

# Kubernetes Deployments

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- **The theory of Deployments**
- **Create a new Deployment**
- **Update a Deployment**
  - Rolling update and a rollback
- **Recap**



# Kubernetes Deployments

## The Theory

# Kubernetes Deployments

## The Theory

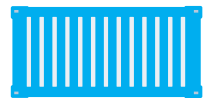
Updates &  
Rollbacks

### Deployment

*Updates and rollbacks...*

*Scalability, reliability, desired state...*

Pod



more  
pods

.....



# Kubernetes Deployments

## The Theory

Updates &  
Rollbacks

### Deployment

*Updates and rollbacks...*

*Scalability, reliability, desired state...*

Pod



more  
pods

.....



# Kubernetes Deployments

## The Theory

Updates &  
Rollbacks

```
$ kubectl rolling-update -f updated-rc.yml ...
```

Replication Controller



Replication Controller v1.4

*With updated pods/app*



# Kubernetes Deployments

## The Theory

Updates &  
Rollbacks

```
$ kubectl rolling-update -f updated-rc.yml ...
```

Replication Controller

Replication Controller v1.4

*With updated pods/app*

Pod



Pod



Pod

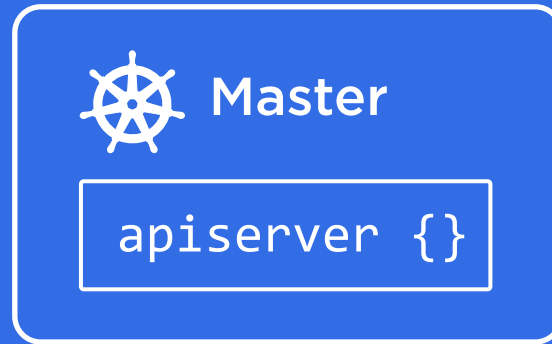


# Kubernetes Deployments

## The Theory

Updates &  
Rollbacks

```
apiVersion:  
extensions/v1beta1  
kind: Deployment  
metadata:  
  name: hello-deploy  
spec:  
  replicas: 10  
  ...
```



Deployed  
to cluster

Replica Set

(Revision 1)

Pod



Pod



Pod



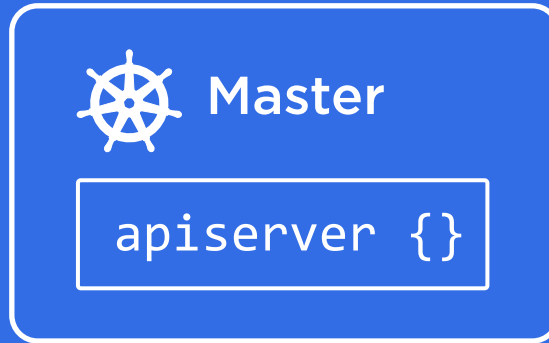


# Kubernetes Deployments

## The Theory

Updates &  
Rollbacks

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Deployed  
to cluster

Replica Set

(Revision 1)

Pod



Pod



Pod



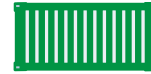
Replica Set

(Revision 2)

Pod



Pod



Pod

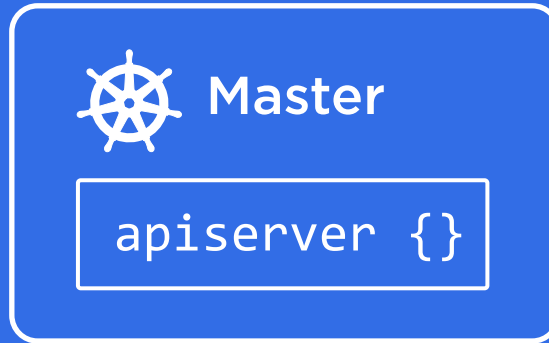


# Kubernetes Deployments

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Updates &  
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Deployed  
to cluster

Replica Set

(Revision 1)

Pod



Pod



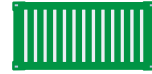
Pod



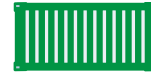
Replica Set

(Revision 2)

Pod



Pod



Pod

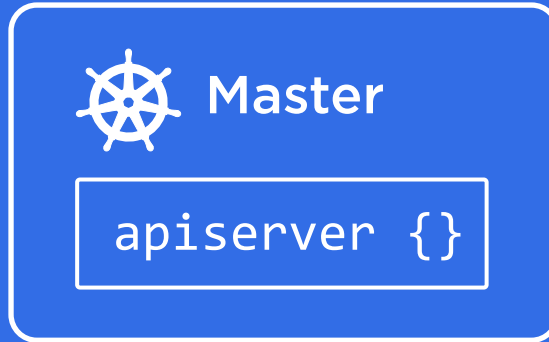


# Kubernetes Deployments

## The Theory

Updates &  
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Deployed  
to cluster

Replica Set

(Revision 1)

Pod



Pod



Pod



Replica Set

(Revision 2)



# Coming Up....

## Creating our first Deployment



# Kubernetes Deployments Summary

**Deployments are the future!**

Updates & Rollbacks

```
$ kubectl run ...  
(iterative)
```



**Be Declarative!**

```
$ kubectl create -f <manifest>
```



Check in to source control



Make changes to **same** file



```
Apply change with  
$ kubectl apply ...
```



Coming up...

What Next!!!