Kubernetes

Version Control and Revision History

	Name	Date
Prepared By	Janarthanan Selvaraj	20-JUL-2022
Reviewed By	Mahesh Rajput	12-Aug-2022
Approved By	Name	DD-MMM-YYYY

Version No.	Date	Affected Sections	Highlights
1.0	12-Aug-2022	All	

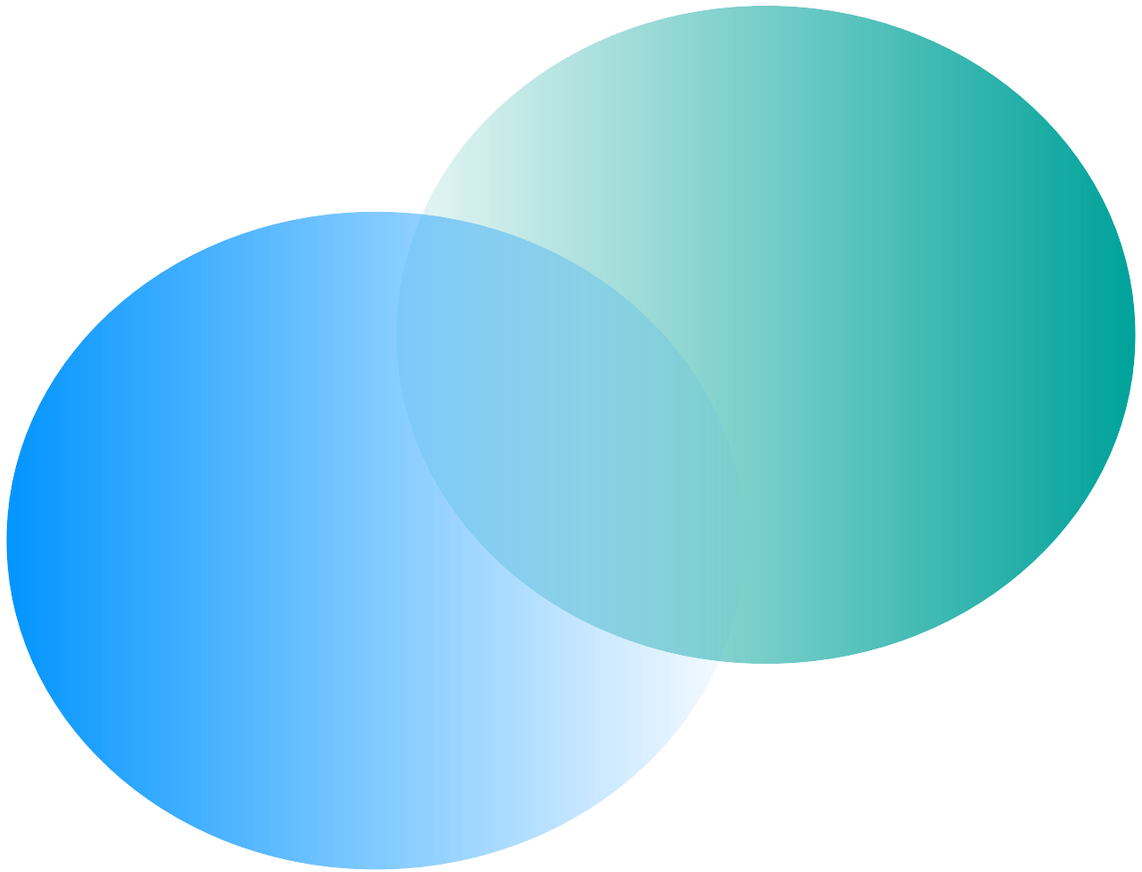
Kubernetes Introduction

Kubernetes Architecture

Kubectl Commands

Kubernetes Services

01 Kubernetes Introduction

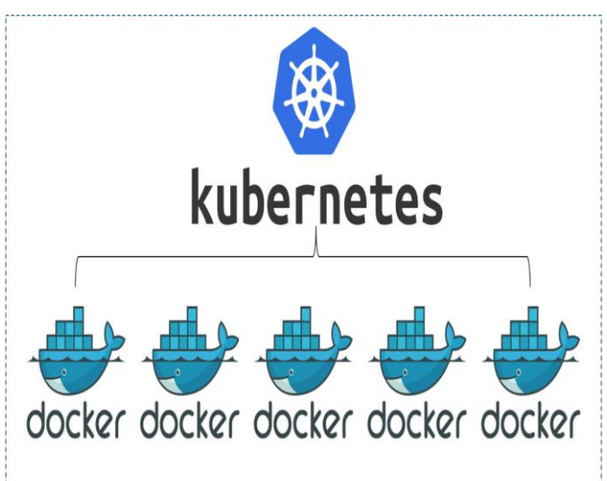


Kubernetes

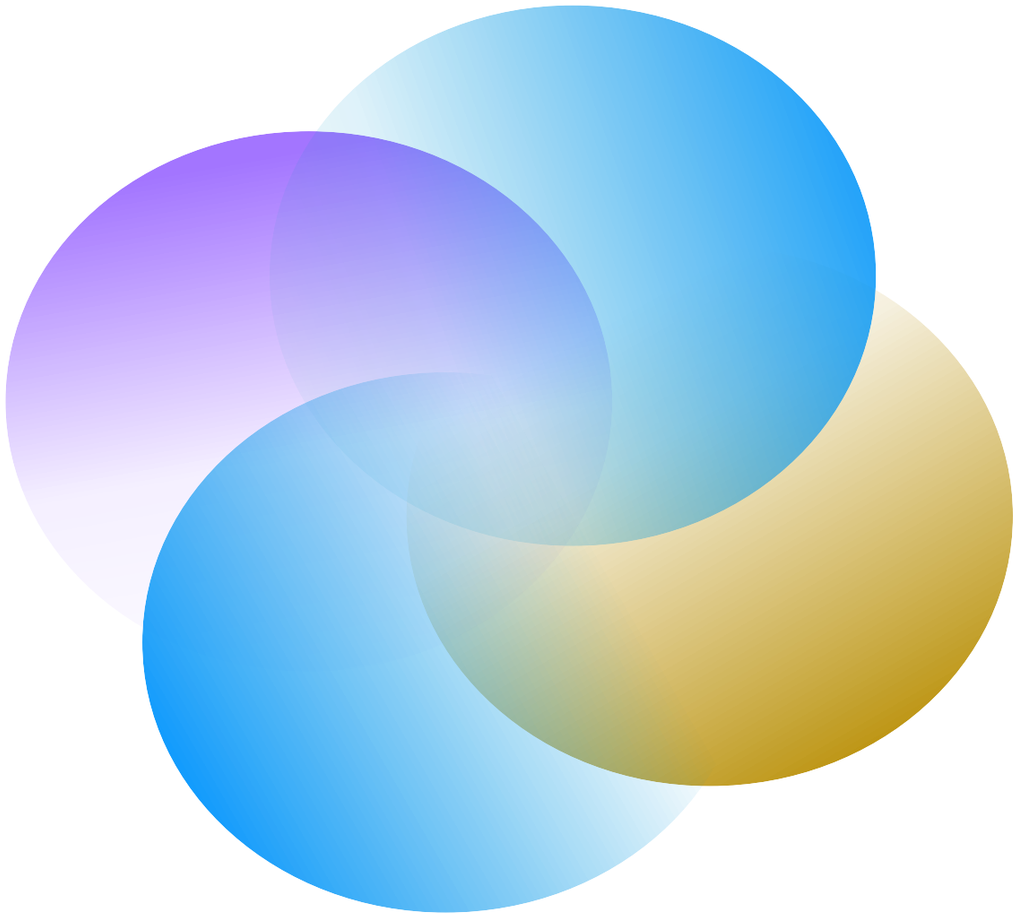
What is Kubernetes?

- Kubernetes is an open-source Container Management tool which automates container deployment, container (de)scaling & container load balancing.
- Written on Golang, it has a huge community because it was first developed by Google & later donated to **CNCF**

- Purpose of Kubernetes is to host the applications in the form of containers in automated fashion so that you can deploy as many instances of application and easily enable the communication between different services within the application.



02 Kubernetes Architecture



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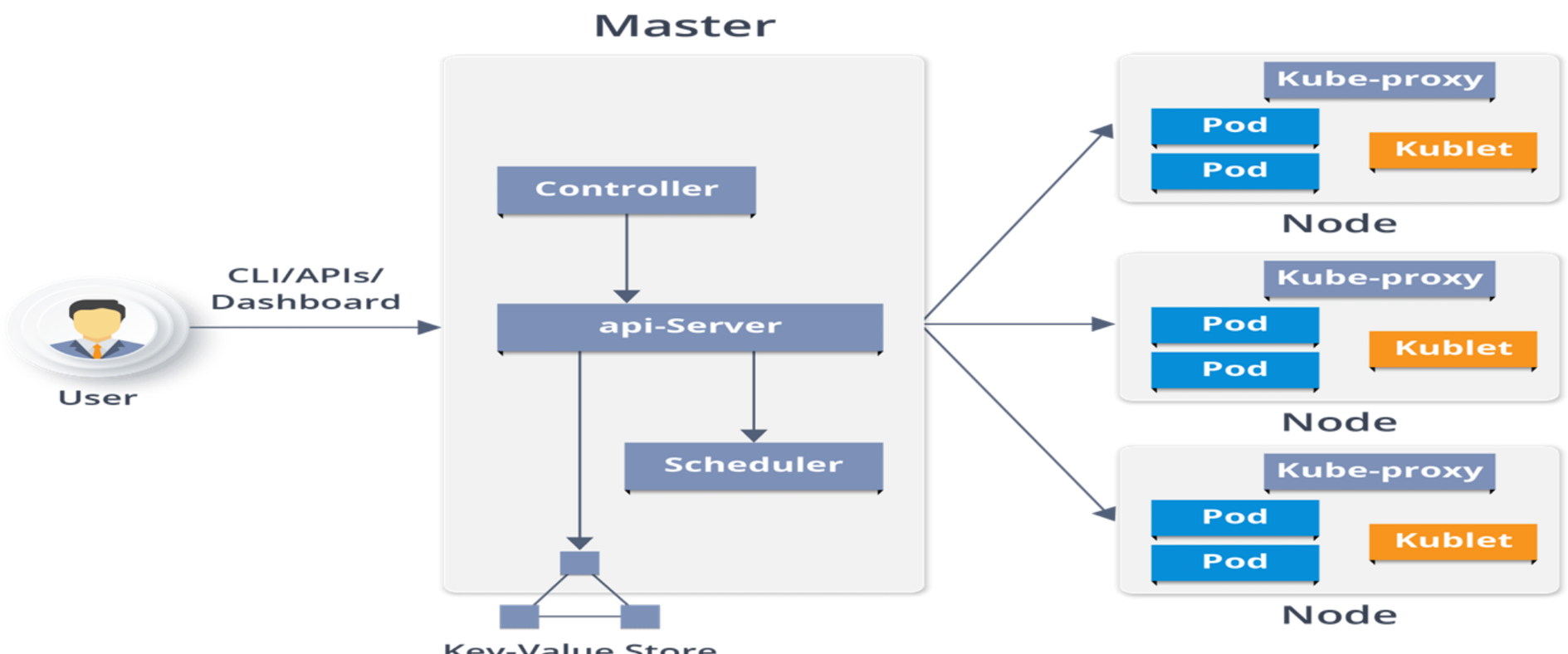
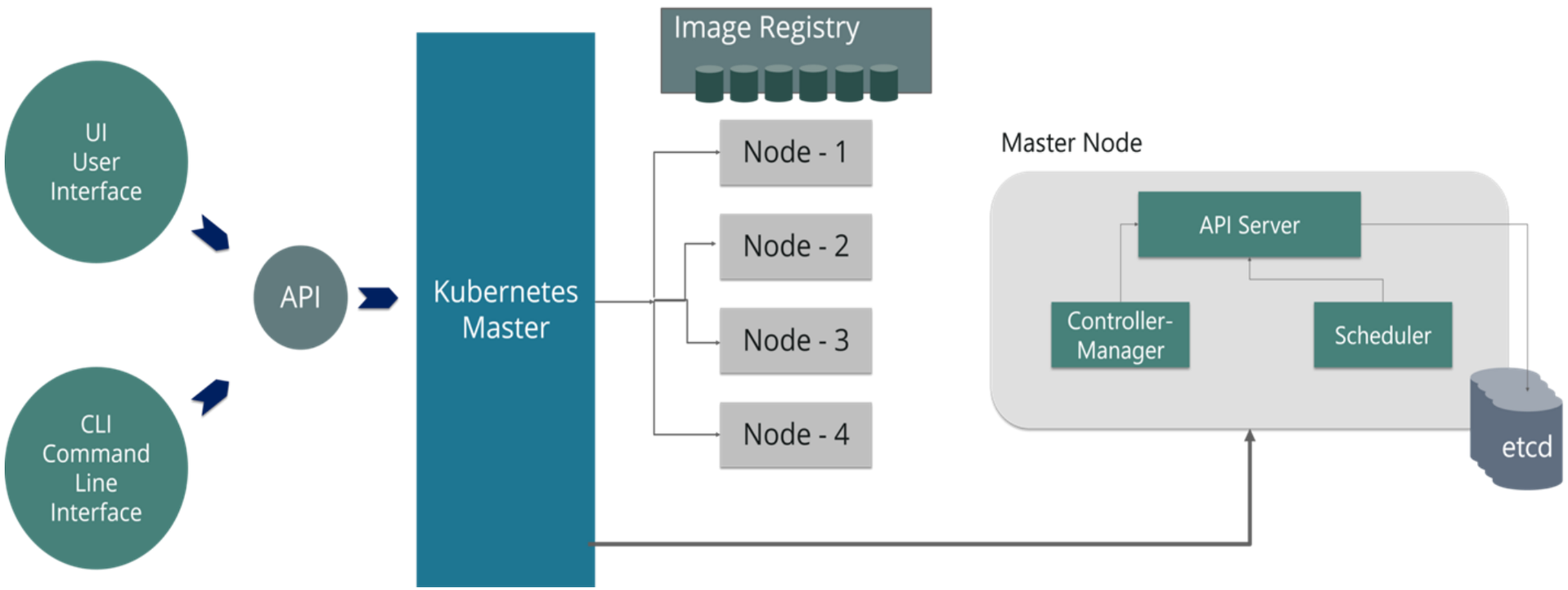
Kubernetes Architecture



Kubernetes

Master Node



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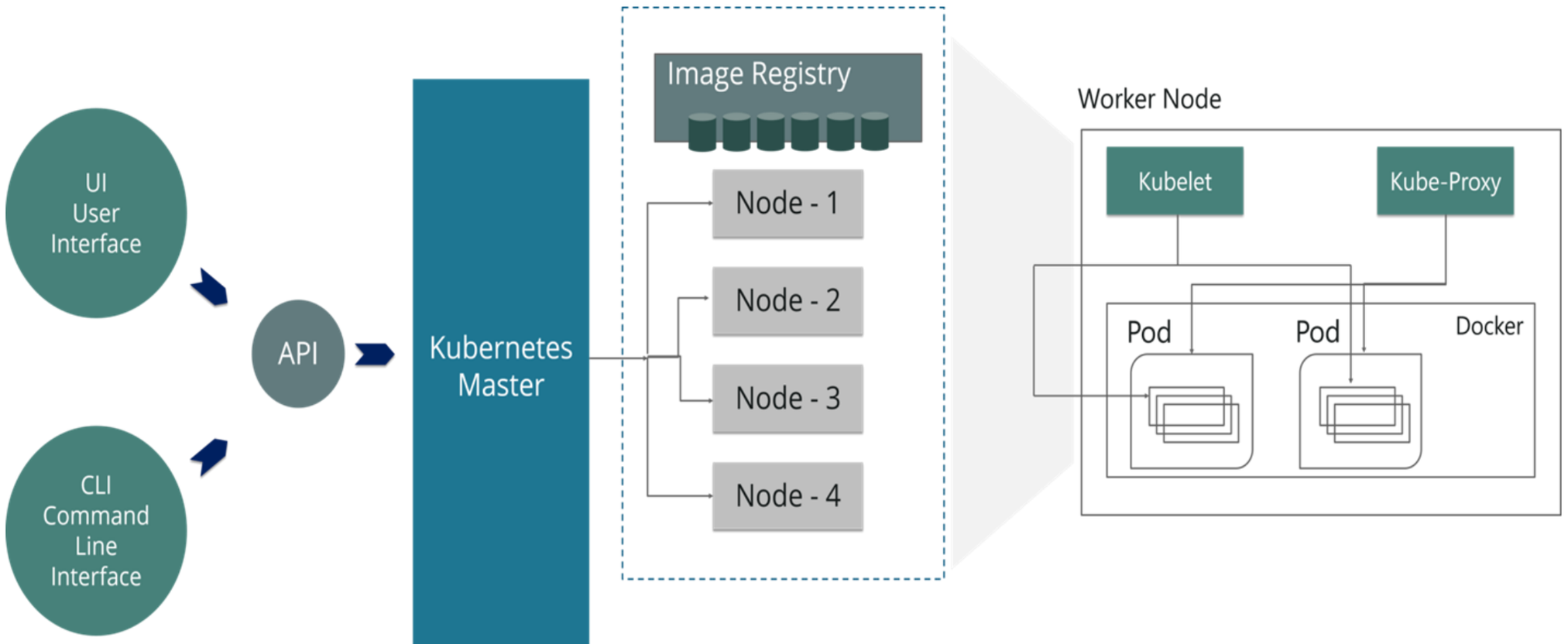
Worker Node



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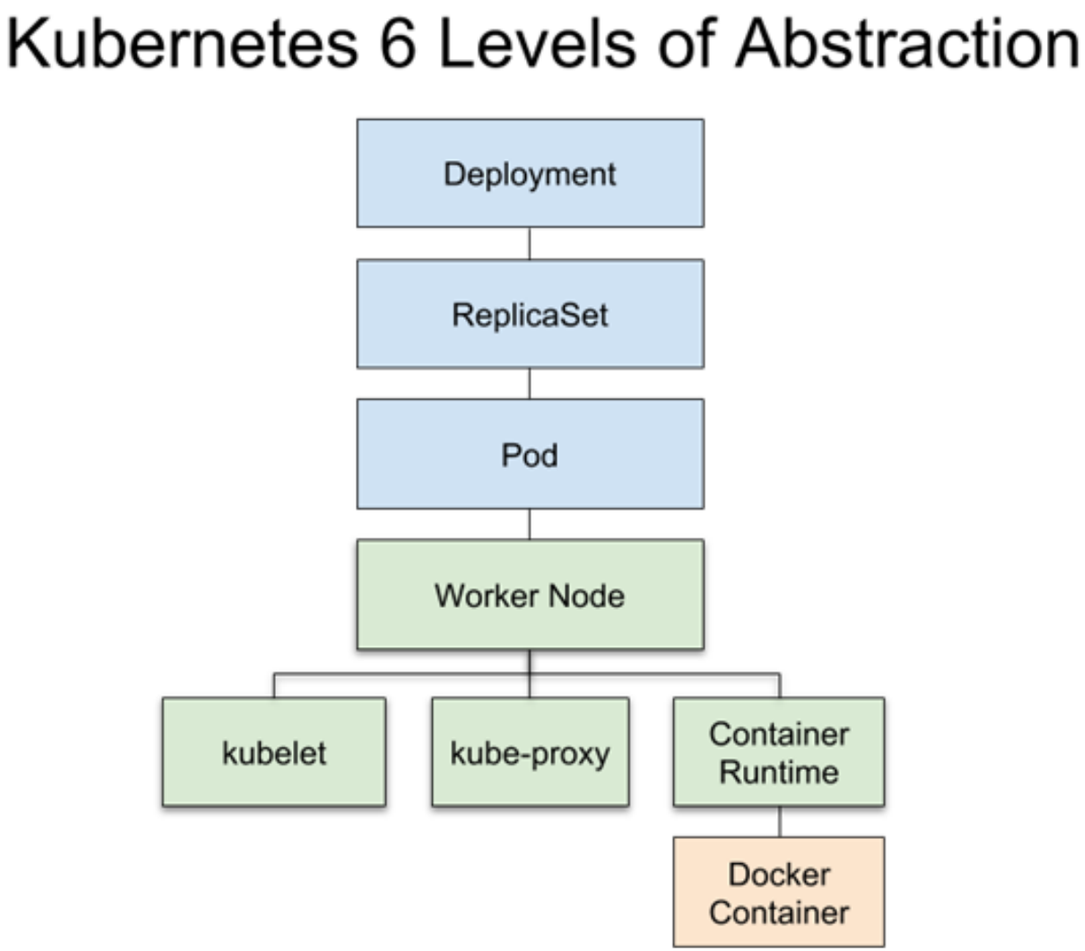
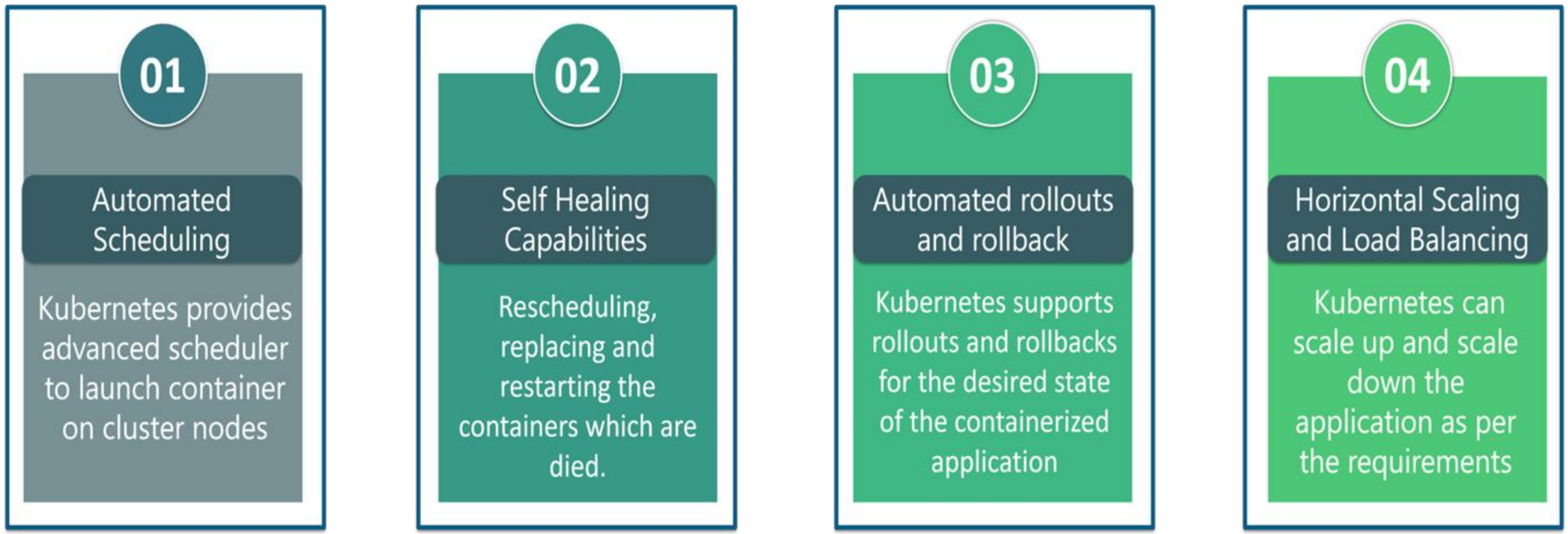
Levels of Abstraction



Kubernetes
Features of Kubernetes



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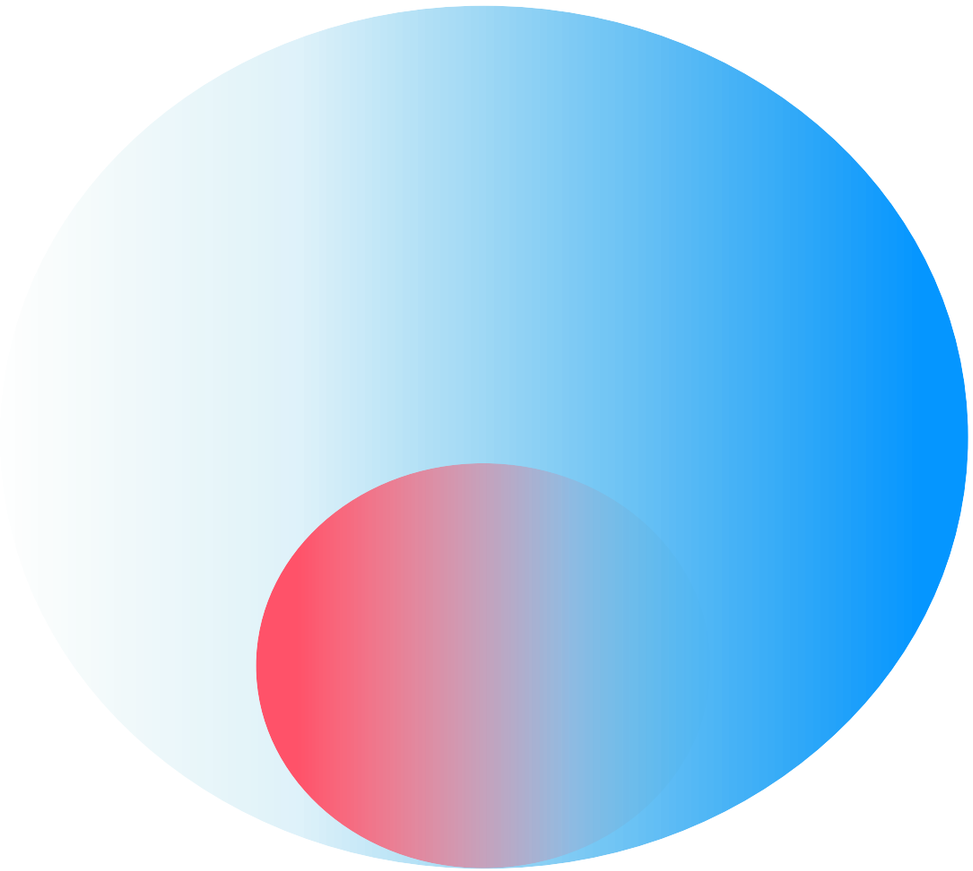
03 Kubectl Commands



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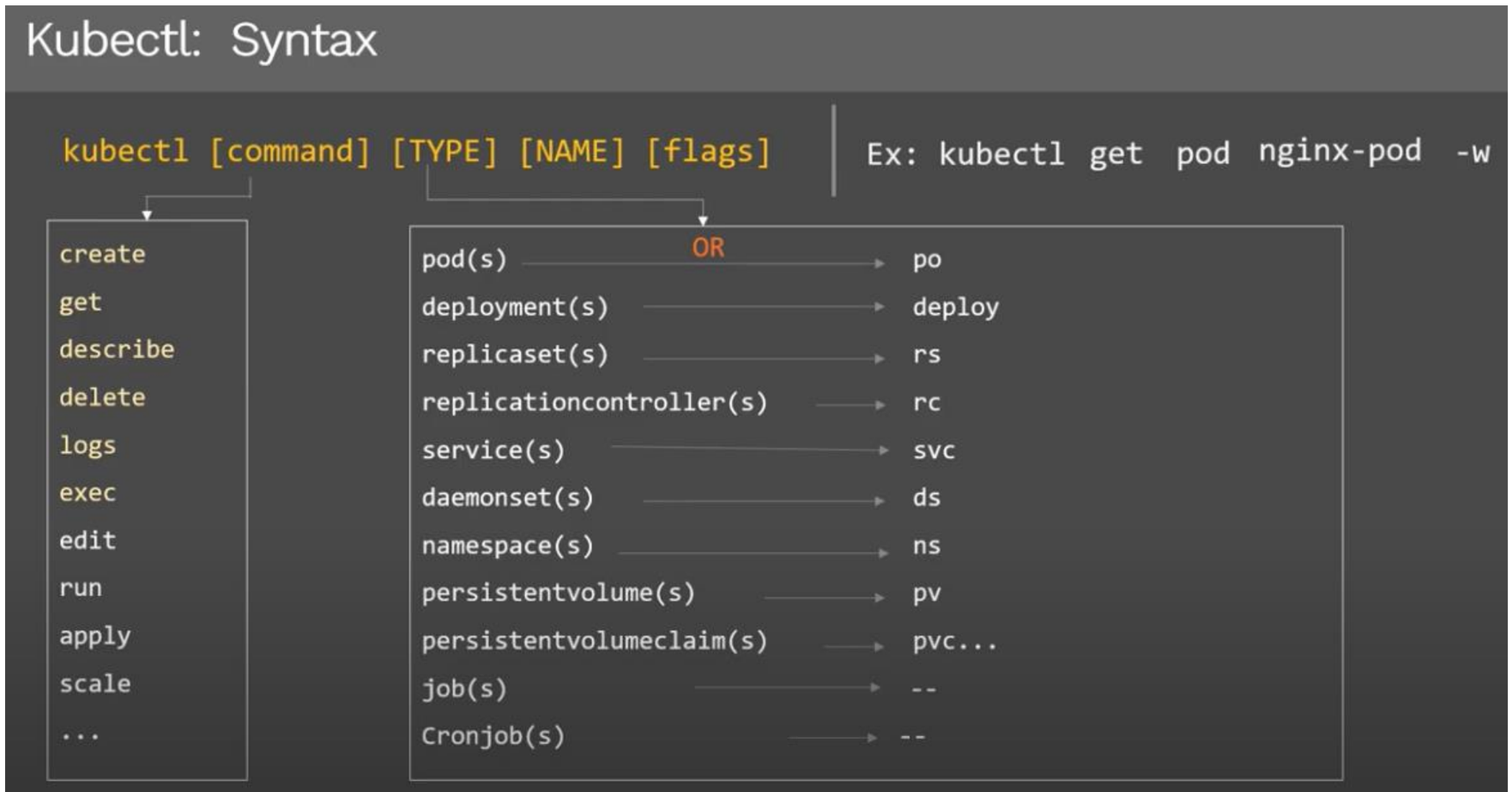
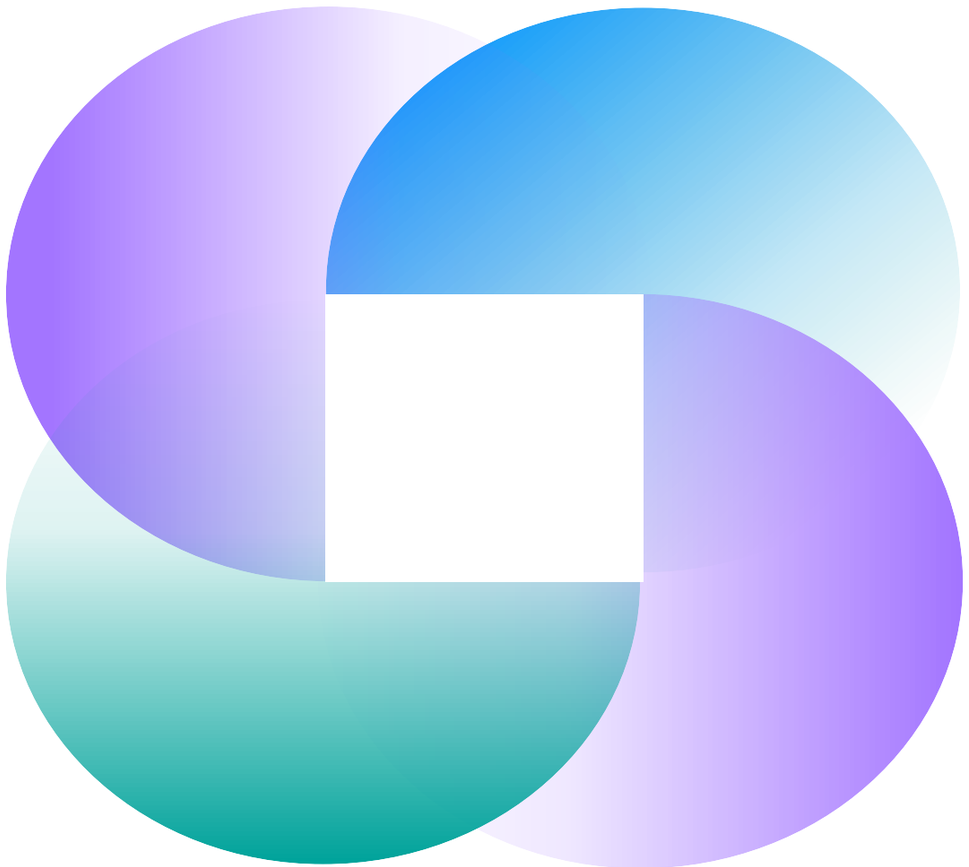
Kubectl Commands



04 Kubernetes Services



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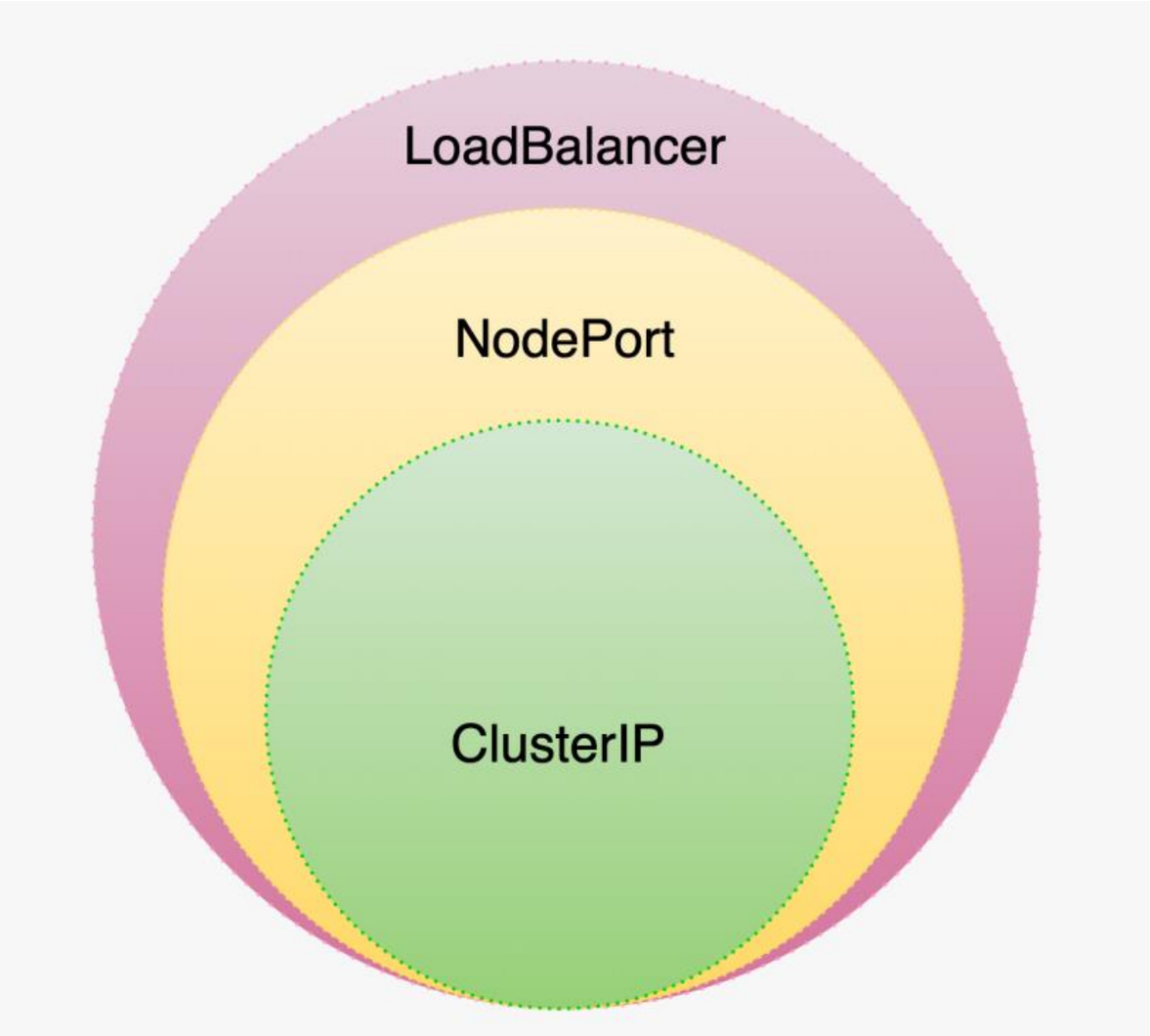
Kubernetes Services



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Kubernetes Services

- Cluster IP – Exposes the service on an internal IP in the cluster. This type makes the service only reachable from within the cluster.

- It is the default service

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Kubernetes Services

- Node Port – Exposes the service on the same port of each selected Node in the cluster.
- Makes a service accessible from outside the cluster <NodeIP>:<NodePort>
- Superset of ClusterIP.

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Kubernetes Services

- Load Balancer– creates an external load balancer in the current cloud and assigns a external IP to the service.
- Superset of NodePort.

Thank You