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# Learning Kubernetes by Chaos

## Breaking a Kubernetes Cluster to Understand the Components



**Ricardo Katz**

VMware



**Anderson Duboc**

Google Cloud

# Learning Kubernetes by Chaos

Breaking a Kubernetes Cluster to Understand the Components





# What is Kubernetes?





**API Server**

**Kube-proxy**

**CRI**

**CNI**

**ETCD**

**CoreDNS**

**Kubelet**

**Scheduler**

**Metrics Server**

**CSI**

**Controller  
Manager**

**Ingress Controller**



Ooops, we forgot something...and the  
cluster is broken now







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Let's see under the hood



# Part 1 - Control Plane

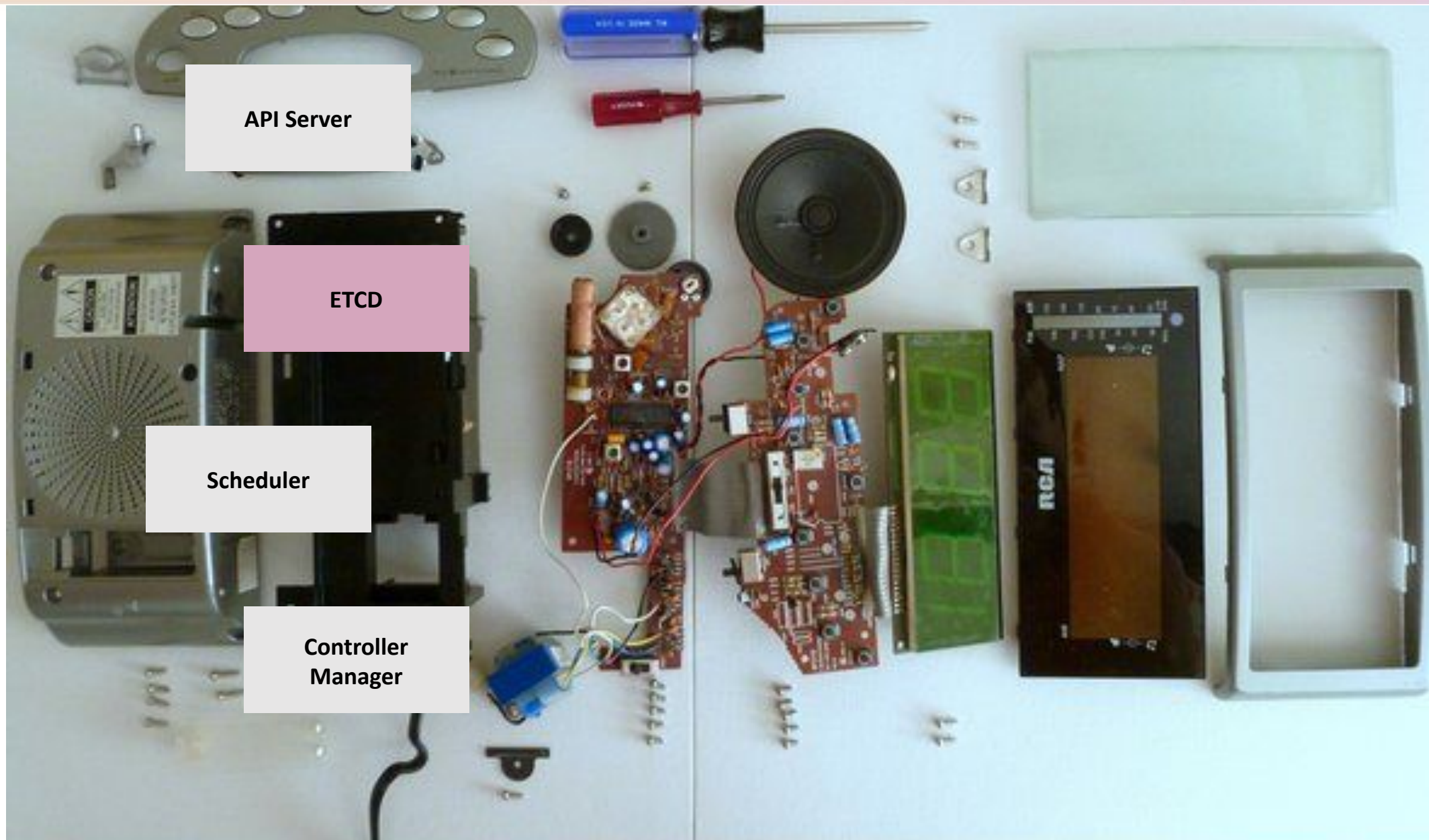


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API Server

ETCD

Scheduler

Controller  
Manager

# Part 2 - Networking



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API Server

Kube-proxy

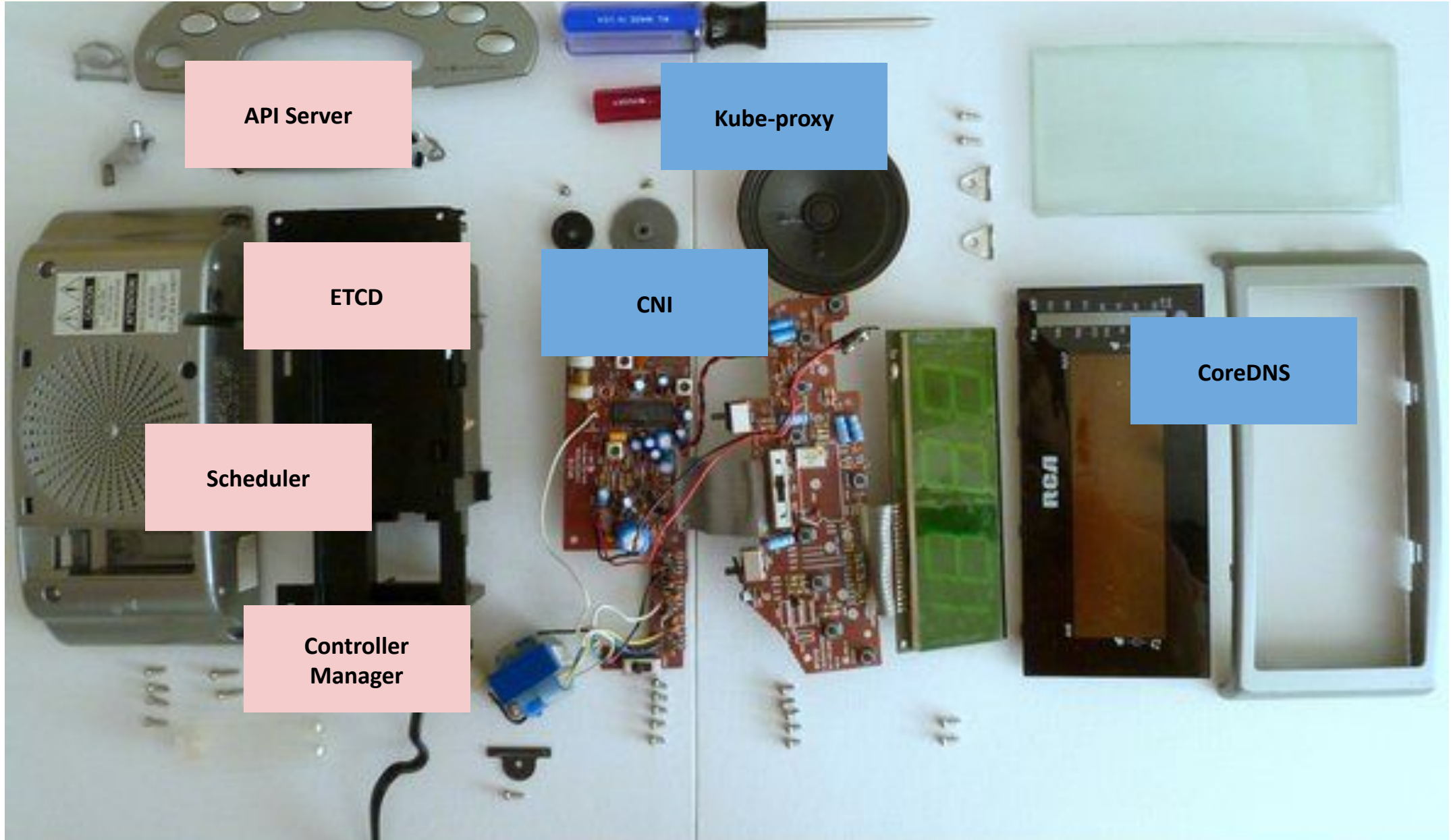
ETCD

CNI

Scheduler

CoreDNS

Controller  
Manager





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# What we didn't covered

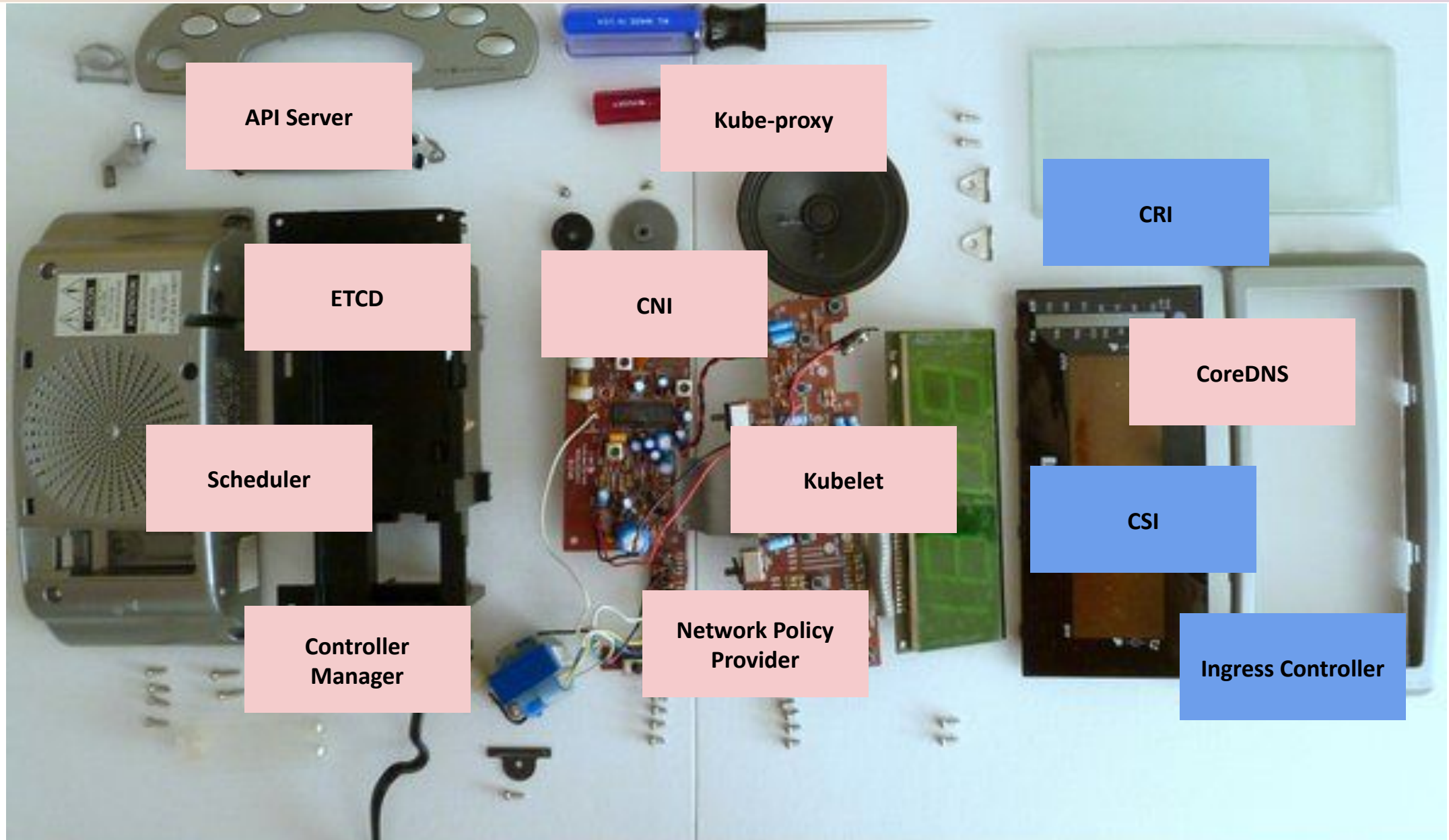


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# Kubernetes Networking Model

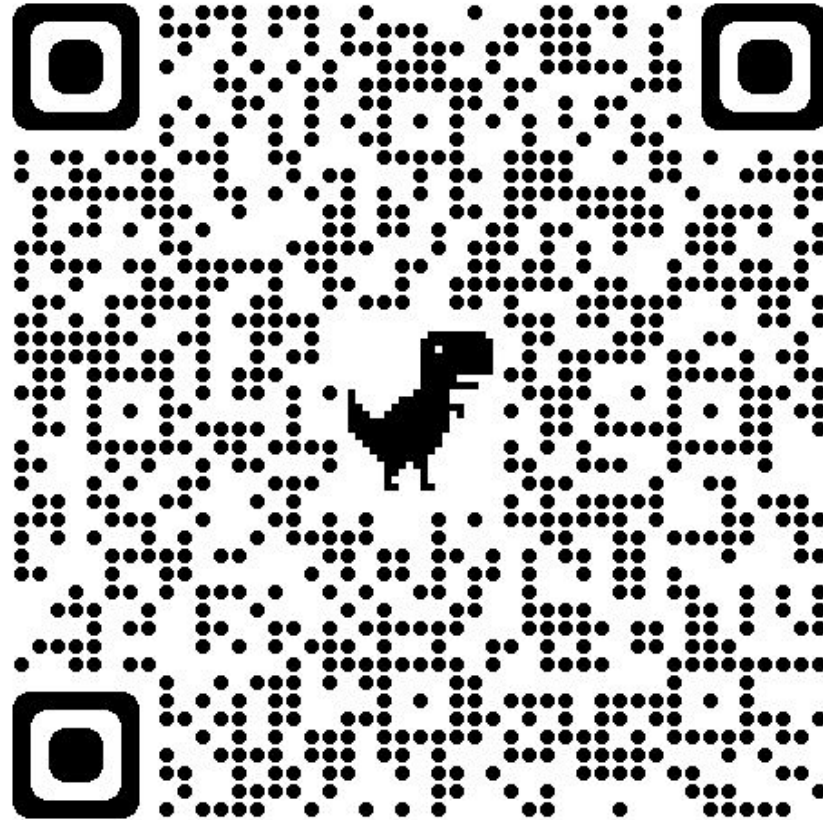


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<https://kubernetes.io/docs/concepts/services-networking/#the-kubernetes-network-model>

# Collateral



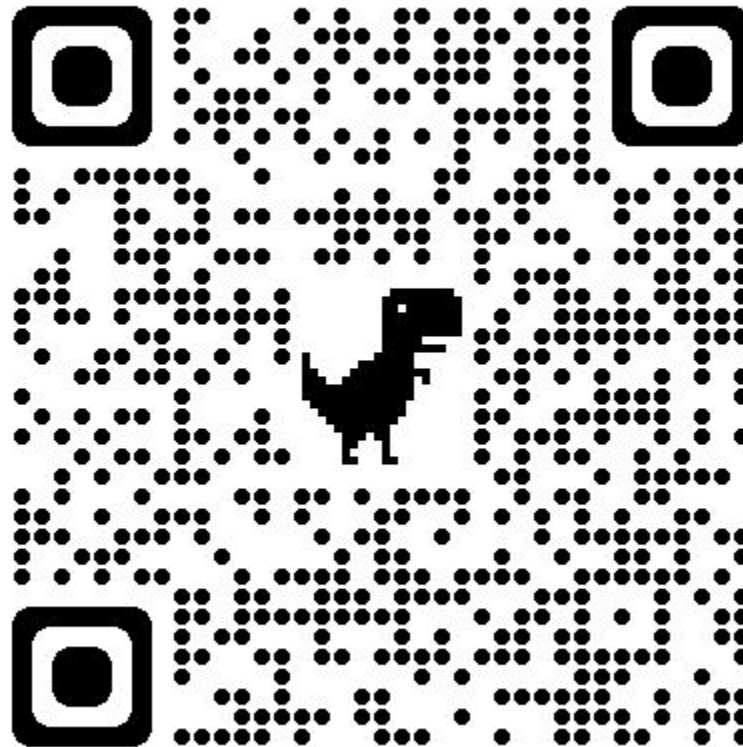
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<https://github.com/rikatz/kubeconna-2023>







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