```
login as: ubuntu
Authenticating with public key "Imported-Openssh-Key:
C:\\Users\\amit.rahate\\Downloads\\amit-centaurus-awskeypair.pem"
```

```
┌─────────────────────────────────────────────────────────────────┐
                        • MobaXterm Personal Edition v21.3 •
                    (SSH client, X server and network tools)

     → SSH session to ubuntu@34.217.57.217
        • Direct SSH      :  v
        • SSH compression :  v
        • SSH-browser     :  v
        • X11-forwarding  :  v  (remote display is forwarded through SSH)

     → For more info, ctrl+click on help or visit our website.
└─────────────────────────────────────────────────────────────────┘
```

Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.6.0-rc2 x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

  System information as of Fri Oct 22 08:58:12 UTC 2021

  System load: 0.36   Users logged in: 1
  Usage of /:   15.4% of 124.02GB IP address for eth0:   172.31.16.92
  Memory usage: 5%   IP address for docker0: 172.17.0.1
  Swap usage: 0%   IP address for cni0:   10.88.0.1
  Processes: 197

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

93 packages can be updated.
65 of these updates are security updates.
To see these additional updates run: apt list --upgradable

New release '20.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Fri Oct 22 08:37:58 2021 from 114.143.207.106
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
No resources found.
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get nodes
NAME   STATUS   ROLES   AGE   VERSION
ip-172-31-16-92   Ready   <none>   16m   v0.9.0
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ vi netpod.yaml
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
```

```
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get podes
error: the server doesn't have a resource type "podes"
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS             RESTARTS    AGE
netpod1    7089593937250922548  0/1    ContainerCreating  0           23s
netpod2    6453101433331437275  0/1    Pending            0           23s
netpod3    976012859084089935   0/1    ContainerCreating  0           23s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS      RESTARTS   AGE
netpod1    7089593937250922548  1/1    Running     0          69s
netpod2    6453101433331437275  0/1    Pending     0          69s
netpod3    976012859084089935   1/1    Running     0          69s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS      RESTARTS   AGE
netpod1    7089593937250922548  1/1    Running     0          14m
netpod2    6453101433331437275  0/1    Pending     0          14m
netpod3    976012859084089935   1/1    Running     0          14m
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS      RESTARTS   AGE
netpod1    4174296090158652534  1/1    Running     0          11s
netpod2    1386879867997956846  0/1    Pending     0          11s
netpod3    2447102095548572349  1/1    Running     0          11s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS             RESTARTS    AGE
netpod1    7891661193856640901  0/1    ContainerCreating  0           7s
netpod2    8339126042578369978  0/1    Pending            0           7s
netpod3    6613683894211313328  1/1    Running            0           7s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS      RESTARTS   AGE
netpod1    7891661193856640901  1/1    Running     0          28s
```

```
netpod2    8339126042578369978    0/1    Pending    0    28s
netpod3    6613683894211313328    1/1    Running    0    28s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY                READY   STATUS    RESTARTS   AGE
netpod1    2819819252135724678    1/1    Running    0          18s
netpod2    2813301503694115001    0/1    Pending    0          18s
netpod3    8752540612211385110    1/1    Running    0          18s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY                READY   STATUS    RESTARTS   AGE
netpod1    2970504373660447966    1/1    Running    0          58s
netpod2    1638660162306763607    0/1    Pending    0          58s
netpod3    1065238296562945033    1/1    Running    0          58s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods -o wide
NAME       HASHKEY                READY   STATUS    RESTARTS   AGE    IP            NODE
NOMINATED NODE    READINESS GATES
netpod1    2970504373660447966    1/1    Running    0          3m3s   10.88.0.12
ip-172-31-16-92    <none>            <none>
netpod2    1638660162306763607    0/1    Pending    0          3m3s   <none>
<none>             <none>            <none>
netpod3    1065238296562945033    1/1    Running    0          3m3s   10.88.0.13
ip-172-31-16-92    <none>            <none>
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod1 --
ping 10.88.0.12
PING 10.88.0.12 (10.88.0.12) 56(84) bytes of data.
64 bytes from 10.88.0.12: icmp_seq=1 ttl=64 time=0.024 ms
64 bytes from 10.88.0.12: icmp_seq=2 ttl=64 time=0.038 ms
64 bytes from 10.88.0.12: icmp_seq=3 ttl=64 time=0.051 ms
64 bytes from 10.88.0.12: icmp_seq=4 ttl=64 time=0.028 ms
64 bytes from 10.88.0.12: icmp_seq=5 ttl=64 time=0.043 ms
64 bytes from 10.88.0.12: icmp_seq=6 ttl=64 time=0.032 ms
64 bytes from 10.88.0.12: icmp_seq=7 ttl=64 time=0.041 ms
```

```
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod3 --
ping 10.88.0.13
PING 10.88.0.13 (10.88.0.13) 56(84) bytes of data.
64 bytes from 10.88.0.13: icmp_seq=1 ttl=64 time=0.024 ms
64 bytes from 10.88.0.13: icmp_seq=2 ttl=64 time=0.048 ms
64 bytes from 10.88.0.13: icmp_seq=3 ttl=64 time=0.032 ms
64 bytes from 10.88.0.13: icmp_seq=4 ttl=64 time=0.044 ms
64 bytes from 10.88.0.13: icmp_seq=5 ttl=64 time=0.046 ms
64 bytes from 10.88.0.13: icmp_seq=6 ttl=64 time=0.044 ms
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ vi netpod.yaml
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          7s
netpod2    8766224601176388866  0/1     Pending    0          7s
netpod3    3314071667512398109  1/1     Running    0          7s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          9s
netpod2    8766224601176388866  0/1     Pending    0          9s
netpod3    3314071667512398109  1/1     Running    0          9s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          17s
netpod2    8766224601176388866  0/1     Pending    0          17s
netpod3    3314071667512398109  1/1     Running    0          17s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          18s
netpod2    8766224601176388866  0/1     Pending    0          18s
netpod3    3314071667512398109  1/1     Running    0          18s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          19s
netpod2    8766224601176388866  0/1     Pending    0          19s
netpod3    3314071667512398109  1/1     Running    0          19s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS     RESTARTS   AGE
netpod1    2354593056425124574  1/1     Running    0          44s
netpod2    8766224601176388866  0/1     Pending    0          44s
netpod3    3314071667512398109  1/1     Running    0          44s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ vi netpod.yaml
```

```
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ vi netpod.yaml
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ rm -rf netpod.yaml
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ vi netpod.yaml
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 unchanged
service/netsvc unchanged
Error from server (Invalid): error when applying patch:
{"metadata":{"annotations":{"kubectl.kubernetes.io/last-applied-configuration":"{\"ap
iVersion\":\"v1\",\"kind\":\"Pod\",\"metadata\":{\"annotations\":{},\"labels\":{\"app
\":\"netpod\"},\"name\":\"netpod2\",\"namespace\":\"default\",\"tenant\":\"system\"},
\"spec\":{\"containers\":[{\"image\":\"mizarnet/testpod\",\"name\":\"netctr\",\"ports
\":[{\"containerPort\":9001,\"protocol\":\"TCP\"},{\"containerPort\":5001,\"protocol\
":\"UDP\"},{\"containerPort\":7000,\"protocol\":\"TCP\"}]}],\"restartPolicy\":\"OnFai
lure\",\"terminationGracePeriodSeconds\":10}}\n"}},"spec":{"affinity":null}}
to:
Resource: "/v1, Resource=pods", GroupVersionKind: "/v1, Kind=Pod"
Name: "netpod2", Namespace: "default", Tenant: "system"
Object: &{map["apiVersion":"v1" "kind":"Pod"
"metadata":map["annotations":map["kubectl.kubernetes.io/last-applied-configuration":"
{\"apiVersion\":\"v1\",\"kind\":\"Pod\",\"metadata\":{\"annotations\":{},\"labels\":{
\"app\":\"netpod\"},\"name\":\"netpod2\",\"namespace\":\"default\",\"tenant\":\"syste
m\"},\"spec\":{\"affinity\":{\"podAntiAffinity\":{\"requiredDuringSchedulingIgnoredDu
ringExecution\":[{\"labelSelector\":{\"matchExpressions\":[{\"key\":\"podkey\",\"oper
ator\":\"In\",\"values\":[\"netpodkey1\"]}]},\"topologyKey\":\"kubernetes.io/hostname
\"}]}},\"containers\":[{\"image\":\"mizarnet/testpod\",\"name\":\"netctr\",\"ports\":
[{\"containerPort\":9001,\"protocol\":\"TCP\"},{\"containerPort\":5001,\"protocol\":\
"UDP\"},{\"containerPort\":7000,\"protocol\":\"TCP\"}]}],\"restartPolicy\":\"OnFailur
e\",\"terminationGracePeriodSeconds\":10}}\n"]
"creationTimestamp":"2021-10-22T10:02:43Z" "hashKey":%!q(int64=+8766224601176388866)
"labels":map["app":"netpod"] "name":"netpod2" "namespace":"default"
"resourceVersion":"1826" "selfLink":"/api/v1/namespaces/default/pods/netpod2"
"tenant":"system" "uid":"5d714d65-9f73-478c-81e3-3677fd52bf49"]
"spec":map["affinity":map["podAntiAffinity":map["requiredDuringSchedulingIgnoredDurin
gExecution":[map["labelSelector":map["matchExpressions":[map["key":"podkey"
"operator":"In" "values":["netpodkey1"]]]] "topologyKey":"kubernetes.io/hostname"]]]]
"containers":[map["image":"mizarnet/testpod" "imagePullPolicy":"Always"
"name":"netctr" "ports":[map["containerPort":'\u2329' "protocol":"TCP"]
map["containerPort":'\u1389' "protocol":"UDP"] map["containerPort":'\u1b58'
"protocol":"TCP"]] "resources":map[] "terminationMessagePath":"/dev/termination-log"
"terminationMessagePolicy":"File"
"volumeMounts":[map["mountPath":"/var/run/secrets/kubernetes.io/serviceaccount"
"name":"default-token-chn2b" "readOnly":%!q(bool=true)]]]] "dnsPolicy":"ClusterFirst"
"enableServiceLinks":%!q(bool=true) "priority":'\x00' "restartPolicy":"OnFailure"
"schedulerName":"default-scheduler" "securityContext":map[] "serviceAccount":"default"
"serviceAccountName":"default" "terminationGracePeriodSeconds":'\n'
"tolerations":[map["effect":"NoExecute" "key":"node.kubernetes.io/not-ready"
"operator":"Exists" "tolerationSeconds":'\u012c'] map["effect":"NoExecute"
"key":"node.kubernetes.io/unreachable" "operator":"Exists"
"tolerationSeconds":'\u012c']] "volumes":[map["name":"default-token-chn2b"
"secret":map["defaultMode":'\u01a4' "secretName":"default-token-chn2b"]]]
"workloadInfo":[map["image":"mizarnet/testpod" "name":"netctr" "resources":map[]]]]
"status":map["conditions":[map["lastProbeTime":<nil>
"lastTransitionTime":"2021-10-22T10:02:43Z" "message":"0/1 nodes are available: 1
node(s) didn't match pod affinity/anti-affinity, 1 node(s) didn't match pod anti-affinity
```

```
rules." "reason":"Unschedulable" "status":"False" "type":"PodScheduled"]]
"phase":"Pending" "qosClass":"BestEffort"]]}
for: "netpod.yaml": Pod "netpod2" is invalid: spec: Forbidden: pod updates may not change
fields other than `spec.containers[*].image`, `spec.initContainers[*].image`,
`spec.activeDeadlineSeconds`, `spec.nics` or `spec.tolerations` (only additions to
existing tolerations) or `spec.containers[*].resources` or
`spec.containers[*].resourcesAllocated` (for cpu, memory only)
  core.PodSpec{
        ... // 17 identical fields
        Hostname:  "",
        Subdomain: "",
-       Affinity:  nil,
+       Affinity: &core.Affinity{
+               PodAntiAffinity: &core.PodAntiAffinity{
+                       RequiredDuringSchedulingIgnoredDuringExecution:
[]core.PodAffinityTerm{
+                               {
+                                       LabelSelector:
s"&LabelSelector{MatchLabels:map[string]string{},MatchExpressions:[]LabelSelectorRequ
irement{LabelSelectorRequirement{Key:podkey,Operator:In,Values:[netpodkey1],},},},}",
+                                       TopologyKey:   "kubernetes.io/hostname",
+                               },
+                       },
+               },
+       },
        SchedulerName: "default-scheduler",
        Tolerations:   []core.Toleration{{Key: "node.kubernetes.io/not-ready",
Operator: "Exists", Effect: "NoExecute", TolerationSeconds: &300}, {Key:
"node.kubernetes.io/unreachable", Operator: "Exists", Effect: "NoExecute",
TolerationSeconds: &300}},
        ... // 10 identical fields
  }
```

```
Error from server (Invalid): error when applying patch:
{"metadata":{"annotations":{"kubectl.kubernetes.io/last-applied-configuration":"{\"ap
iVersion\":\"v1\",\"kind\":\"Pod\",\"metadata\":{\"annotations\":{},\"labels\":{\"app
\":\"netpod\"},\"name\":\"netpod3\",\"namespace\":\"default\",\"tenant\":\"system\"},
\"spec\":{\"affinity\":{\"podAffinity\":{\"requiredDuringSchedulingIgnoredDuringExecu
tion\":[{\"labelSelector\":{\"matchExpressions\":[{\"key\":\"podkey\",\"operator\":\"
In\",\"values\":[\"netpodkey1\"]}]},\"topologyKey\":\"kubernetes.io/hostname\"}]}},\"
containers\":[{\"image\":\"mizarnet/testpod\",\"name\":\"netctr\",\"ports\":[{\"conta
inerPort\":9001,\"protocol\":\"TCP\"},{\"containerPort\":5001,\"protocol\":\"UDP\"},{
\"containerPort\":7000,\"protocol\":\"TCP\"}]}],\"restartPolicy\":\"OnFailure\",\"ter
minationGracePeriodSeconds\":10}}\n"}},"spec":{"affinity":{"podAffinity":{"requiredDu
ringSchedulingIgnoredDuringExecution":[{"labelSelector":{"matchExpressions":[{"key":"
podkey","operator":"In","values":["netpodkey1"]}]},"topologyKey":"kubernetes.io/hostn
ame"}]}}}}
to:
Resource: "/v1, Resource=pods", GroupVersionKind: "/v1, Kind=Pod"
Name: "netpod3", Namespace: "default", Tenant: "system"
Object: &{map["apiVersion":"v1" "kind":"Pod"
"metadata":map["annotations":map["kubectl.kubernetes.io/last-applied-configuration":"
{\"apiVersion\":\"v1\",\"kind\":\"Pod\",\"metadata\":{\"annotations\":{},\"labels\":{
\"app\":\"netpod\"},\"name\":\"netpod3\",\"namespace\":\"default\",\"tenant\":\"syste
m\"},\"spec\":{\"containers\":[{\"image\":\"mizarnet/testpod\",\"name\":\"netctr\",\"
```

ports\":[{\"containerPort\":9001,\"protocol\":\"TCP\"},{\"containerPort\":5001,\"prot
ocol\":\"UDP\"},{\"containerPort\":7000,\"protocol\":\"TCP\"}]}],\"restartPolicy\":\"
OnFailure\",\"terminationGracePeriodSeconds\":10}}\n"]
"creationTimestamp":"2021-10-22T10:02:43Z" "hashKey":%!q(int64=+3314071667512398109)
"labels":map["app":"netpod"] "name":"netpod3" "namespace":"default"
"resourceVersion":"1853" "selfLink":"/api/v1/namespaces/default/pods/netpod3"
"tenant":"system" "uid":"18bc4397-d1fa-404f-b9f8-f0c222ae0ca9"]
"spec":map["containers":[map["image":"mizarnet/testpod" "imagePullPolicy":"Always"
"name":"netctr" "ports":[map["containerPort":'\u2329' "protocol":"TCP"]
map["containerPort":'\u1389' "protocol":"UDP"] map["containerPort":'\u1b58'
"protocol":"TCP"]] "resources":map[] "terminationMessagePath":"/dev/termination-log"
"terminationMessagePolicy":"File"
"volumeMounts":[map["mountPath":"/var/run/secrets/kubernetes.io/serviceaccount"
"name":"default-token-chn2b" "readOnly":%!q(bool=true)]]]] "dnsPolicy":"ClusterFirst"
"enableServiceLinks":%!q(bool=true) "nodeName":"ip-172-31-16-92" "priority":'\x00'
"restartPolicy":"OnFailure" "schedulerName":"default-scheduler"
"securityContext":map[] "serviceAccount":"default" "serviceAccountName":"default"
"terminationGracePeriodSeconds":'\n' "tolerations":[map["effect":"NoExecute"
"key":"node.kubernetes.io/not-ready" "operator":"Exists" "tolerationSeconds":'\u012c']
map["effect":"NoExecute" "key":"node.kubernetes.io/unreachable" "operator":"Exists"
"tolerationSeconds":'\u012c']] "volumes":[map["name":"default-token-chn2b"
"secret":map["defaultMode":'\u01a4' "secretName":"default-token-chn2b"]]]
"workloadInfo":[map["image":"mizarnet/testpod" "name":"netctr" "resources":map[]]]]
"status":map["conditions":[map["lastProbeTime":<nil>
"lastTransitionTime":"2021-10-22T10:02:43Z" "status":"True" "type":"Initialized"]
map["lastProbeTime":<nil> "lastTransitionTime":"2021-10-22T10:02:48Z" "status":"True"
"type":"ContainersReady"] map["lastProbeTime":<nil>
"lastTransitionTime":"2021-10-22T10:02:48Z" "status":"True" "type":"Ready"]
map["lastProbeTime":<nil> "lastTransitionTime":"2021-10-22T10:02:43Z" "status":"True"
"type":"PodScheduled"]]
"containerStatuses":[map["containerID":"unknown://09825c2551ee81be76371000a34d5b73721
7ec3a4cd5da1d03d7cfbf6e66de41" "image":"docker.io/mizarnet/testpod:latest"
"imageID":"docker.io/mizarnet/testpod@sha256:ba467879a849c0842d8d71be44cb31efa2b3a27c
b774147f2bac7189c23eed3e" "lastState":map[] "name":"netctr" "ready":%!q(bool=true)
"resources":map[] "restartCount":'\x00'
"state":map["running":map["startedAt":"2021-10-22T10:02:48Z"]]]]
"hostIP":"172.31.16.92" "phase":"Running" "podIP":"10.88.0.14" "qosClass":"BestEffort"
"startTime":"2021-10-22T10:02:43Z"]]}
for: "netpod.yaml": Pod "netpod3" is invalid: spec: Forbidden: pod updates may not change
fields other than `spec.containers[*].image`, `spec.initContainers[*].image`,
`spec.activeDeadlineSeconds`, `spec.nics` or `spec.tolerations` (only additions to
existing tolerations) or `spec.containers[*].resources` or
`spec.containers[*].resourcesAllocated` (for cpu, memory only)
  core.PodSpec{
        ... // 17 identical fields
        Hostname: "",
        Subdomain: "",
-       Affinity: &core.Affinity{
-               PodAffinity: &core.PodAffinity{
-                       RequiredDuringSchedulingIgnoredDuringExecution:
[]core.PodAffinityTerm{
-                               {
-                                       LabelSelector:
s"&LabelSelector{MatchLabels:map[string]string{},MatchExpressions:[]LabelSelectorRequi
rement{LabelSelectorRequirement{Key:podkey,Operator:In,Values:[netpodkey1],},},},}",

```
-                                              TopologyKey:    "kubernetes.io/hostname",
-                              },
-                      },
-              },
-         },
+        Affinity:       nil,
         SchedulerName: "default-scheduler",
         Tolerations:    []core.Toleration{{Key: "node.kubernetes.io/not-ready",
Operator: "Exists", Effect: "NoExecute", TolerationSeconds: &300}, {Key:
"node.kubernetes.io/unreachable", Operator: "Exists", Effect: "NoExecute",
TolerationSeconds: &300}},
         ... // 10 identical fields
  }

ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh delete -f
netpod.yaml
pod "netpod1" deleted
pod "netpod2" deleted
pod "netpod3" deleted
service "netsvc" deleted
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh apply -f
netpod.yaml
pod/netpod1 created
pod/netpod2 created
pod/netpod3 created
service/netsvc created
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods
NAME       HASHKEY              READY   STATUS      RESTARTS    AGE
netpod1    2155346432351886717  1/1     Running     0           8s
netpod2    7514663260998588237  1/1     Running     0           8s
netpod3    4218635305095302240  1/1     Running     0           8s
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod1 --
ping 10.88.0.12
PING 10.88.0.12 (10.88.0.12) 56(84) bytes of data.
From 10.88.0.16 icmp_seq=1 Destination Host Unreachable
From 10.88.0.16 icmp_seq=2 Destination Host Unreachable
From 10.88.0.16 icmp_seq=3 Destination Host Unreachable
From 10.88.0.16 icmp_seq=4 Destination Host Unreachable
From 10.88.0.16 icmp_seq=5 Destination Host Unreachable
From 10.88.0.16 icmp_seq=6 Destination Host Unreachable
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh get pods -o wide
NAME       HASHKEY              READY   STATUS      RESTARTS    AGE    IP           NODE
NOMINATED NODE    READINESS GATES
netpod1    2155346432351886717  1/1     Running     0           14m    10.88.0.16
ip-172-31-16-92   <none>          <none>
netpod2    7514663260998588237  1/1     Running     0           14m    10.88.0.18
ip-172-31-16-92   <none>          <none>
netpod3    4218635305095302240  1/1     Running     0           14m    10.88.0.17
ip-172-31-16-92   <none>          <none>
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod1 --
ping 10.88.0.16
PING 10.88.0.16 (10.88.0.16) 56(84) bytes of data.
64 bytes from 10.88.0.16: icmp_seq=1 ttl=64 time=0.023 ms
64 bytes from 10.88.0.16: icmp_seq=2 ttl=64 time=0.041 ms
```

```
64 bytes from 10.88.0.16: icmp_seq=3 ttl=64 time=0.030 ms
64 bytes from 10.88.0.16: icmp_seq=4 ttl=64 time=0.032 ms
64 bytes from 10.88.0.16: icmp_seq=5 ttl=64 time=0.034 ms
64 bytes from 10.88.0.16: icmp_seq=6 ttl=64 time=0.022 ms
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod1 --
ping 10.88.0.18
PING 10.88.0.18 (10.88.0.18) 56(84) bytes of data.
64 bytes from 10.88.0.18: icmp_seq=1 ttl=64 time=0.118 ms
64 bytes from 10.88.0.18: icmp_seq=2 ttl=64 time=0.076 ms
64 bytes from 10.88.0.18: icmp_seq=3 ttl=64 time=0.076 ms
64 bytes from 10.88.0.18: icmp_seq=4 ttl=64 time=0.056 ms
64 bytes from 10.88.0.18: icmp_seq=5 ttl=64 time=0.056 ms
64 bytes from 10.88.0.18: icmp_seq=6 ttl=64 time=0.074 ms
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$ ./cluster/kubectl.sh exec netpod1 --
ping 10.88.0.17
PING 10.88.0.17 (10.88.0.17) 56(84) bytes of data.
64 bytes from 10.88.0.17: icmp_seq=1 ttl=64 time=0.107 ms
64 bytes from 10.88.0.17: icmp_seq=2 ttl=64 time=0.053 ms
64 bytes from 10.88.0.17: icmp_seq=3 ttl=64 time=0.118 ms
64 bytes from 10.88.0.17: icmp_seq=4 ttl=64 time=0.101 ms
64 bytes from 10.88.0.17: icmp_seq=5 ttl=64 time=0.058 ms
^C
ubuntu@ip-172-31-16-92:~/go/src/k8s.io/arktos$
```