

Kubernetes API Highlight



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API Design

I work with engineering teams during their API Design phase:

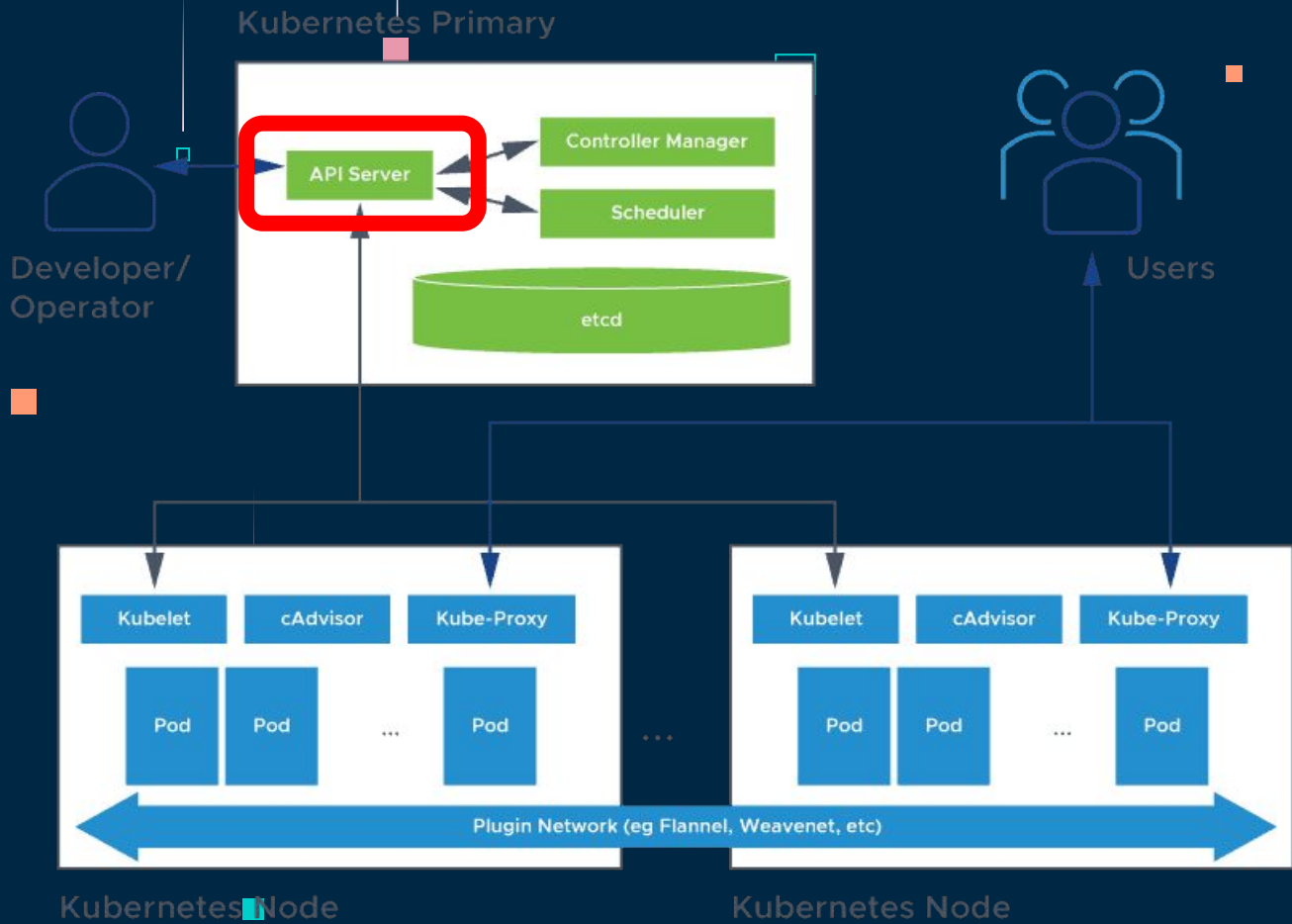
1. Why we need this API?
2. Who consumes the API?
3. Make decisions about the API



API Design System

- Identify patterns that can be reused.
- Compare with well known APIs
- Document these patterns
- Promote their re-usability
- Incrementally establish a design system that produces consistent APIs





Let's skip kubectl and other tools
that aim to make things easy



- **CORE - /api/v1**

/api/v1/pods

/api/v1/namespaces/...

/api/v1/services

- **GROUPS - /apis/{{group}}/{{versions}}**

/apis/apps/deployments/v1/

/apis/authentication.k8s.io/v1/

All these endpoints are documented in a definition available at */openapi/v2*

Let's see it in action! But first:

Authorization

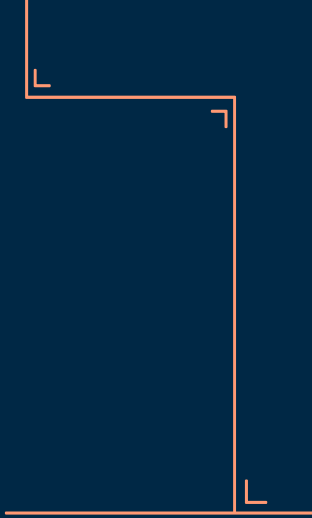
```
kind: ClusterRole
apiVersion: rbac.authorization.k8s.io/v1
metadata:
  name: postman-role
rules:
- apiGroups: ["apps", ""] # "" indicates the core API group
  resources: ["pods", "services", "deployments","deployments/scale"]
  verbs: ["get", "watch", "list", "create", "update", "delete"]
```

Inception: This will actually use the **POST**
/apis/rbac.authorization.k8s.io/v1/clusterroles endpoint

DEMO TIME!!!

A flow scaling our deployment based on external conditions (APIs)

This is not intended production



THANKS



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All resources can be found at:



<https://www.postman.com/gkoroscapidesign/workspace/athens-kubernetes-meetup-kubernetes-api-highlight>

CREDITS: This presentation template was created by [Slidesgo](#), including icons by [Flaticon](#), and infographics & images by [Freepik](#)