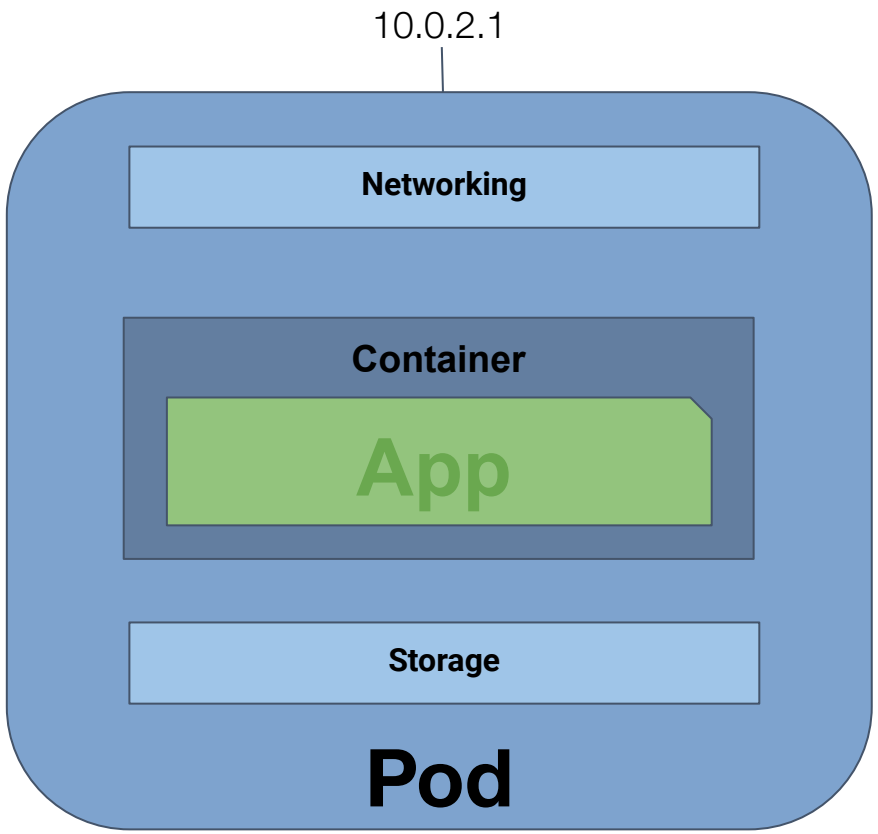
K8s: Multi-container Pod Patterns

Develop Intelligence

Module Outline

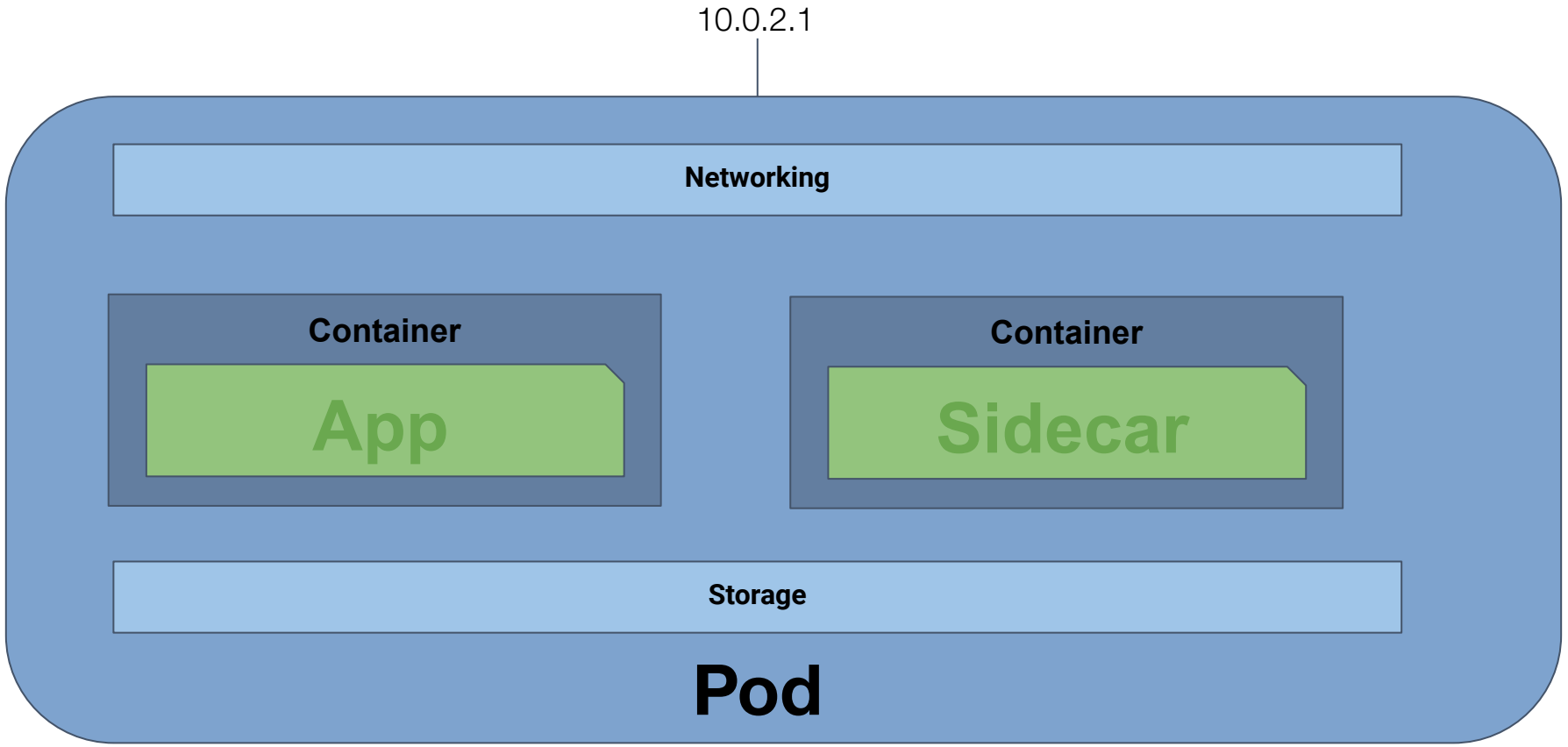
- Sidecar
- Adaptor
- Ambassador
- Init Containers
- Review

Pods



"One container per pod, right?"

Multi-container Pods



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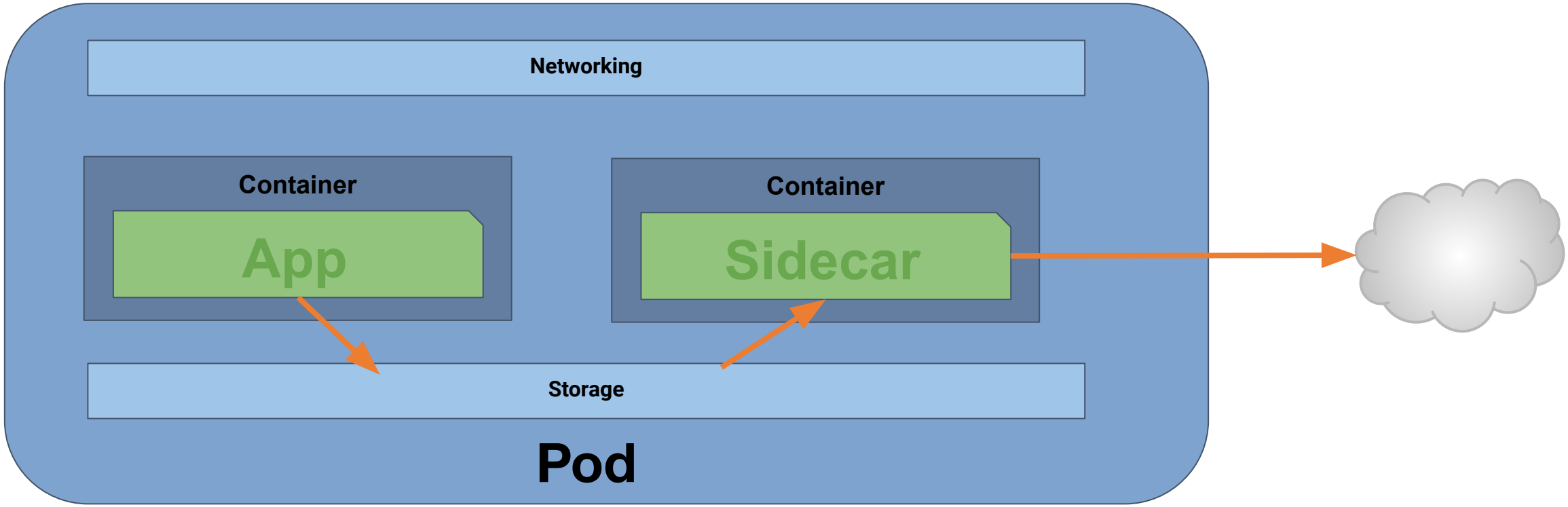
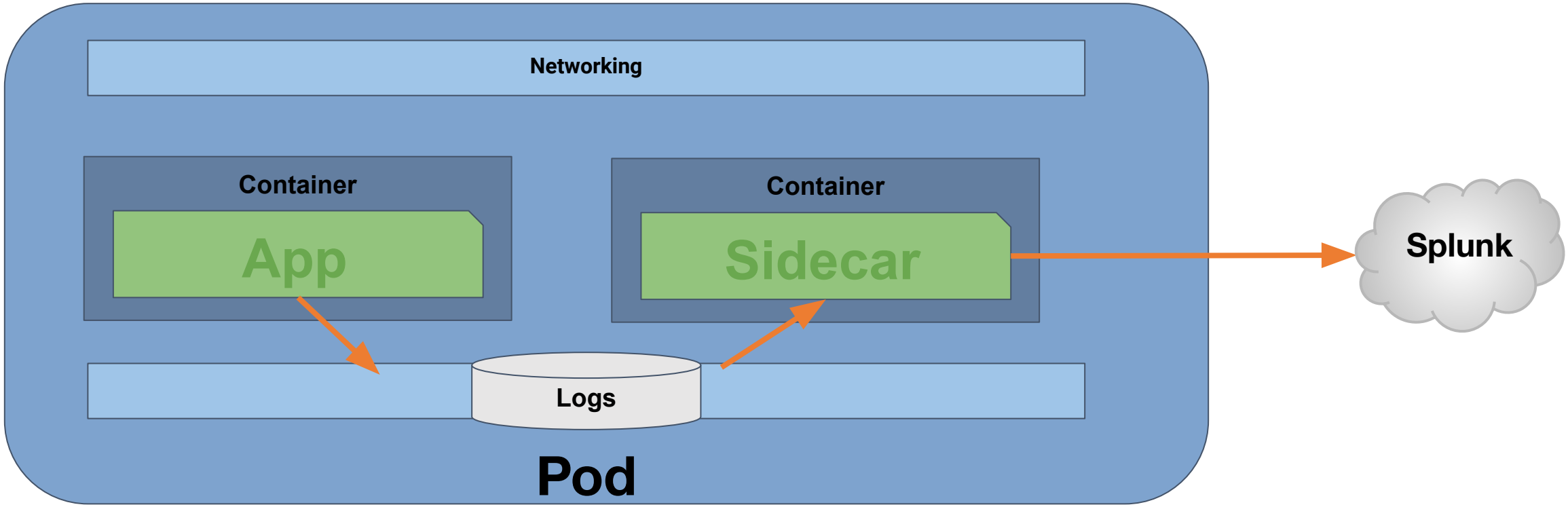
Sidecars



Sidecar Example: log aggregation



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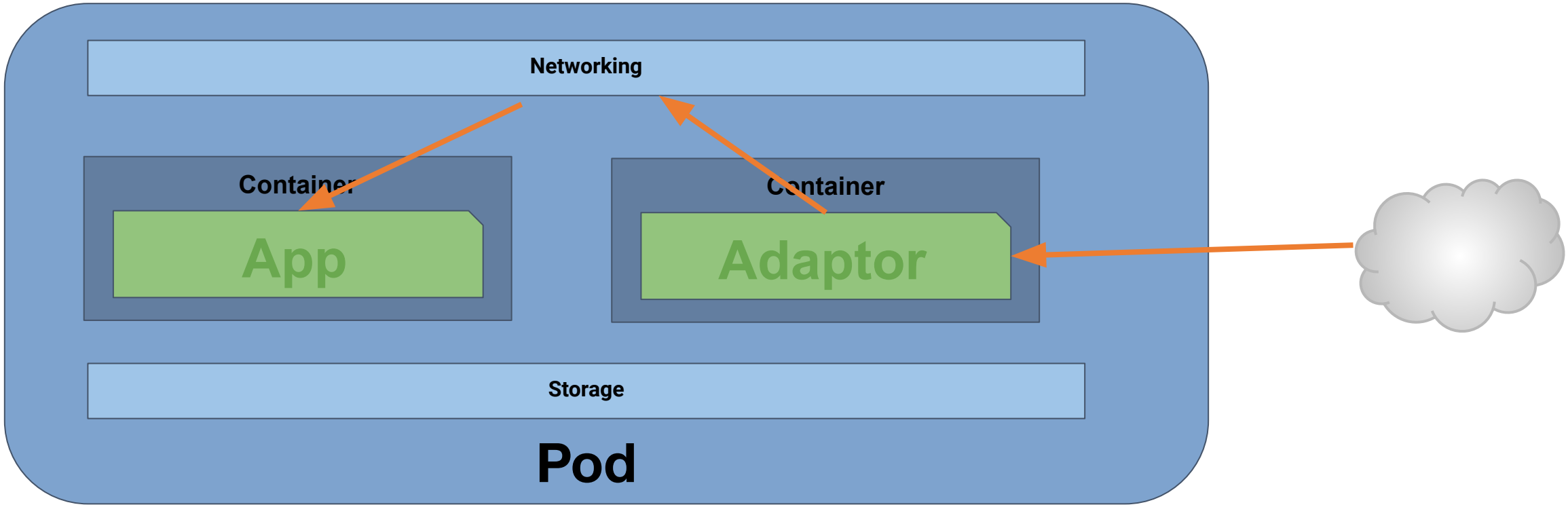
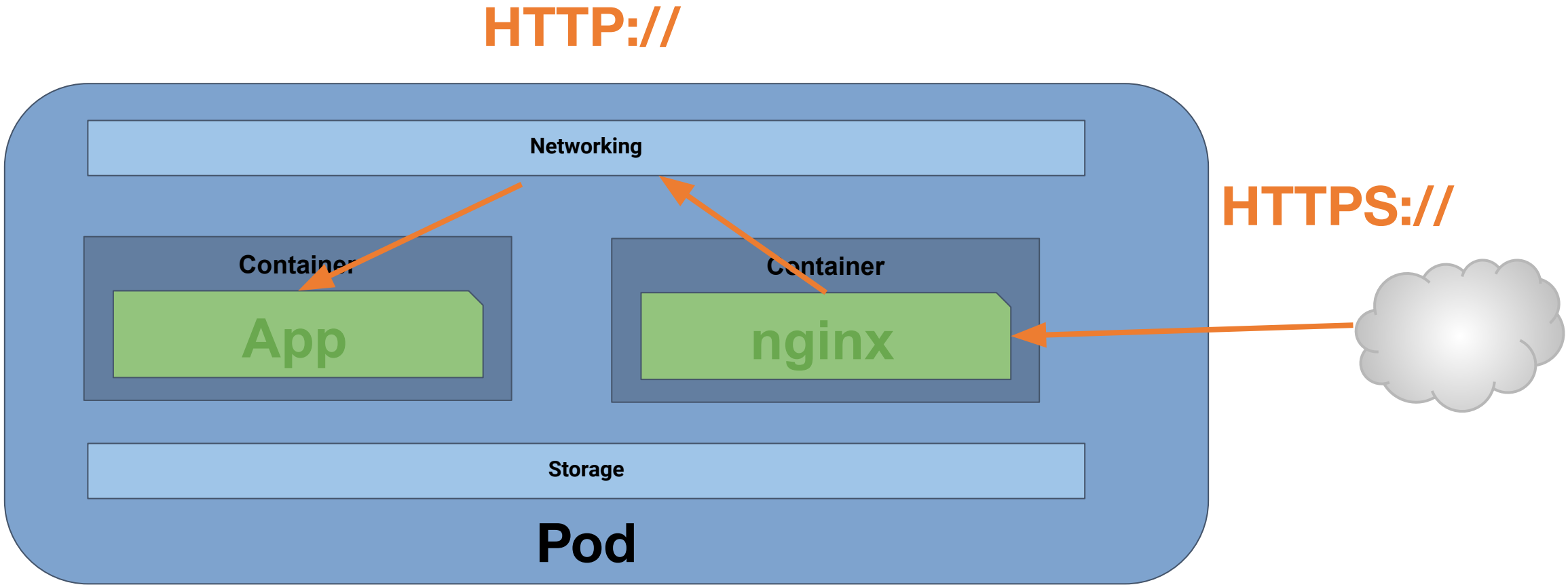
Adaptor Pattern



Adaptor Example: SSL proxy



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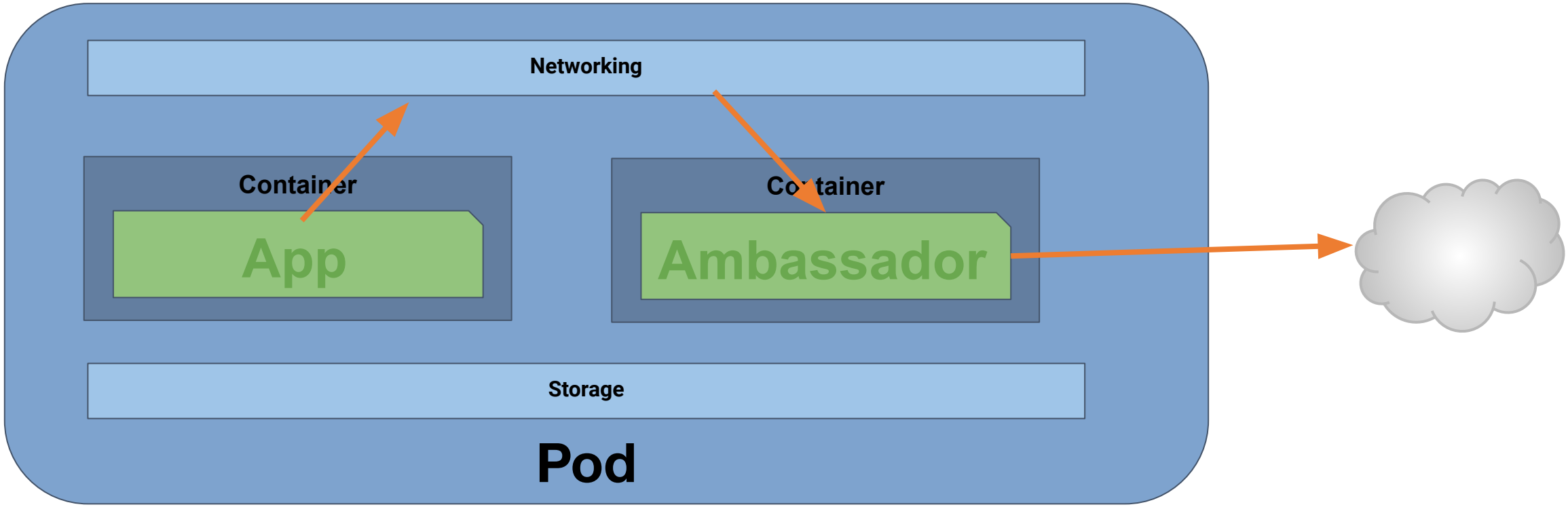
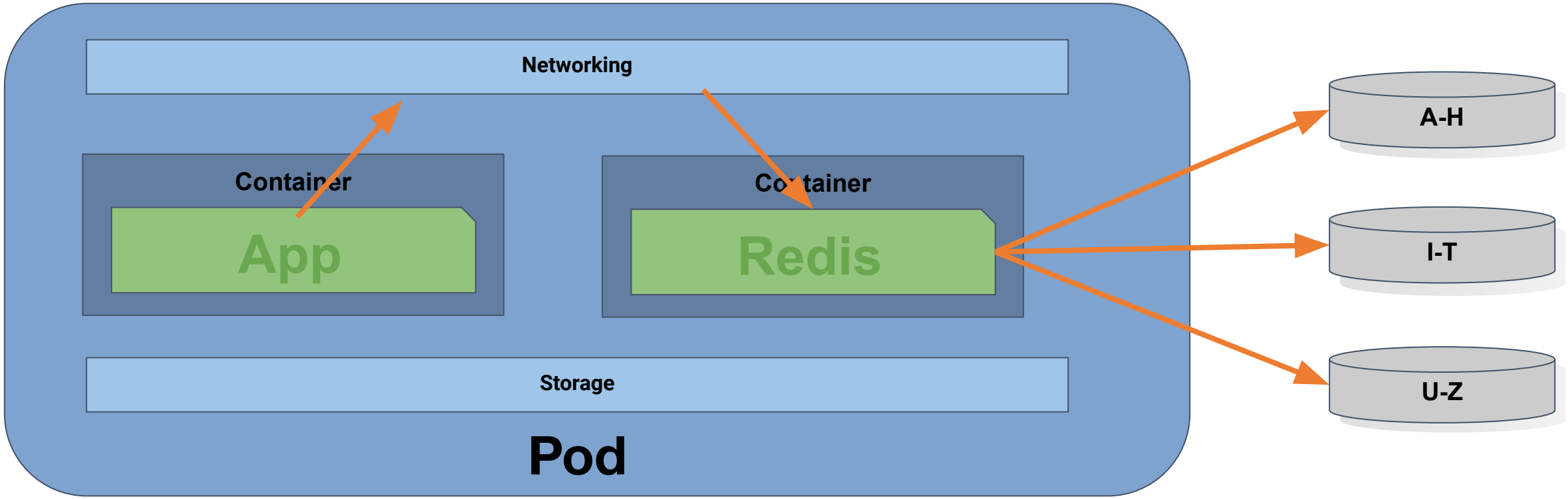
Ambassador Pattern



Ambassador Example: Redis Proxy



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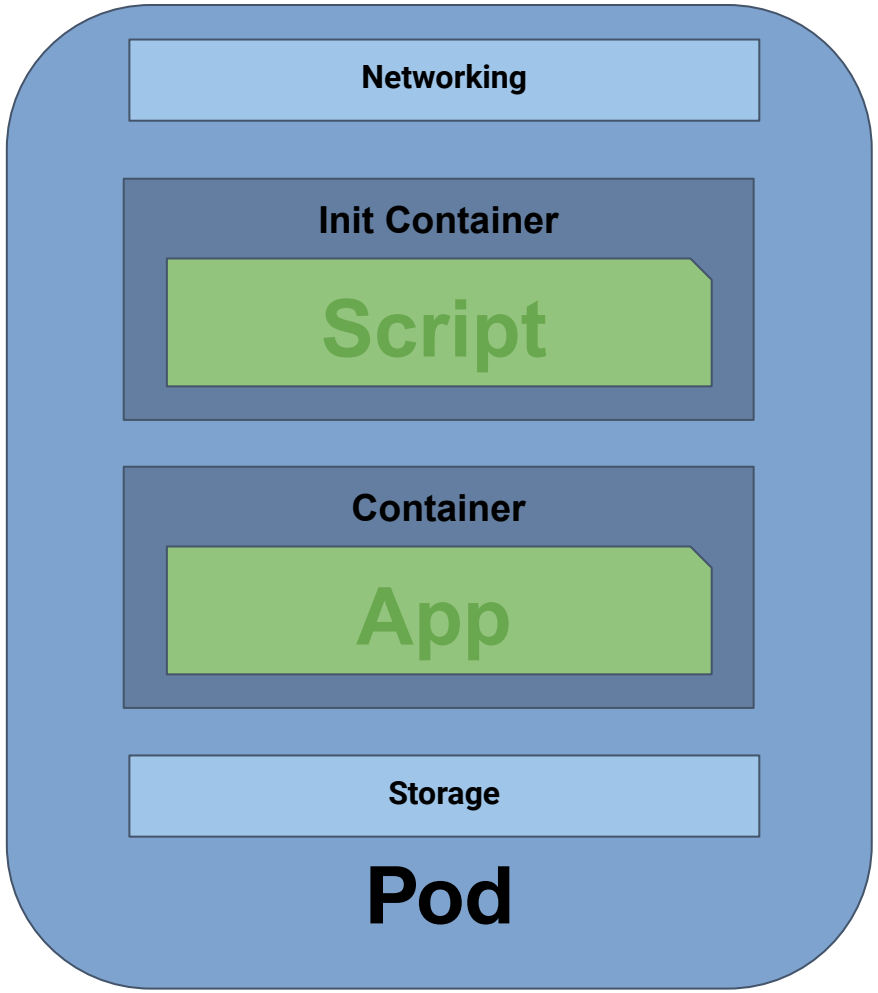
Init Container




```
apiVersion: v1
kind: Pod
metadata:
  name: myapp-pod
spec:
  containers:
  - name: myapp-container
    image: nginx
  initContainers:
  - name: init-myservice
    image: busybox
    command: ['sh', '-c', 'until
nslookup myservice; do echo waiting
for myservice; sleep 2; done;']
```

What multi-container use case is inappropriate?

1. Running the web server container and database container in the same pod so they can communicate securely

2. Running the web server and a statsd container that is sending page view metrics to my monitoring system

3. Running the web server and an nginx proxy that implements request rate-limiting of web page requests