## **Kubernetes Commands**

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controlplane \$ kubectl api-resources				
NAME	SHORTNAMES	APIVERSION	NAMESPACED	KIND
bindings	SHORTIVILES	V1	true	Binding
componentstatuses	cs	v1	false	ComponentStatus
configmaps	cm	v1	true	ConfigMap
endpoints	ep	v1	true	Endpoints
events	ev	v1	true	Event
limitranges	limits	v1	true	LimitRange
namespaces	ns	v1	false	Namespace
nodes	no	v1	false	Node
persistentvolumeclaims	pvc	v1	true	PersistentVolumeClaim
persistentvolumes	pv	v1	false	PersistentVolume
pods	ро	V1	true	Pod
podtemplates		V1	true	PodTemplate
replicationcontrollers	rc	V1	true	ReplicationController
resourcequotas	quota	V1	true	ResourceQuota
secrets		V1	true	Secret
serviceaccounts	sa	V1	true	ServiceAccount
services	SVC	V1	true	Service
mutatingwebhookconfigurations		admissionregistration.k8s.io/v1	false	MutatingWebhookConfiguration
validatingwebhookconfigurations		admissionregistration.k8s.io/v1	false	ValidatingWebhookConfiguration
customresourcedefinitions	crd,crds	apiextensions.k8s.io/v1	false	CustomResourceDefinition
apiservices		apiregistration.k8s.io/v1	false	APIService
controllerrevisions		apps/v1	true	ControllerRevision
daemonsets	ds	apps/v1	true	DaemonSet
deployments	deploy	apps/v1	true	Deployment
replicasets	rs	apps/v1	true	ReplicaSet
statefulsets	sts	apps/v1	true	StatefulSet
tokenreviews		authentication.k8s.io/v1	false	TokenReview
localsubjectaccessreviews		authorization.k8s.io/v1	true	LocalSubjectAccessReview
selfsubjectaccessreviews		authorization.k8s.io/v1	false	SelfSubjectAccessReview
selfsubjectrulesreviews		authorization.k8s.io/v1	false	SelfSubjectRulesReview
subjectaccessreviews		authorization.k8s.io/v1	false	SubjectAccessReview
horizontalpodautoscalers	hpa	autoscaling/v2	true	HorizontalPodAutoscaler
cronjobs	cj	batch/v1	true	CronJob
jobs		batch/v1	true	Job
certificatesigningrequests	csr	certificates.k8s.io/v1	false	CertificateSigningRequest
leases		coordination.k8s.io/v1	true	Lease
bgpconfigurations		crd.projectcalico.org/v1	false	BGPConfiguration
bgppeers		crd.projectcalico.org/v1	false	BGPPeer

```
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bgpconfigurations
                                                                                                                                                  BGPConfiguration
                                                                     crd.projectcalico.org/v1
                                                                                                                               false
                                                                                                                                                  BGPPeer
BlockAffinity
                                                                     crd.projectcalico.org/v1
                                                                                                                               false
 bgppeer
blockaffinities
                                                                     crd.projectcalico.org/v1
crd.projectcalico.org/v1
                                                                                                                               false
                                                                                                                               false
                                                                                                                                                  CalicoNodeStatus
caliconodestatuses
                                                                     crd.projectcalico.org/v1
crd.projectcalico.org/v1
crd.projectcalico.org/v1
crd.projectcalico.org/v1
clusterinformations
                                                                                                                                                  ClusterInformation
felixconfigurations
                                                                                                                               false
                                                                                                                                                  FelixConfiguration
globalnetworkpolicies
                                                                                                                                                  GlobalNetworkPolicy
                                                                                                                               false
globalnetworksets
                                                                     crd.projectcalico.org/v1
crd.projectcalico.org/v1
                                                                                                                               false
false
                                                                                                                                                  GlobalNetworkSet
 hostendpoints
                                                                                                                                                  HostEndpoint
 ipamblocks
                                                                      crd.projectcalico.org/v1
                                                                                                                               false
                                                                                                                                                  IPAMBlock
ipamconfigs
ipamhandles
                                                                     crd.projectcalico.org/v1
crd.projectcalico.org/v1
                                                                                                                                                  IPAMConfig
IPAMHandle
                                                                                                                               false
 ippools
                                                                     crd.projectcalico.org/v1
                                                                                                                               false
                                                                                                                                                  IPPool
                                                                     crd.projectcalico.org/v1
 ipreservations
                                                                                                                               false
                                                                                                                                                  IPReservation
kubecontrollersconfigurations
                                                                     crd.projectcalico.org/v1
                                                                                                                                                  {\it Kube Controllers Configuration}
                                                                     crd.projectcalico.org/v1
crd.projectcalico.org/v1
networkpolicies
                                                                                                                               true
                                                                                                                                                  NetworkPolicy
                                                                                                                               true
 endpoints<u>lices</u>
                                                                     discovery.k8s.io/v1
events.k8s.io/v1
                                                                                                                               true
                                                                                                                                                  EndpointSlice
                                                  ev
 events
                                                                                                                               true
                                                                                                                                                  Event
                                                                      flowcontrol.apiserver.k8s.io/v1beta3
                                                                                                                                                  FlowSchema
                                                                                                                                                  PriorityLevelConfiguration
IngressClass
prioritylevelconfigurations ingressclasses
                                                                      flowcontrol.apiserver.k8s.io/v1beta3
                                                                                                                               false
                                                                     networking.k8s.io/v1
                                                                                                                               false
                                                                     networking.k8s.io/v1
ingresses
networkpolicies
                                                                                                                                                  Ingress
NetworkPolicy
                                                  ing
netpol
                                                                                                                               true
                                                                                                                               true
runtimeclasses
                                                                      node.k8s.io/v1
                                                                                                                               false
                                                                                                                                                  RuntimeClass
poddisruptionbudgets
clusterrolebindings
                                                                                                                                                  PodDisruptionBudget
ClusterRoleBinding
                                                  pdb
                                                                     policy/v1
rbac.authorization.k8s.io/v1
                                                                                                                               true
                                                                                                                               false
clusterroles rolebindings
                                                                     rbac.authorization.k8s.io/v1 rbac.authorization.k8s.io/v1
                                                                                                                                                  ClusterRole
RoleBinding
                                                                                                                               false
                                                                                                                               true
                                                                     scheduling.k8s.io/v1
storage.k8s.io/v1
storage.k8s.io/v1
storage.k8s.io/v1
                                                                                                                                                  PriorityClass
priorityclasses
csidrivers
                                                                                                                               false
                                                                                                                               false
                                                                                                                                                  CSIDriver
csinodes
                                                                                                                               false
                                                                                                                                                  CSTNode
csistoragecapacities
storageclasses
volumeattachments
                                                                                                                                                  CSIStorageCapacity
                                                                                                                               true
                                                                     storage.k8s.io/v1
storage.k8s.io/v1
                                                                                                                                                  StorageClass
VolumeAttachment
                                                                                                                               false
volumeattachments
controlplane $ kubectl get all -all-namespaces
error: unknown shorthand flag: 'a' in -all-namespaces
See 'kubectl get --help' for usage.
controlplane $ kubectl get all
```

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                                                                                                                                                                                                                                                                                                  54 min
controlplane $ kubectl get all
Controlplane $ kubectl get all
NAME TYPE CLUSTER-IP EX
Service/kubernetes ClusterIP 10.96.0.1 on
controlplane $ kubectl get daemonset
No resources found in default namespace.
controlplane $ kubectl create -f daemonset set1
error: Unexpected args: [set1]
see 'kubectl create -h' for help and examples
controlplane $ kubectl get event
LAST SEEN TYPE REASON
ANDREA MOMERIASSUFFIcientMemory
                                                                                                EXTERNAL-IP
                                                                                                                            PORT(S)
443/TCP
                                                                                                                                                   AGE
20d
LAST SEEN TYPE
20d Normal
                                                                                                     OBJECT
                                                                                                                                               Node controlplane status is now: NodeHasSufficientMemory
                                              NodeHasSufficientMemory
                         Normal
Normal
                                                                                                     node/controlplane
node/controlplane
                                                                                                                                              Node controlplane status is now: NodeHasNoDiskPressure
Node controlplane status is now: NodeHasSufficientPID
20d
                                              NodeHasNoDiskPressure
                                               NodeHasSufficientPID
20d
                         Normal
Warning
                                              Starting
InvalidDiskCapacity
                                                                                                     node/controlplane
node/controlplane
                                                                                                                                               Starting kubelet.
invalid capacity 0 on image filesystem
                                                                                                                                              Node controlplane status is now: NodeHasSufficientMemory
Node controlplane status is now: NodeHasNoDiskPressure
Node controlplane status is now: NodeHasNoDiskPressure
Updated Node Allocatable limit across pods
Node controlplane event: Registered Node controlplane in Controller
                                              NodeHasSufficientMemory
NodeHasNoDiskPressure
                         Normal
Normal
                                                                                                     node/controlplane
node/controlplane
20d
 20d
204
                         Normal
Normal
                                              NodeHasSufficientPTD
                                                                                                     node/controlplane
                                               NodeAllocatableEnforced
                                                                                                     node/controlplane
                                              RegisteredNode
Starting
NodeReady
RegisteredNode
                         Normal
Normal
                                                                                                     node/controlplane
node/controlplane
 20d
 20d
                                                                                                                                              Node controlplane status is now: NodeReady
Node controlplane event: Registered Node controlplane in Controller
Node controlplane event: Registered Node controlplane in Controller
                         Normal
Normal
                                                                                                     node/controlplane
node/controlplane
20d
17m Normal RegisteredNode node/controlpla controlplane $ kubectl get event --field-selector type=warning No resources found in default namespace. controlplane $ kubectl create namespace namespace1
                                                                                                     node/controlplane
namespace/namespace1 created controlplane $ kubectl get namespaces
                                                           AGE
20d
NAME
                                            STATUS
default
kube-node-lease
kube-public
                                            Active
Active
                                                              20d
20d
kube-system
local-path-storage
                                           Active
Active
                                                              20d
20d
namespace1 Active 14s
controlplane $ kubectl describe namespace namespace1
                             namespace1
kubernetes.io/metadata.name=namespace1
 Labels:
```

```
controlplane $ kubectl annotate node minikube
error: at least one annotation update is required controlplane $ kubectl run nginx --image=nginx --restart=Never
pod/nginx created
pou/nginx created
controlplane $ kubectl get pods
NAME READY STATUS RESTARTS AGE
nginx 1/1 Running 0 12s
controlplane $ kubectl describe pods
Name:
                         nginx
Namespace:
Priority: 0
Service Account: default
                         controlplane/172.30.1.2
Start Time:
                         Tue, 02 May 2023 09:31:50 +0000
Labels:
                         run=nginx
Annotations:
                         cni.projectcalico.org/containerID: e530a9e2b80ce6aa27214f262bb233a93cfc0a955a2a1ab4c23ac9b7d6c4dda6
                         cni.projectcalico.org/podIP: 192.168.0.7/32
                         cni.projectcalico.org/podIPs: 192.168.0.7/32
                         Running
192.168.0.7
  IP: 192.168.0.7
   nginx:
                           containerd://618ca0c1e6b153094cae53bdd31b73a884d1d54c195b35fa943e2182d4cad07b
      Container ID:
      Image:
      Image ID:
                            docker.io/library/nginx@sha256:63b44e8ddb83d5dd8020327c1f40436e37a6ffffd3ef2498a6204df23be6e7e94
      Port:
                            <none>
      Host Port:
                            <none>
                            Running
Tue, 02 May 2023 09:31:57 +0000
      State:
        Started:
      Ready:
Restart Count:
                            True
      Environment:
      Mounts:
         /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-kcvl4 (ro)
Conditions:
   Type
Initialized
                            Status
                            True
   Initialized
                            True
   ContainersReady
PodScheduled
                            True
   kube-api-access-kcvl4:
                                        Projected (a volume that contains injected data from multiple sources)
      Type:
      TokenExpirationSeconds:
                                        3607
      ConfigMapName:
ConfigMapOptional:
DownwardAPI:
                                        kube-root-ca.crt
                                        <nil>
                                       true
BestEffort
 QoS Class:
 Node-Selectors:
                                       node.kubernetes.io/not-ready:NoExecute op=Exists for 300s node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
 Tolerations:
 Events:
   Type
              Reason
                            Age From
                                                               Message
   Normal Scheduled 24s
                                     default-scheduler Successfully assigned default/nginx to controlplane
                                                             Successfully assigned default/nginx to controlplane
Pulling image "nginx"
Successfully pulled image "nginx" in 5.985272728s (5.985278922s including waiting)
Created container nginx
Started container nginx
   Normal Pulling 24s
Normal Pulled 18s
                                     kubelet
   Normal Created
Normal Started
                             18s
17s
                                    kuhelet
                                     kubelet
Normal Started 178 kubelet Started Container Ng
controlplane $ kubectl get services

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 20d
controlplane $ kubectl describe services

Name: kubernetes
Name:
Namespace:
```

default

<none> ClusterIP

SingleStack IPv4 10.96.0.1 10.96.0.1 https 443/TCP 6443/TCP

Labels: Annotations: Selector:

Type:

IPs: Port: TargetPort:

IP Family Policy:
IP Families:

component=apiserver provider=kubernetes <none>

```
https 443/TCP
6443/TCP
  TargetPort:
Endpoints:
                                                                  172.30.1.2:6443
    Session Affinity: None
  Session ATTAILS,
Events: <none>
controlplane $ kubectl get serviceaccounts

NAME SECRETS AGE
default 0 20d
controlplane $ kubectl describe serviceaccounts

Name: default

default
  Namespace:
Labels:
Annotations:
                                                                         default
                                                                       <none>
   Image pull secrets: <none>
Mountable secrets: <none>
Tokens: <none>
 controlplane $ kubectl get pods -o wide
NAME READY STATUS RESTARTS AGE
nginx 1/1 Running 0
controlplane $ kubectl get namespaces
NAME STATUS AGE
default Active 20d
kube-node-lease Active 20d
kube-system Active 20d
kube-system Active 20d
local-path-storage Active 20d
namespace1 Active 13m
controlplane $ kubectl get nodes
                                                                                                                                                                                              NODE
                                                                                                                                                                                                                                                NOMINATED NODE READINESS GATES
                                                                                                                                            192.168.0.7 controlplane <none>
local-path-storage
namespace1
controlplane $ kubectl get nodes
NAME
STATUS ROLES
AGE VERSION
controlplane Ready control-plane 20d v1.26.1
controlplane $ kubectl get namespaces --show-labels
NAME
STATUS AGE LABELS
default
Active 20d kubernetes.io/meta
kube-node-lease
Active 20d kubernetes.io/meta
kube-public
Active 20d kubernetes.io/meta
kube-public
Active 20d kubernetes.io/meta
                                                                                                                        kubernetes.io/metadata.name=default
kubernetes.io/metadata.name=kube-node-lease
kubernetes.io/metadata.name=kube-public
kubernetes.io/metadata.name=kube-system
kubernetes.io/metadata.name=local-path-storage
  kube-system Active
local-path-storage Active
namespace1 Active
                                                                                                    20d
20d
```