

Kubernetes Basics

Basic kubectl Commands

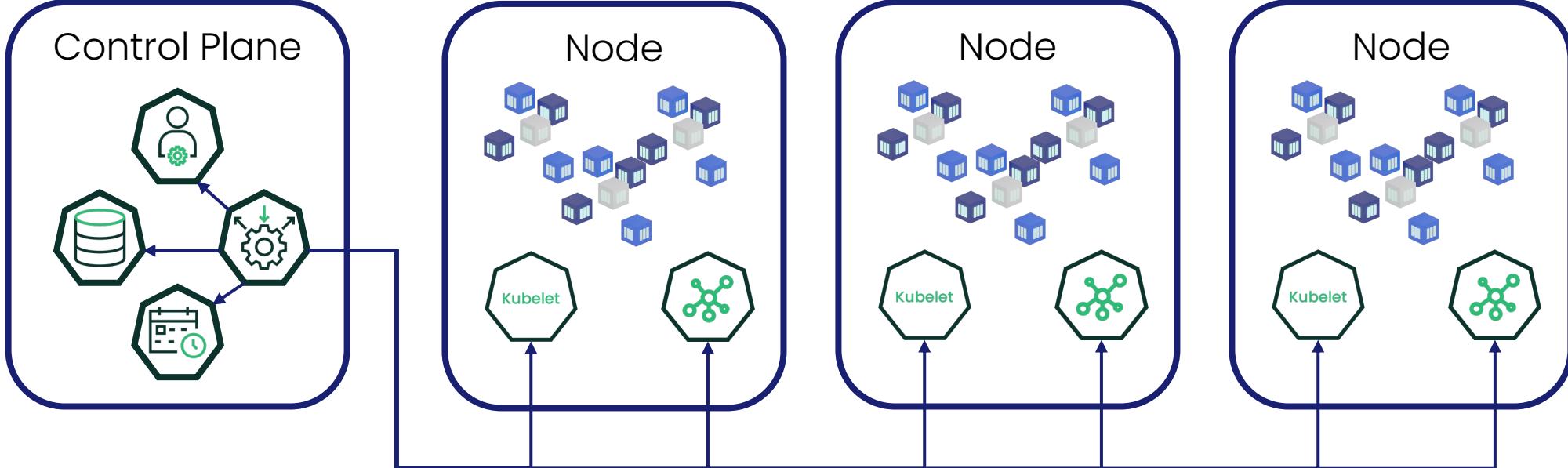
Agenda

1. Review of Kubernetes Architecture
2. What is kubectl
3. Basic Commands



Review of Kubernetes Architecture

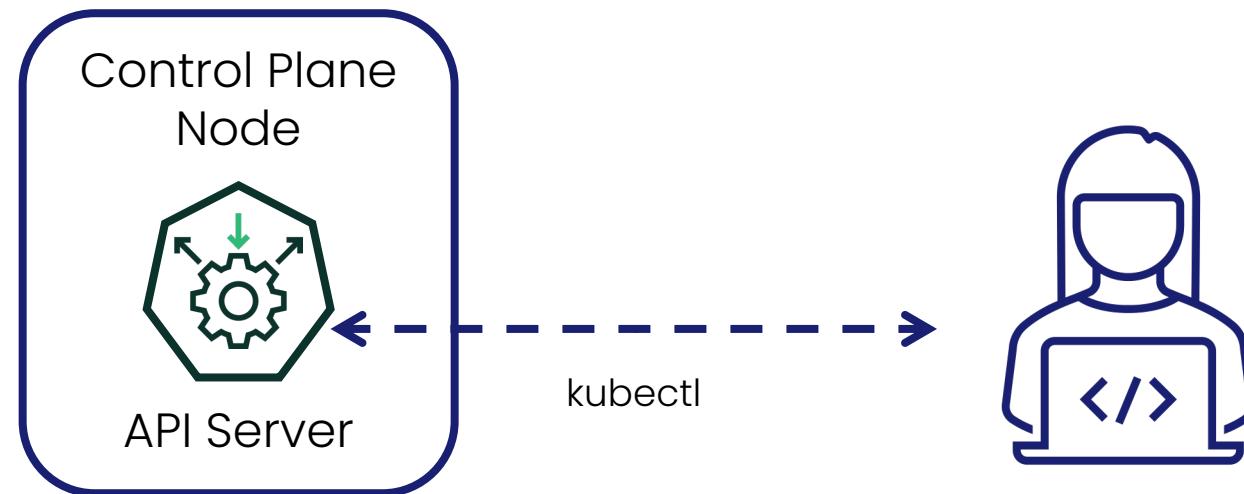
Kubernetes Cluster



What is kubectl

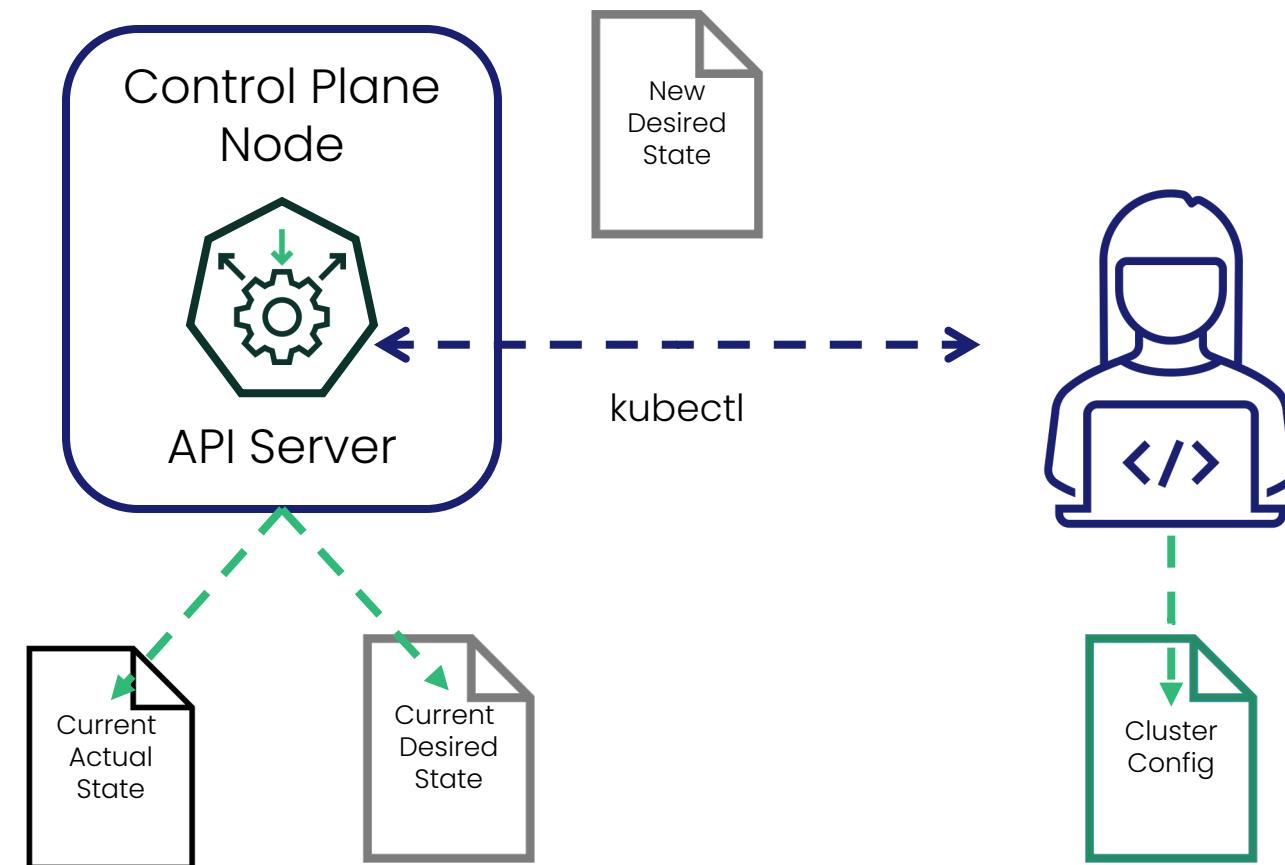
kubectl

Kubectl is the command line tool provided by Kubernetes to communicate with a clusters control plane. Using the Kubernetes API.



Communication with a Kubernetes Cluster

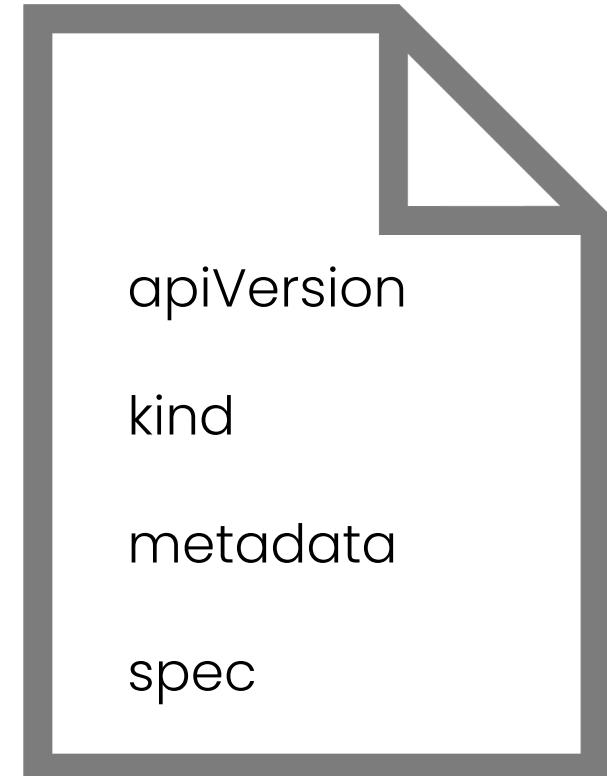
- Using kubectl CLI tool
- Client to server model
- All CRUD operations via API
- Kubernetes declarative model



Declaring State in Kubernetes with Manifests

These are YAML configuration files. Most K8s objects consist of 4 top-level required fields:

- **apiVersion** – This field defines the API version number that the Kubernetes object belongs to.
- **kind** – This field specifies the type of Kubernetes object to be created.
- **metadata** – This field contains data that describes the object being created (i.e. name).
- **spec** – This field details the container configuration.



Basic Commands

Syntax

- **command** - denotes the specific operation you want to execute
- **type** - denotes what type of resource
- **name** - is the name of the resource
- **flags** - are optional flags

kubectl uses the following syntax pattern

`kubectl [command] [type] [name] [flags]`

Basic Commands and Resources

commands

- create
- delete
- describe
- get
- apply
- version

resources

- configmaps
- namespaces
- nodes
- pods
- secretees
- services
- deployments
- replicasetes
- ingresses



Thank you

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For more information, contact SUSE at:

+1 800 796 3700 (U.S./Canada)

Frankenstrasse 146

90461 Nürnberg

www.suse.com



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