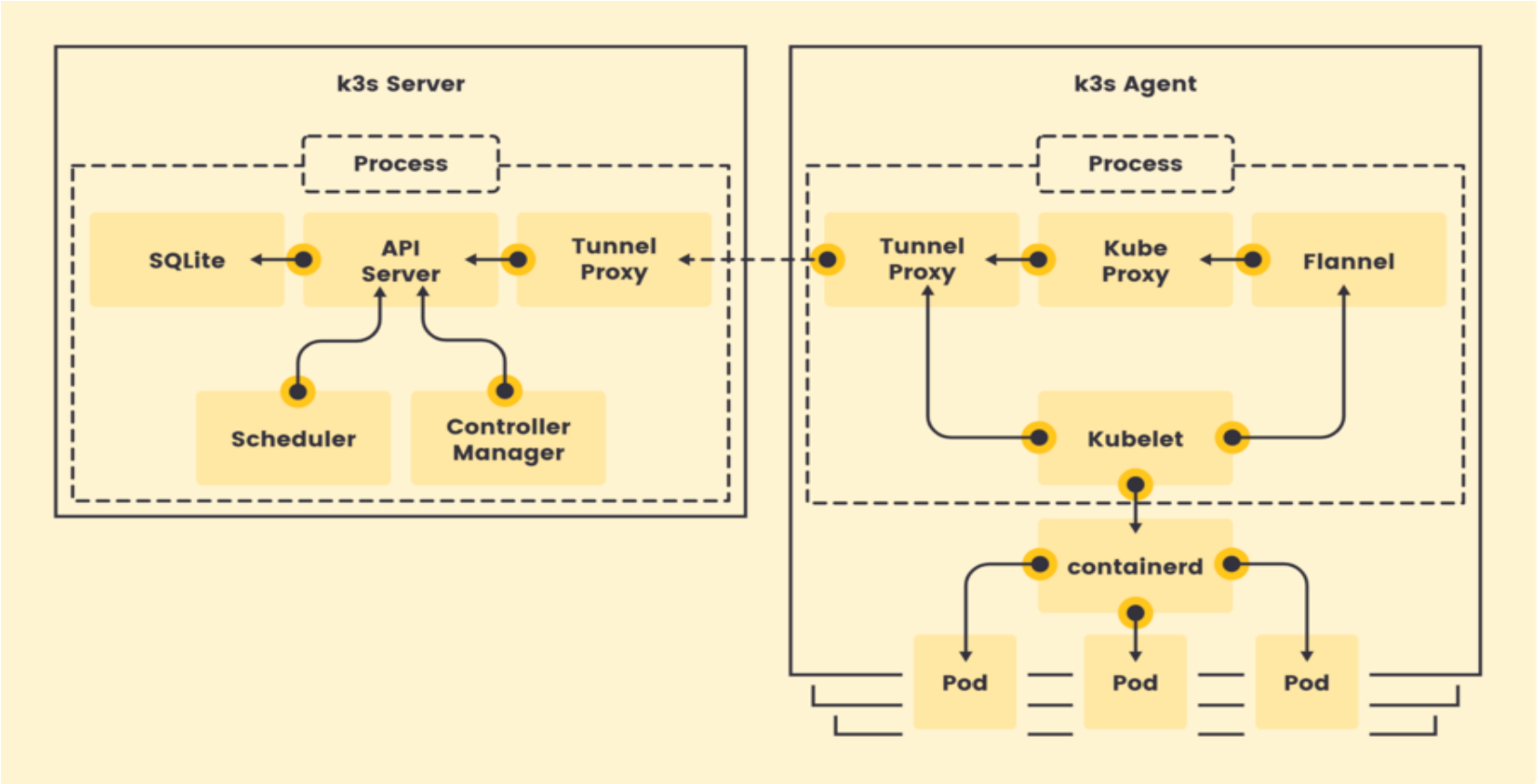
k3s – Lightweight Kubernetes

Architecture



K3s - Lightweight Kubernetes

v0.0.1 Out of the Box

- Low Memory/CPU footprint
  - < 512 MB
  - k8s components in single binary
- Multi-Arch distribution
  - x86_64
  - Arm7
  - Arm8
- Ingress controller
- Remove dependency on docker
- Remove dependency on etcd
- Remove 3M lines
  - In-tree storage providers
  - In-tree cloud providers
  - Alpha features
  - Legacy and non-default features

K3s GA - Lightweight Kubernetes

v1.0.0 Out of the Box

- Low Memory/CPU footprint
  - < 512 MB
  - k8s components in single binary
- Multi-Arch distribution
  - x86_64
  - Arm7
  - Arm8
- Ingress controller
- Helm Controller
- Service Load Balancer
- Local Storage Provider
- Expanded data store options
  - Embedded SQLite
  - External DB
    - MySQL
    - PostgresQL
  - Embedded Dqlite
- Air-gap installation

K3s HA Requirements

- Unique Hostnames
  - --node-name
  - $K3S_NODE_NAME
- Linux (tested on)
  - Ubuntu 16.04 (amd64)
  - Ubuntu 18.04 (amd64)
  - Raspbian Buster (armhf)

K3s HA Requirements

(Continued)

- Hardware
  - RAM: 512MB Minimum
  - CPU: 1 Minimum
  - Disks – SSD recommended
- Networking
  - 6443 (api server)
  - 8472 (flannel)
  - 10250 (metrics-api)

K3s HA – Separate Masters

Master nodes have data plane and control plane. Workers are independent.