

Kubernetes

kubernetes kube-apiserver api-server etcd api-server RESTful API api-server kubectl kubectl



kubectl <http://docs.kubernetes.org.cn/683.html>

help

kubectl kubectl

```
kubectl[flags]  
kubectl[command]
```

--help

```
# kubectl  
# kubectl controls the Kubernetes cluster manager.  
# Find more information at: https://kubernetes.io/docs/reference/kubectl/overview/  
  
Basic Commands (Regular)  
-----  
apply     Take a configuration resource from a file or from stdin  
create    Create a replication controller, service, deployment or pod and expose it as a new Kubernetes service  
edit     Set specific features in objects  
get      Get information about a resource  
patch    Set annotations for a resource  
patch   Edit a resource on the server  
edit    Edit a resource on the server  
delete   Delete resources by file name, stdin, resources and names, or by resources and label selector  
  
Replicating Commands  
-----  
rollout  Manage the rollout of a resource  
scale    Scale one or more pods in a replicaset, replicaset, or replication controller  
autoscale  Autoscale a deployment, replicaset, statefulset, or replication controller  
  
Cluster Management Commands  
-----  
certificates  Manage certificates and certificate resources.  
cluster-info  Display cluster information  
events     List recent events across the cluster  
get       Get objects from the API  
label    Mark nodes as unschedulable  
node     Manage the node object  
patch    Patch the node object  
status   Status of the node or nodes  
taint   Taint nodes with one or more keys  
  
Troubleshooting and Debugging Commands  
-----  
logs      Print the logs for a container or a pod  
exec     Execute a command in a container  
port-forward  Forward ports from a local host to a pod  
proxy   Has a proxy to the Kubernetes API server  
curl    curl -X [method] [url] --header [headers]  
auth    Detect authentication requirements for Kubernetes  
version  Print detailed version info for troubleshooting workloads and nodes  
  
Advanced Commands  
-----  
diff    Diff the live version against a would-be updated version  
apply   Apply a configuration to a resource by file and/or stdin
```

get

getresource --help kubectl kubectl resource resource pod deployment service

```
kubectl get [(-o|--output=json|yaml|wide|go-template=...|go-template-file=...|jsonpath=...|jsonpath-file=...)] (TYPE [NAME | -l label]  
| TYPE/NAME ...) [flags] [flags]
```

pod

kubectl get po pods kubectl get po -o wide podname space name space default namespace default kube-system pods

[blocked URL](#)

namespace

```
kubectl get namespace
```

[blocked URL](#)

kubectl get rckubectl get svckubectl get nodes resource

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```
-o
1kubectl get po -o yaml yamlpod
blocked URL
2kubectl get po -o json jsonpod
blocked URL
3 -o=custom-columns= ${yaml}metadata.labels.app
```

```
        kubectl get po rc-nginx-2-btv4j -o=custom-columns=LABELS:.metadata.labels.app
```

```
LABELS.metadata.labels.app
```

```
blocked URL
```

```
4
```

describe

```
describegetresourcegetresourcedescriberesourcedescribegetdescribe-oresourcedescribe resourcegetresourcepodrunningdescribe
```

```
        kubectl describe po rc-nginx-2-btv4j
```

create

```
kubectlresourceresourceyamljsonkubectl create -f filename resource [namespace
/secret/configmap/serviceaccount] resourceyaml
```

```
        getnginx podreplication controllerrc-nginx.yaml
```

```
        apiVersion: v1
kind: ReplicationController
metadata:
  name: rc-nginx-2
spec:
  replicas: 2
  template:
    metadata:
      labels:
        app: nginx-2
    spec:
      containers:
        - name: nginx-2
          image: xingwangc.docker.rg/nginx
          ports:
            - containerPort: 80
```

```
createrc-nginx.yamlReplicationController(rc)rc
```

```
        kubectl create -f rc-nginx.yaml
```

```
kubectl get rc rc-nginx-2ReplicationController kubectl get po rc-nginx-2-pod
```

replace

```
replacecreatenginxresourcelabelimageyamlreplace
```

```
labelpodlabelrclabelrcpodpodget popodcheckpodrc
```

```
kubectl replace -f rc-nginx.yaml
```

patch

```
replacekubernetespatch podlabelapp=nginx-2labelapp=nginx-3patch
```

```
kubectl patch pod rc-nginx-2-kpijt -p '{"metadata":{"labels":{"app":"nginx-3"}}}'
```

```
patchdeploymentpatchdeploymentdeploymentpods
```

```
kubectl patch deployment your-deployment -p "{\"spec\":{\"template\":{\"metadata\":{\"labels\":{\"date\":\"$(date +%s)\"}}}}}"
```

edit

```
editresourceeditcommonresourcesignificant resourceeditpod
```

```
kubectl edit po rc-nginx-btv4j
```

```
kubectl get po rc-nginx-btv4j -o yaml >> /tmp/nginx-tmp.yaml  
vim /tmp/nginx-tmp.yaml  
/*do some changes here */  
kubectl replace -f /tmp/nginx-tmp.yaml
```

delete

```
resourcelabelresource
```

```
kubectl delete -f rc-nginx.yaml  
kubectl delete po rc-nginx-btv4j  
kubectl delete po -lapp=nginx-2
```

apply

```
applypatcheditresourceapplyresourceconfigurationsource controlpushserverkubect  
l applyresourcekubernetes
```

```
applyreplaceapplyresourceapplyresourcekubectl applyresourceapplygit
```

logs

```
logspoddockerg logs tail -f -f
```

```
kubectl logs rc-nginx-2-kpiqt
```

exec

```
execdockerecshellpod-c
```

rolling-update

```
rolling-updaterolling-updaterolling-updatepodpodpodpodpodrolling-updatednameVersionlabel
```

```
kubectl rolling-update rc-nginx-2 -f rc-nginx.yaml
```

```
update
```

```
kubectl rolling-update rc-nginx-2 --rollback
```

```
rolling-update--update-period-hhelp
```

scale

```
scalenginxscale
```

```
4
```

```
kubectl scale rc rc-nginx-3 --replicas=4
```

```
2
```

```
kubectl scale rc rc-nginx-3 --replicas=2
```

autoscale

```
scale/autoscalepod autoscalercpodpodnginx1~4
```

```
kubectl autoscale rc rc-nginx-3 --min=1 --max=4
```

attach

```
attachdockeraattachdaemonlogs -fctrl-cpodpod-c containers namekube-system  
namespacenkube-dns-v9-rcfuk podskydns
```

```
kubectl attach kube-dns-v9-rcfuk -c skydns --namespace=kube-system
```

config

```
kubectl config view
```

```
$ kubectl config view
apiVersion: v1
clusters:
- cluster:
    certificate-authority-data: DATA+OMITTED
    server: https://cls-nsnhyewv.ccs.tencent-cloud.com
  name: demo
- cluster:
    insecure-skip-tls-verify: true
    server: https://9.134.191.144:18167
  name: test
contexts:
- context:
    cluster: demo
    user: "3366046505"
  name: demo
- context:
    cluster: test
    user: "100015915015"
  name: test
current-context: demo
kind: Config
preferences: {}
users:
- name: "100015915015"
  user:
    client-certificate-data: REDACTED
    client-key-data: REDACTED
- name: "3366046505"
  user:
    client-certificate-data: REDACTED
    client-key-data: REDACTED
$ |
```

```
kubectl config user-context
```

```
$ kubectl config view
apiVersion: v1
clusters:
- cluster:
    certificate-authority-data: DATA+OMITTED
    server: https://cls-nsnhyewv.ccs.tencent-cloud.com
  name: demo
- cluster:
    insecure-skip-tls-verify: true
    server: https://9.134.191.144:18167
  name: test
contexts:
- context:
    cluster: demo
    user: "3366046505"
  name: demo
- context:
    cluster: test
    user: "100015915015"
  name: test
current-context: demo
kind: Config
preferences: {}
users:
- name: "100015915015"
  user:
    client-certificate-data: REDACTED
    client-key-data: REDACTED
- name: "3366046505"
  user:
    client-certificate-data: REDACTED
    client-key-data: REDACTED
$ kubectl config use-context test
Switched to context "test".
$ |
```

