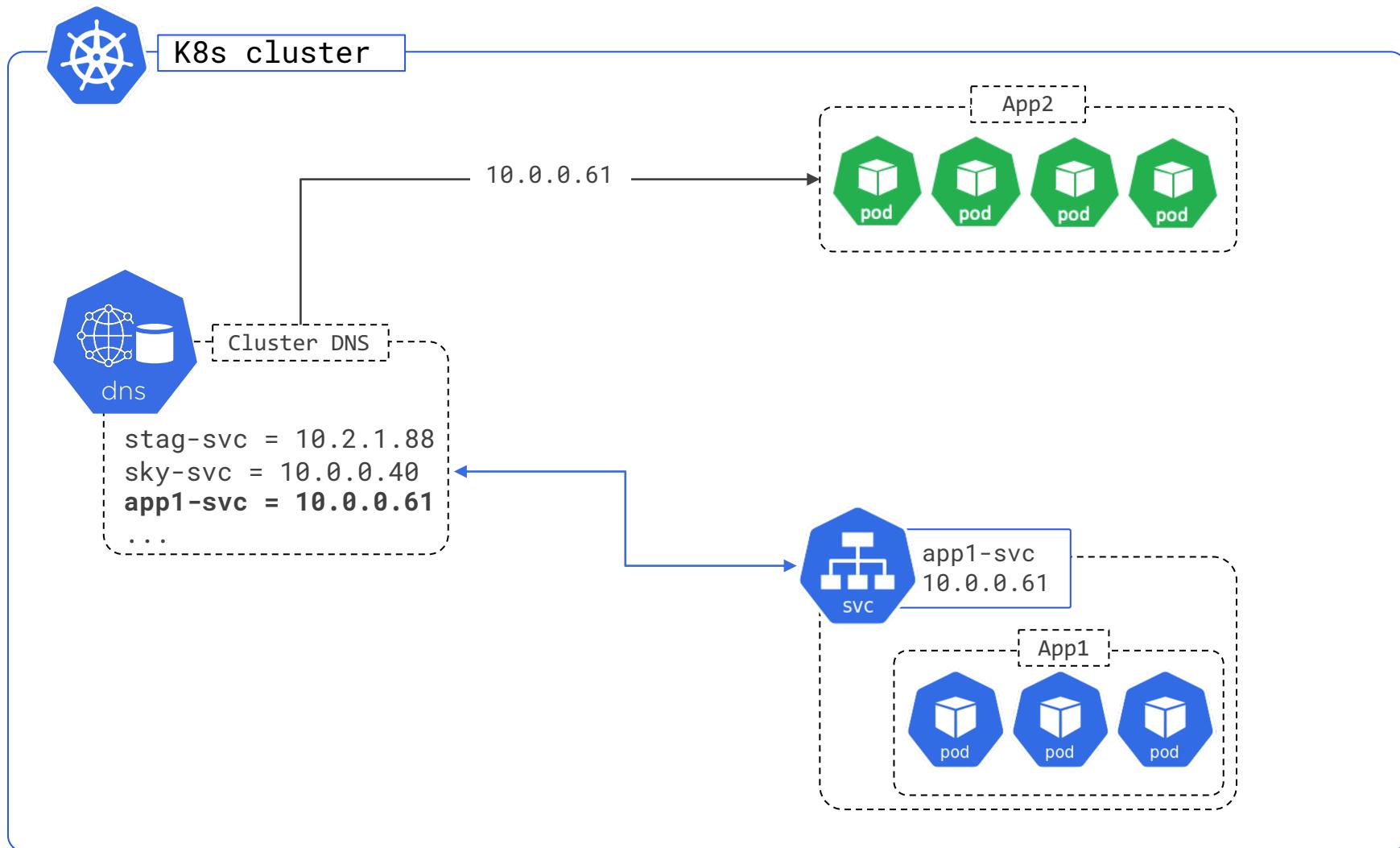


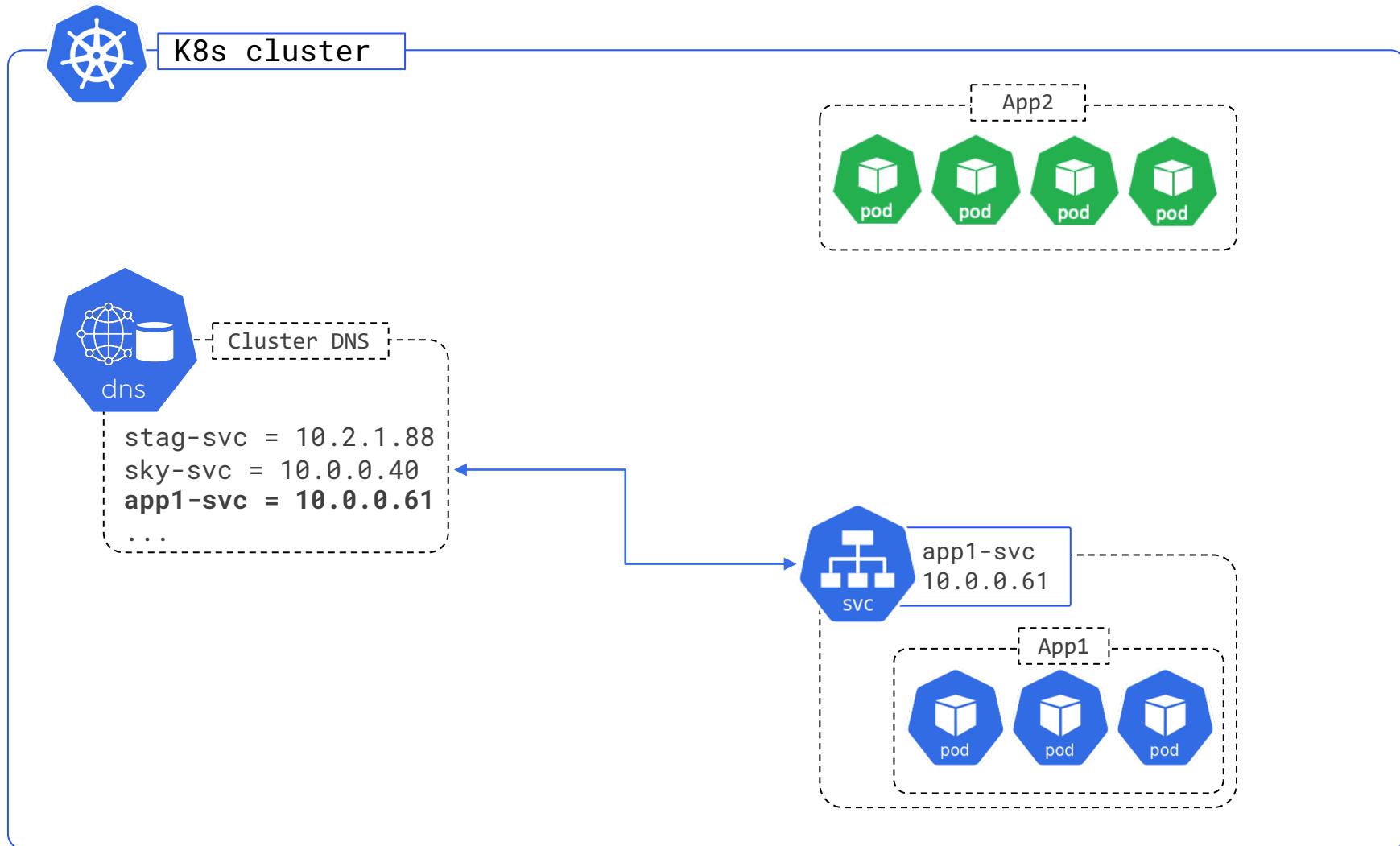


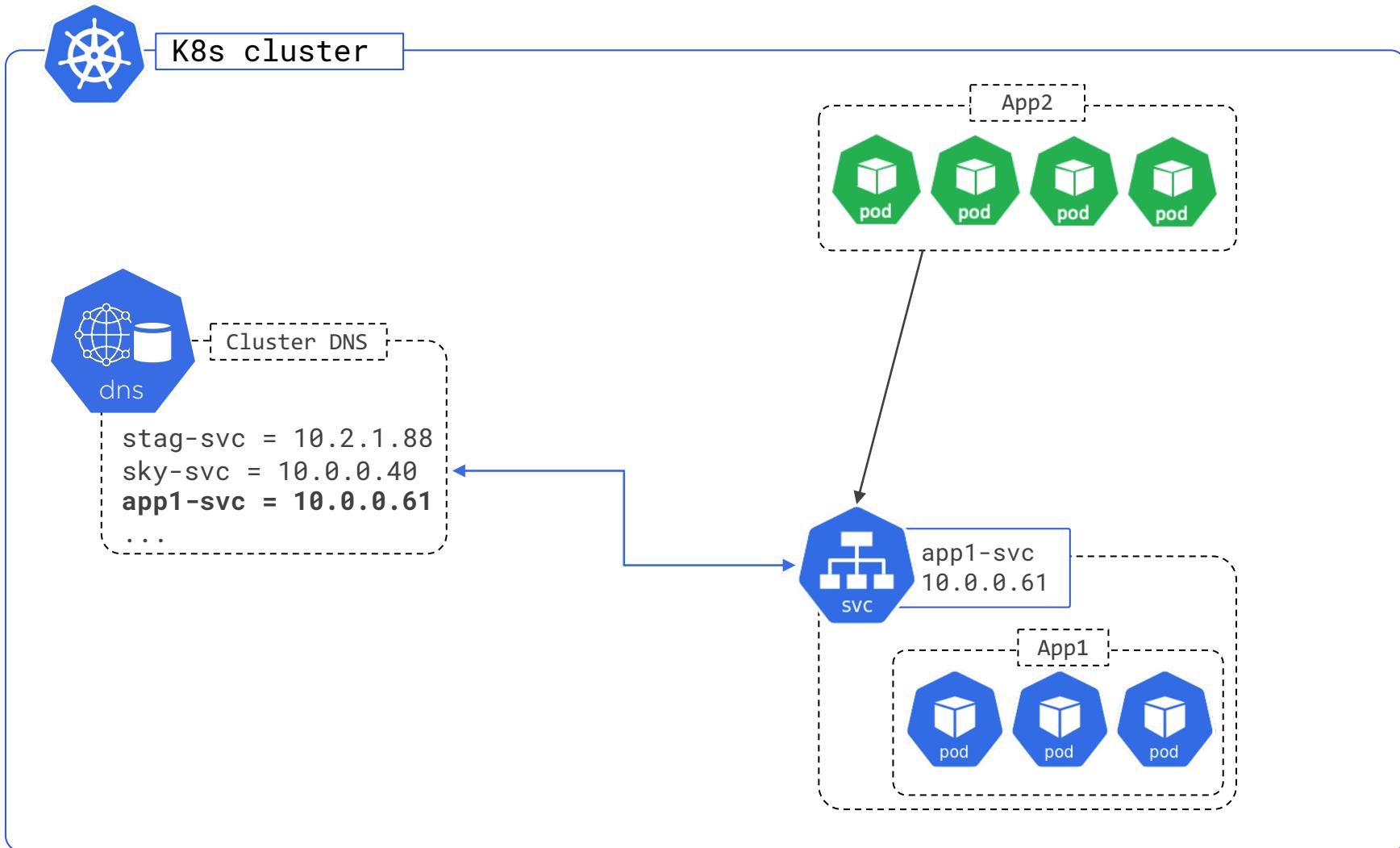


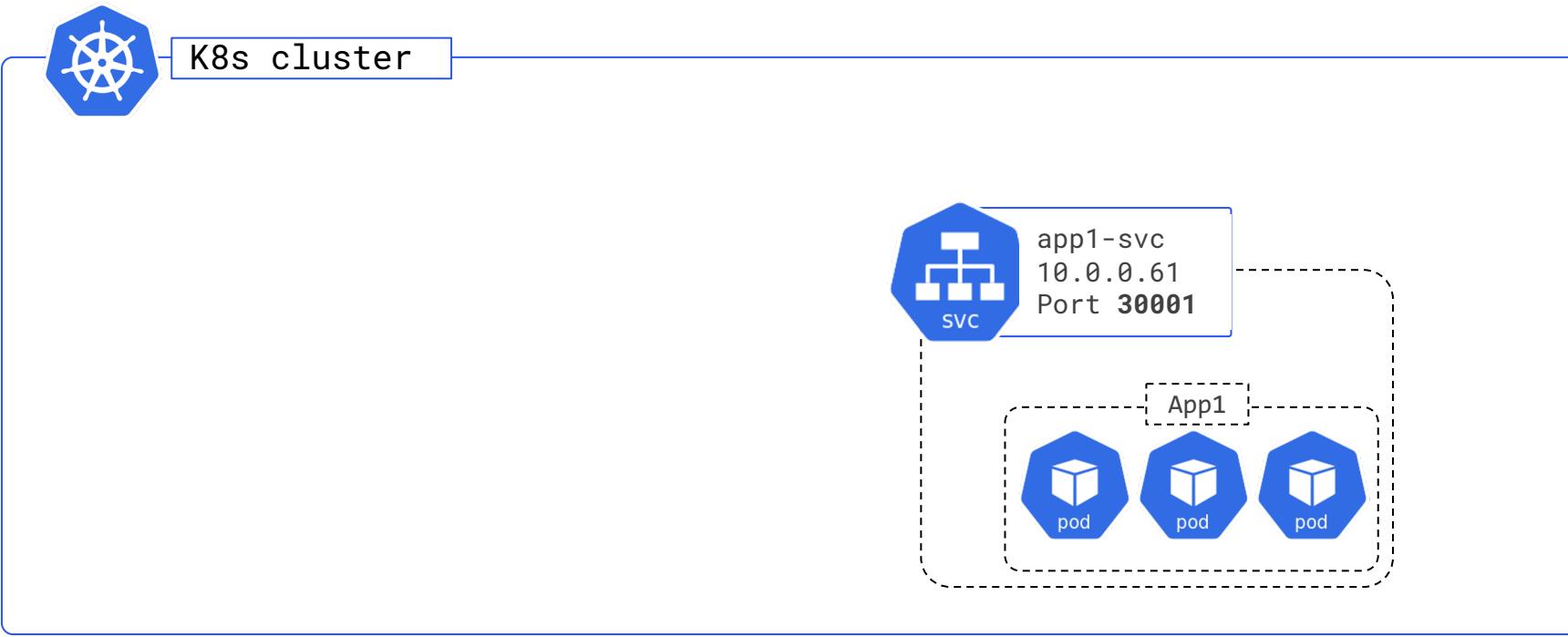




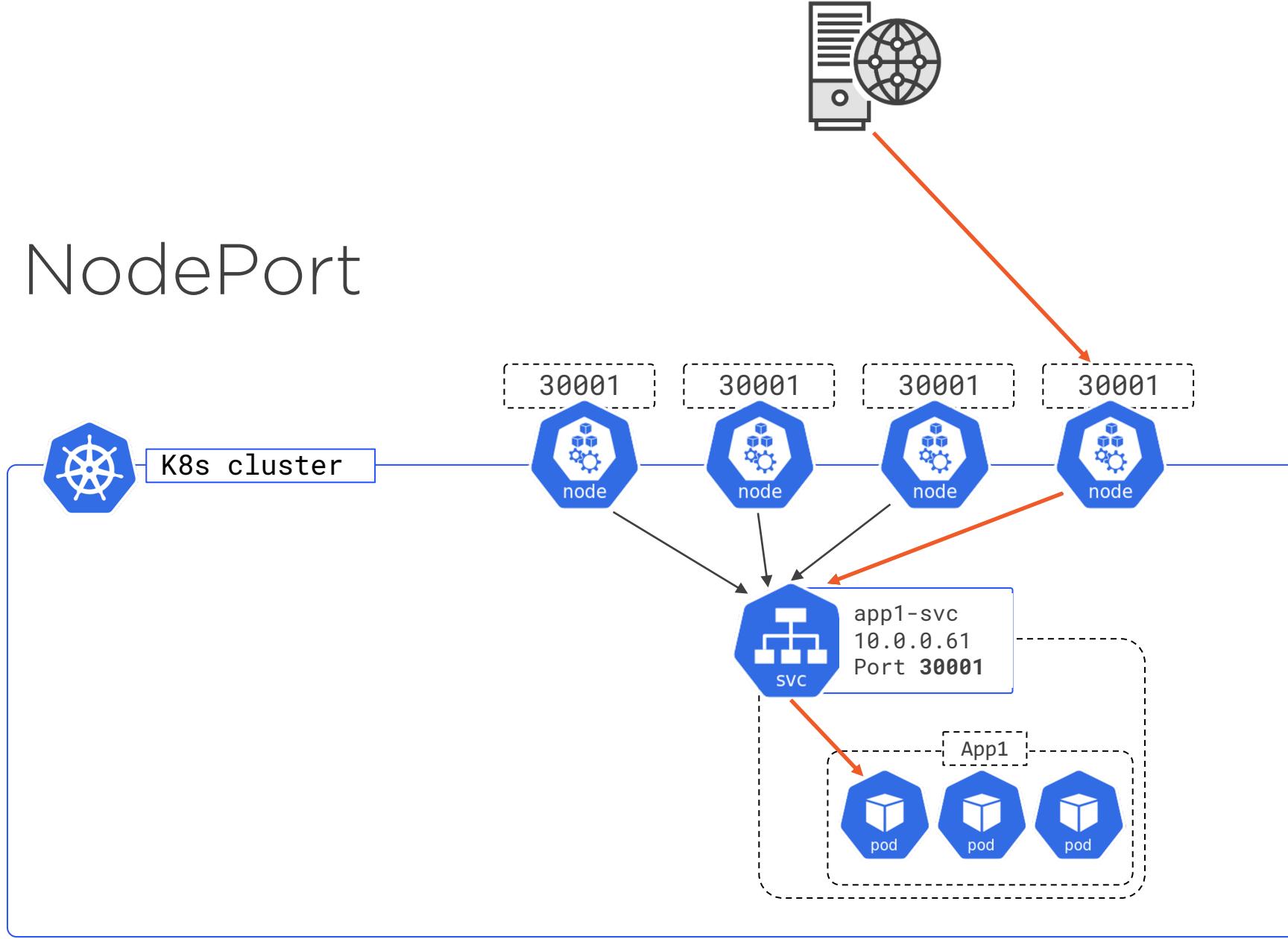






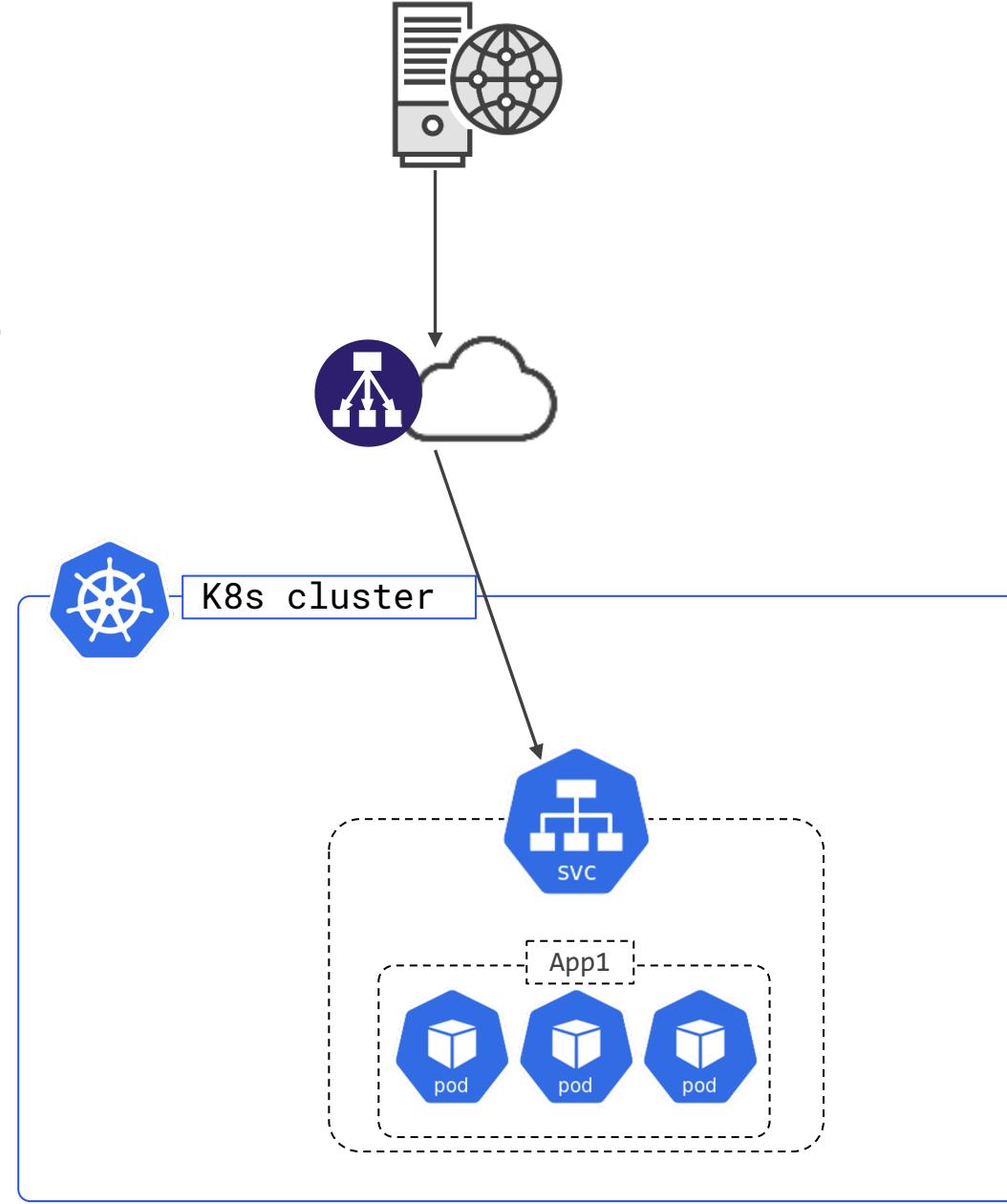


NodePort



LoadBalancer

```
apiVersion: v1
kind: Service
metadata:
  name: ps-lb
spec:
  type: LoadBalancer
ports:
- port: 80
  targetPort: 8080
selector:
  app: web
```



Up Next:
Creating a Service (the imperative way)



Creating a Service (the imperative way)





Unreliable

External access



Internal access



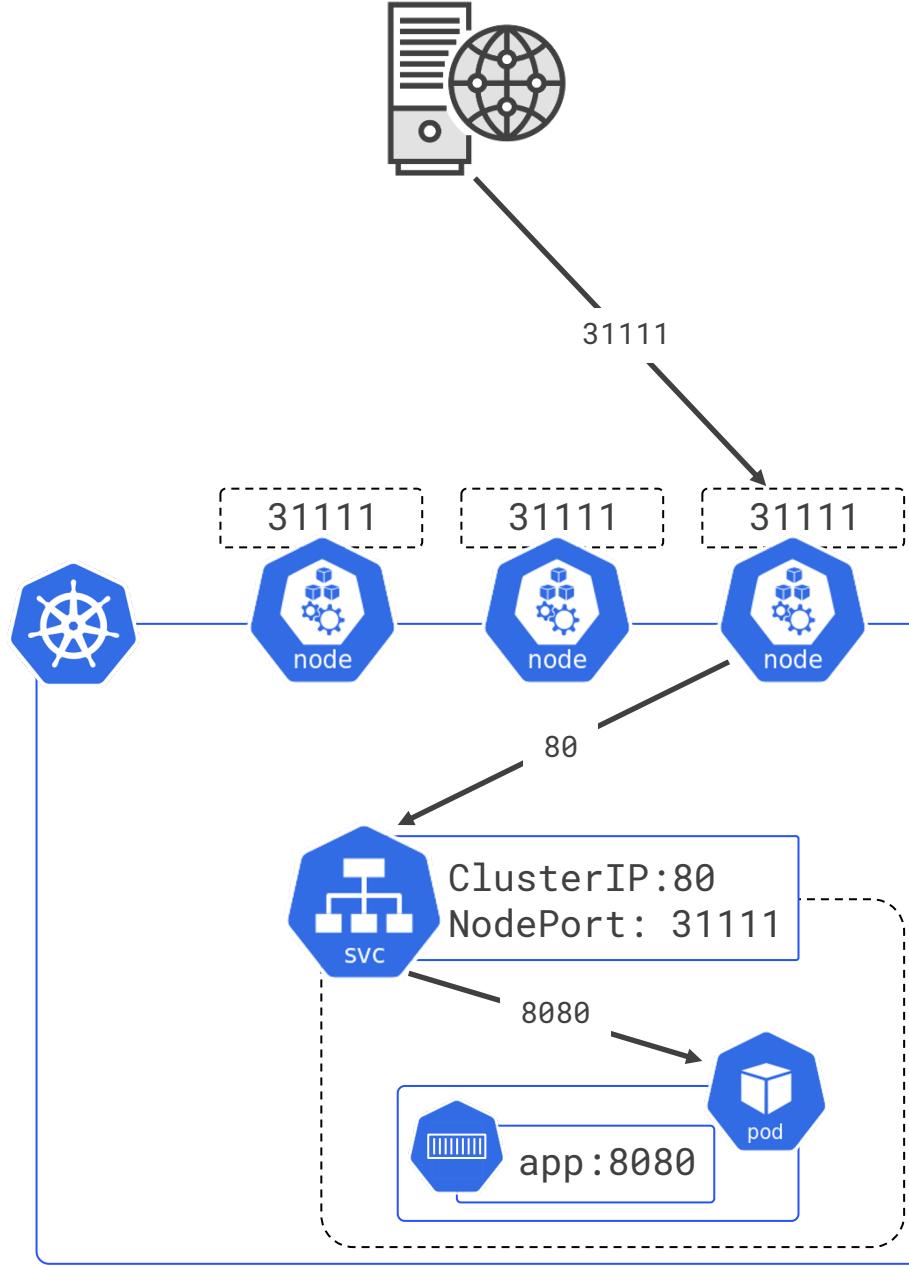
Up Next:
Creating a Service (the declarative way)



Creating a Service (the declarative way)



NodePort



LoadBalancer

External access via cloud load-balancer

NodePort

External access via nodes

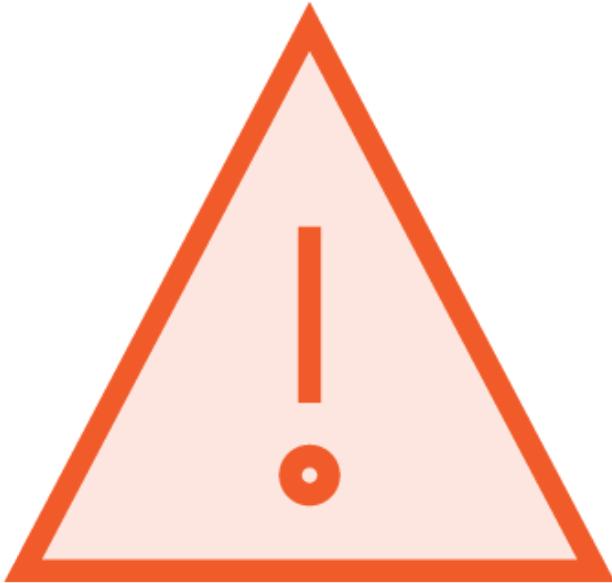
ClusterIP (default)

Internal cluster connectivity



Creating Internet LoadBalancer Services





**Only works on supported platforms
and supported load balancers**



Up Next: Services Recap



Recap



Stable Networking

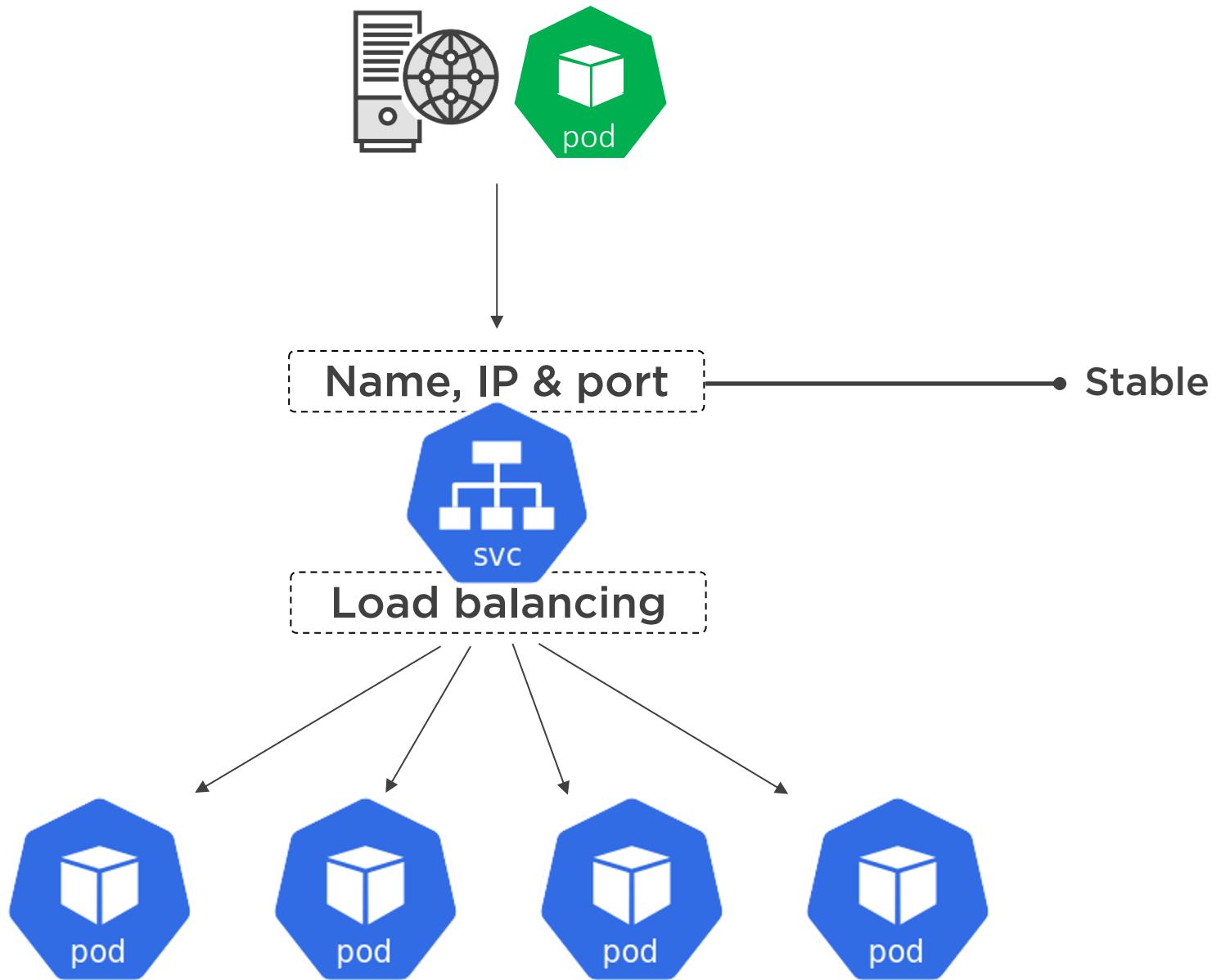
Reliable networking for a set
of Pods

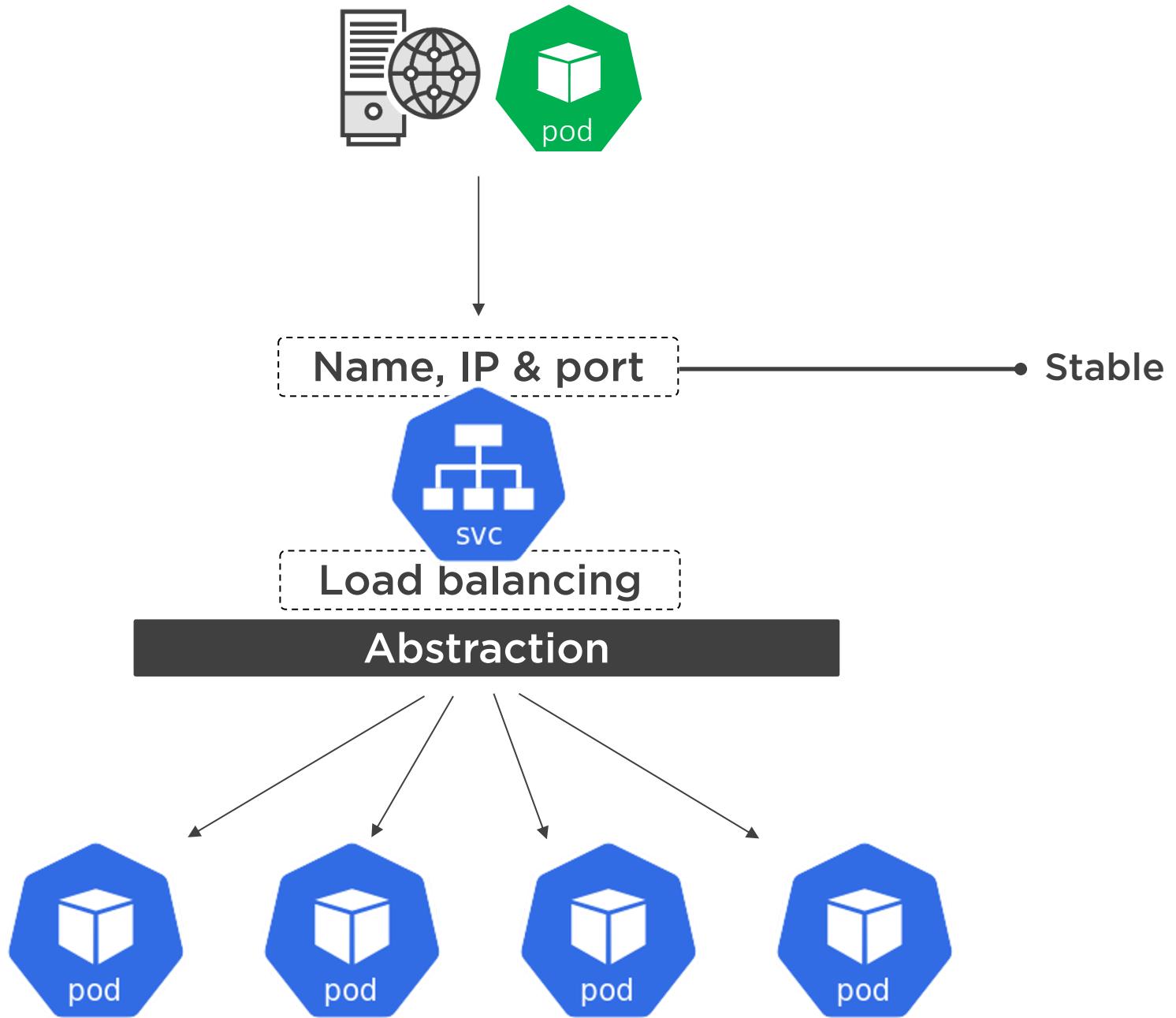


Abstraction

Hides the unreliable nature of
Pods

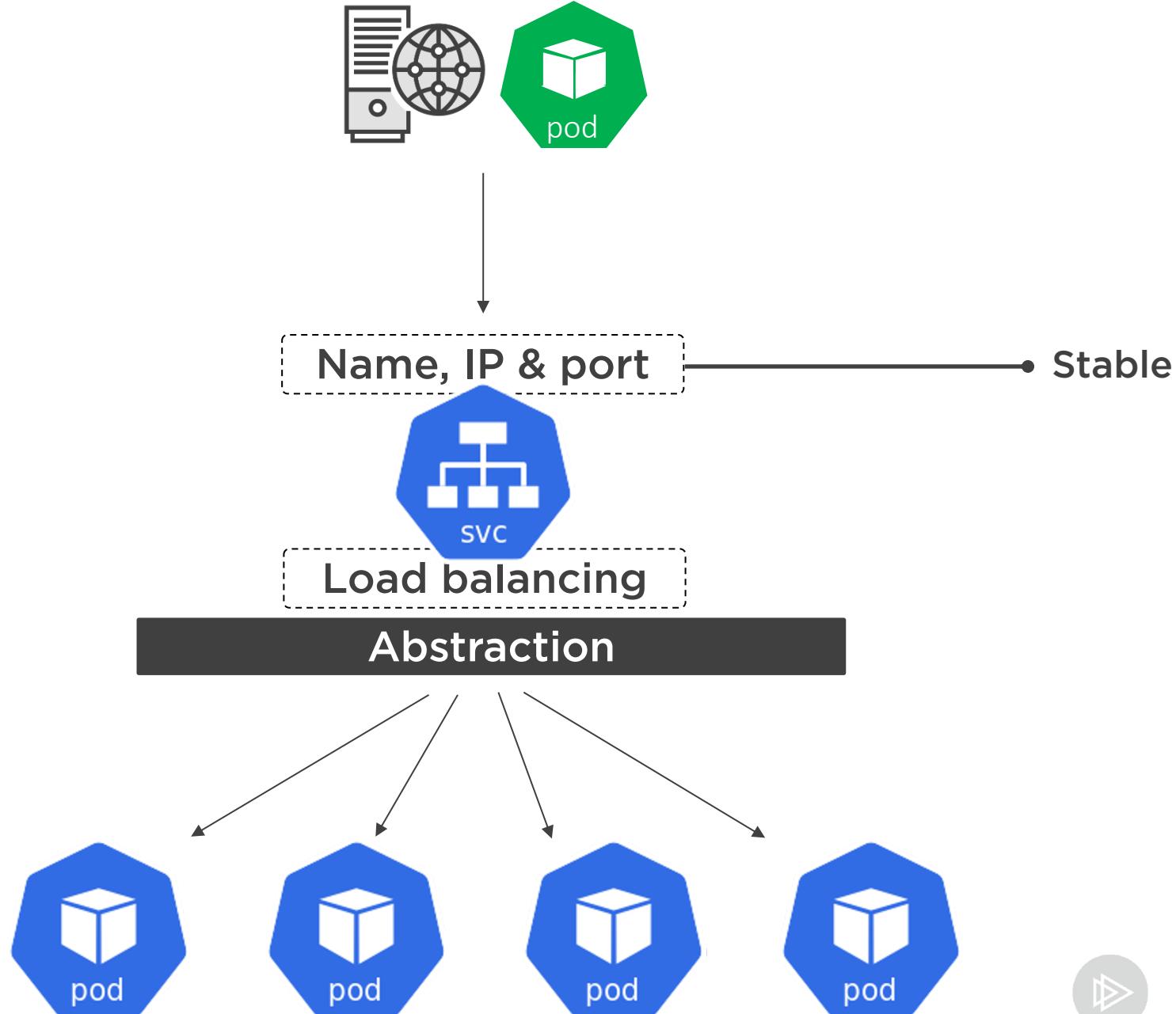






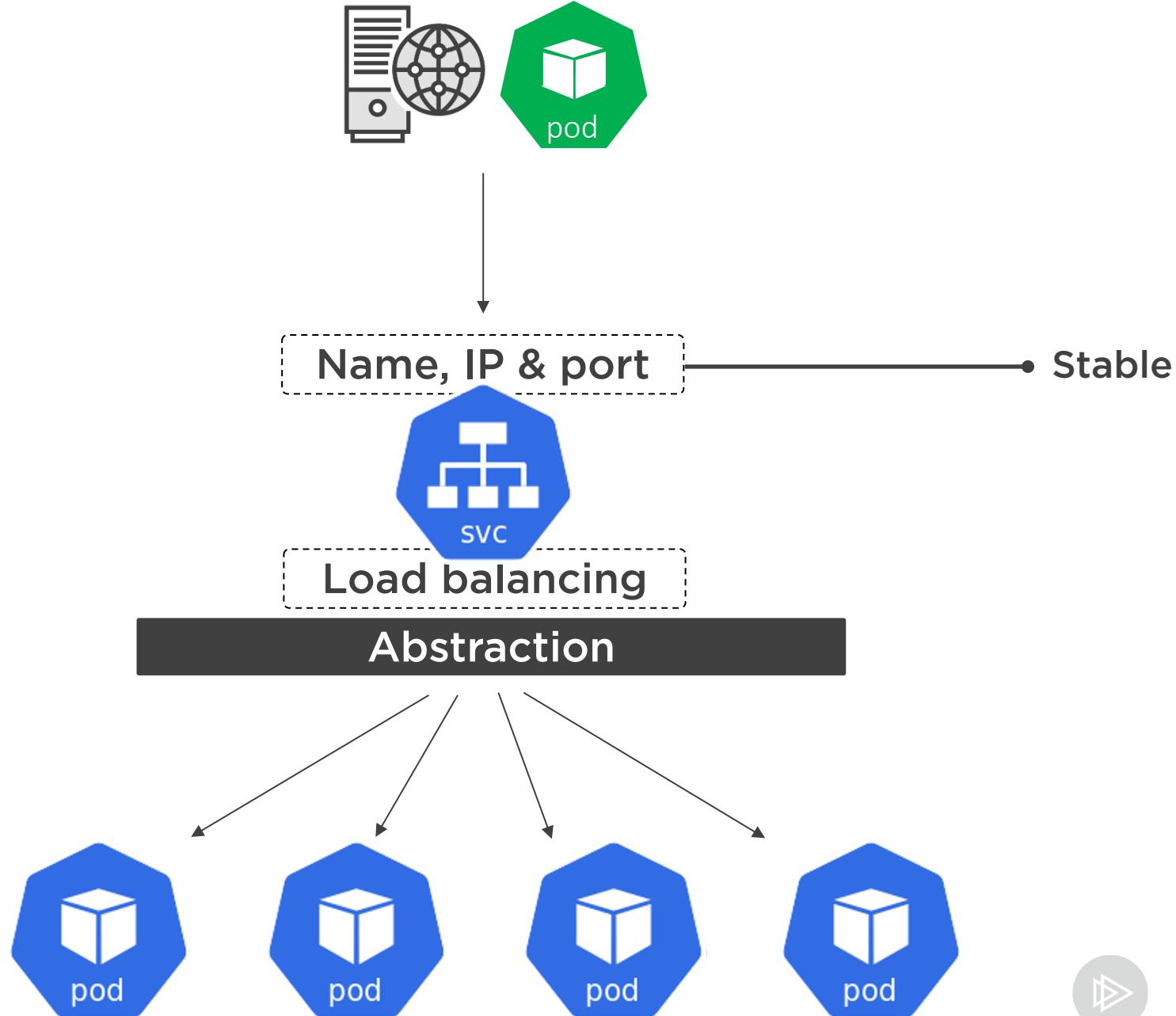
ClusterIP (default)

Internal cluster connectivity

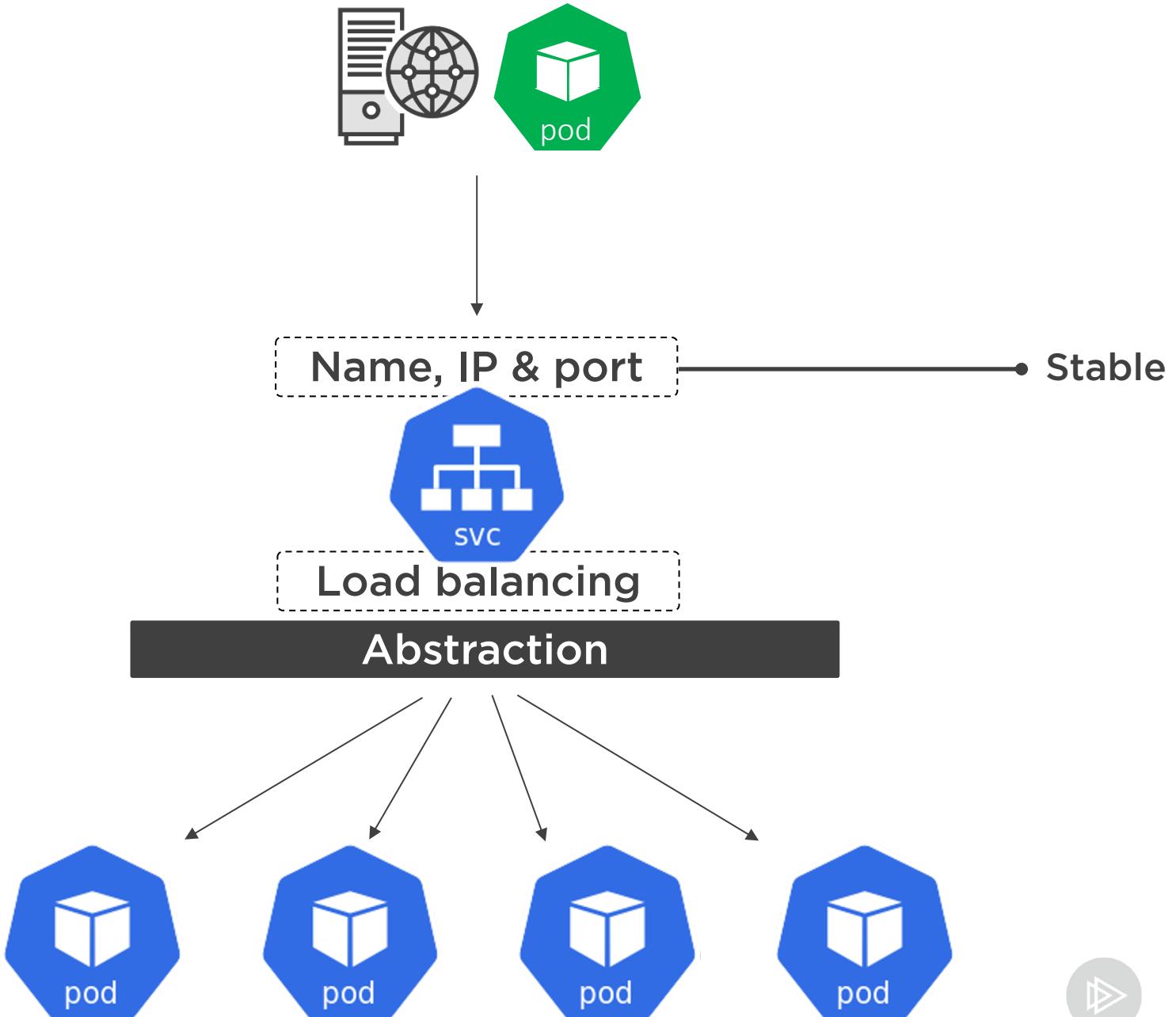


NodePort
External access via nodes

ClusterIP (default)
Internal cluster connectivity



- LoadBalancer**
External access via cloud load-balancer
- NodePort**
External access via nodes
- ClusterIP (default)**
Internal cluster connectivity



Up Next:
Kubernetes Deployments

