Cluster Installation Logs

```
Daniels-MacBook-Pro:playbooks daniel$ ssh root@10.0.0.98
The authenticity of host '10.0.0.98 (10.0.0.98)' can't be established.
ECDSA key fingerprint is SHA256:J8zzv7VA7JQYLa0FXCrvVtj12JvgQxc+NlJN2Mq7BRE.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.0.0.98' (ECDSA) to the list of known hosts.
root@10.0.0.98's password:
-bash: warning: setlocale: LC_CTYPE: cannot change locale (UTF-8): No such file or directory
[root@kclustert ~]# echo "LANG=en_US.utf-8
> LC_ALL=en_US.utf-8" >> /etc/environment;
[root@kclustert ~]# cat /etc/environment
LANG=en_US.utf-8
LC_ALL=en_US.utf-8
[root@kclustert ~]# setenforce 0
[root@kclustert ~]# sed -i 's/^SELINUX=enforcing$/SELINUX=permissive/' /etc/selinux/config
[root@kclustert ~]# yum install yum-utils device-mapper-persistent-data lv^C
[root@kclustert ~]# ^C
[root@kclustert ~]# yum install yum-utils device-mapper-persistent-data lvm2
Failed to set locale, defaulting to C
Loaded plugins: fastestmirror
Determining fastest mirrors
 * base: centos.ufes.br
 * extras: centos.ufes.br
 * updates: centos.ufes.br
base
| 3.6 kB  00:00:00
extras
| 2.9 kB  00:00:00
updates
| 2.9 kB  00:00:00
(1/4): extras/7/x86_64/primary_db
| 152 kB  00:00:01
(2/4): base/7/x86_64/group_gz
| 165 kB  00:00:01
(3/4): updates/7/x86_64/primary_db
| 1.9 MB  00:00:09
(4/4): base/7/x86_64/primary_db
| 6.0 MB  00:00:16
Resolving Dependencies
--> Running transaction check
---> Package device-mapper-persistent-data.x86_64 0:0.7.3-3.el7 will be updated
---> Package device-mapper-persistent-data.x86_64 0:0.8.5-1.el7 will be an update
---> Package lvm2.x86_64 7:2.02.180-8.el7 will be updated
---> Package lvm2.x86_64 7:2.02.185-2.el7 will be an update
--> Processing Dependency: lvm2-libs = 7:2.02.185-2.el7 for package: 7:lvm2-2.02.185-2.el7.x86_64
---> Package yum-utils.noarch 0:1.1.31-52.el7 will be installed
--> Processing Dependency: python-kitchen for package: yum-utils-1.1.31-52.el7.noarch
--> Processing Dependency: libxml2-python for package: yum-utils-1.1.31-52.el7.noarch
--> Running transaction check
---> Package libxml2-python.x86_64 0:2.9.1-6.el7_2.3 will be installed
---> Package lvm2-libs.x86_64 7:2.02.180-8.el7 will be updated
---> Package lvm2-libs.x86_64 7:2.02.185-2.el7 will be an update
--> Processing Dependency: device-mapper-event = 7:1.02.158-2.el7 for package:
7:lvm2-libs-2.02.185-2.el7.x86_64
---> Package python-kitchen.noarch 0:1.1.1-5.el7 will be installed
--> Processing Dependency: python-chardet for package: python-kitchen-1.1.1-5.el7.noarch
--> Running transaction check
---> Package device-mapper-event.x86_64 7:1.02.149-8.el7 will be updated
```

```
---> Package device-mapper-event.x86_64 7:1.02.158-2.el7 will be an update
--> Processing Dependency: device-mapper-event-libs = 7:1.02.158-2.el7 for package:
7:device-mapper-event-1.02.158-2.el7.x86_64
--> Processing Dependency: device-mapper = 7:1.02.158-2.el7 for package:
7:device-mapper-event-1.02.158-2.el7.x86_64
---> Package python-chardet.noarch 0:2.2.1-3.el7 will be installed
--> Running transaction check
---> Package device-mapper.x86_64 7:1.02.149-8.el7 will be updated
--> Processing Dependency: device-mapper = 7:1.02.149-8.el7 for package:
7:device-mapper-libs-1.02.149-8.el7.x86_64
---> Package device-mapper.x86_64 7:1.02.158-2.el7 will be an update
---> Package device-mapper-event-libs.x86_64 7:1.02.149-8.el7 will be updated
---> Package device-mapper-event-libs.x86_64 7:1.02.158-2.el7 will be an update
--> Running transaction check
---> Package device-mapper-libs.x86_64 7:1.02.149-8.el7 will be updated
---> Package device-mapper-libs.x86_64 7:1.02.158-2.el7 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
================================================================================
===================================================
 Package                                                        Arch
Version                                          Repository
Size
================================================================================
================================================================================
===================================================
Installing:
 yum-utils                                                      noarch
1.1.31-52.el7                                    base
121 k
Updating:
 device-mapper-persistent-data                                  x86_64
0.8.5-1.el7                                      base
423 k
 lvm2                                                           x86_64
7:2.02.185-2.el7                                 base
1.3 M
Installing for dependencies:
 libxml2-python                                                 x86_64
2.9.1-6.el7_2.3                                  base
247 k
 python-chardet                                                 noarch
2.2.1-3.el7                                      base
227 k
 python-kitchen                                                 noarch
1.1.1-5.el7                                      base
267 k
Updating for dependencies:
 device-mapper                                                  x86_64
7:1.02.158-2.el7                                 base
294 k
 device-mapper-event                                            x86_64
7:1.02.158-2.el7                                 base
189 k
 device-mapper-event-libs                                       x86_64
7:1.02.158-2.el7                                 base
189 k
 device-mapper-libs                                             x86_64
7:1.02.158-2.el7                                 base
322 k
```

```
 lvm2-libs                                                              x86_64
7:2.02.185-2.el7                                                        base
1.1 M

Transaction Summary
================================================================================
================================================================================
==================================================
Install  1 Package  (+3 Dependent packages)
Upgrade  2 Packages (+5 Dependent packages)

Total download size: 4.6 M
Is this ok [y/d/N]: y
Downloading packages:
Delta RPMs disabled because /usr/bin/applydeltarpm not installed.
warning: /var/cache/yum/x86_64/7/base/packages/device-mapper-event-1.02.158-2.el7.x86_64.rpm: Header V3
RSA/SHA256 Signature, key ID f4a80eb5: NOKEY
] 252 kB/s | 382 kB  00:00:17 ETA
Public key for device-mapper-event-1.02.158-2.el7.x86_64.rpm is not installed
(1/11): device-mapper-event-1.02.158-2.el7.x86_64.rpm
| 189 kB  00:00:01
(2/11): device-mapper-event-libs-1.02.158-2.el7.x86_64.rpm
| 189 kB  00:00:01
(3/11): device-mapper-libs-1.02.158-2.el7.x86_64.rpm
| 322 kB  00:00:02
(4/11): device-mapper-1.02.158-2.el7.x86_64.rpm
| 294 kB  00:00:03
(5/11): libxml2-python-2.9.1-6.el7_2.3.x86_64.rpm
| 247 kB  00:00:02
(6/11): device-mapper-persistent-data-0.8.5-1.el7.x86_64.rpm
| 423 kB  00:00:03
(7/11): yum-utils-1.1.31-52.el7.noarch.rpm
| 121 kB  00:00:01
(8/11): python-chardet-2.2.1-3.el7.noarch.rpm
| 227 kB  00:00:01
(9/11): python-kitchen-1.1.1-5.el7.noarch.rpm
| 267 kB  00:00:01
(10/11): lvm2-libs-2.02.185-2.el7.x86_64.rpm
| 1.1 MB  00:00:05
(11/11): lvm2-2.02.185-2.el7.x86_64.rpm
| 1.3 MB  00:00:06
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
------------------------------------------------------
Total
546 kB/s | 4.6 MB  00:00:08
Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7
Importing GPG key 0xF4A80EB5:
 Userid     : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"
 Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5
 Package    : centos-release-7-6.1810.2.el7.centos.x86_64 (@anaconda)
 From       : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7
Is this ok [y/N]: y
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Updating   : 7:device-mapper-libs-1.02.158-2.el7.x86_64
1/18
  Updating   : 7:device-mapper-1.02.158-2.el7.x86_64
2/18
  Updating   : 7:device-mapper-event-libs-1.02.158-2.el7.x86_64
3/18
```

```
  Updating   : 7:device-mapper-event-1.02.158-2.el7.x86_64
4/18
  Updating   : 7:lvm2-libs-2.02.185-2.el7.x86_64
5/18
  Installing : python-chardet-2.2.1-3.el7.noarch
6/18
  Installing : python-kitchen-1.1.1-5.el7.noarch
7/18
  Updating   : device-mapper-persistent-data-0.8.5-1.el7.x86_64
8/18
  Installing : libxml2-python-2.9.1-6.el7_2.3.x86_64
9/18
  Installing : yum-utils-1.1.31-52.el7.noarch
10/18
  Updating   : 7:lvm2-2.02.185-2.el7.x86_64
11/18
  Cleanup    : 7:lvm2-2.02.180-8.el7.x86_64
12/18
  Cleanup    : 7:lvm2-libs-2.02.180-8.el7.x86_64
13/18
  Cleanup    : 7:device-mapper-event-1.02.149-8.el7.x86_64
14/18
  Cleanup    : 7:device-mapper-event-libs-1.02.149-8.el7.x86_64
15/18
  Cleanup    : 7:device-mapper-1.02.149-8.el7.x86_64
16/18
  Cleanup    : 7:device-mapper-libs-1.02.149-8.el7.x86_64
17/18
  Cleanup    : device-mapper-persistent-data-0.7.3-3.el7.x86_64
18/18
  Verifying  : 7:device-mapper-event-1.02.158-2.el7.x86_64
1/18
  Verifying  : libxml2-python-2.9.1-6.el7_2.3.x86_64
2/18
  Verifying  : device-mapper-persistent-data-0.8.5-1.el7.x86_64
3/18
  Verifying  : yum-utils-1.1.31-52.el7.noarch
4/18
  Verifying  : 7:device-mapper-event-libs-1.02.158-2.el7.x86_64
5/18
  Verifying  : python-kitchen-1.1.1-5.el7.noarch
6/18
  Verifying  : 7:device-mapper-1.02.158-2.el7.x86_64
7/18
  Verifying  : 7:device-mapper-libs-1.02.158-2.el7.x86_64
8/18
  Verifying  : 7:lvm2-libs-2.02.185-2.el7.x86_64
9/18
  Verifying  : 7:lvm2-2.02.185-2.el7.x86_64
10/18
  Verifying  : python-chardet-2.2.1-3.el7.noarch
11/18
  Verifying  : device-mapper-persistent-data-0.7.3-3.el7.x86_64
12/18
  Verifying  : 7:lvm2-2.02.180-8.el7.x86_64
13/18
  Verifying  : 7:device-mapper-event-1.02.149-8.el7.x86_64
14/18
  Verifying  : 7:lvm2-libs-2.02.180-8.el7.x86_64
15/18
  Verifying  : 7:device-mapper-1.02.149-8.el7.x86_64
16/18
  Verifying  : 7:device-mapper-event-libs-1.02.149-8.el7.x86_64
17/18
```

```
  Verifying  : 7:device-mapper-libs-1.02.149-8.el7.x86_64
18/18


Installed:
  yum-utils.noarch 0:1.1.31-52.el7


Dependency Installed:
  libxml2-python.x86_64 0:2.9.1-6.el7_2.3
python-chardet.noarch 0:2.2.1-3.el7
python-kitchen.noarch 0:1.1.1-5.el7


Updated:
  device-mapper-persistent-data.x86_64 0:0.8.5-1.el7
lvm2.x86_64 7:2.02.185-2.el7


Dependency Updated:
  device-mapper.x86_64 7:1.02.158-2.el7          device-mapper-event.x86_64 7:1.02.158-2.el7
device-mapper-event-libs.x86_64 7:1.02.158-2.el7          device-mapper-libs.x86_64 7:1.02.158-2.el7
lvm2-libs.x86_64 7:2.02.185-2.el7


Complete!
[root@kclustert ~]# yum-config-manager   --add-repo   https://download.docker.com/linux/centos/docker-ce.repo
Failed to set locale, defaulting to C
Loaded plugins: fastestmirror
adding repo from: https://download.docker.com/linux/centos/docker-ce.repo
grabbing file https://download.docker.com/linux/centos/docker-ce.repo to /etc/yum.repos.d/docker-ce.repo
repo saved to /etc/yum.repos.d/docker-ce.repo
[root@kclustert ~]# yum install docker-ce
Failed to set locale, defaulting to C
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.ufes.br
 * extras: centos.ufes.br
 * updates: centos.ufes.br
docker-ce-stable
| 3.5 kB  00:00:00
(1/2): docker-ce-stable/x86_64/updateinfo
|   55 B  00:00:00
(2/2): docker-ce-stable/x86_64/primary_db
|  34 kB  00:00:00
Resolving Dependencies
--> Running transaction check
---> Package docker-ce.x86_64 3:19.03.2-3.el7 will be installed
--> Processing Dependency: container-selinux >= 2:2.74 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: containerd.io >= 1.2.2-3 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libseccomp >= 2.3 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: docker-ce-cli for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libcgroup for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libseccomp.so.2()(64bit) for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Running transaction check
---> Package container-selinux.noarch 2:2.107-3.el7 will be installed
--> Processing Dependency: policycoreutils-python for package: 2:container-selinux-2.107-3.el7.noarch
---> Package containerd.io.x86_64 0:1.2.6-3.3.el7 will be installed
---> Package docker-ce-cli.x86_64 1:19.03.2-3.el7 will be installed
---> Package libcgroup.x86_64 0:0.41-21.el7 will be installed
---> Package libseccomp.x86_64 0:2.3.1-3.el7 will be installed
--> Running transaction check
---> Package policycoreutils-python.x86_64 0:2.5-33.el7 will be installed
--> Processing Dependency: policycoreutils = 2.5-33.el7 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: setools-libs >= 3.3.8-4 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libsemanage-python >= 2.5-14 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: audit-libs-python >= 2.1.3-4 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: python-IPy for package: policycoreutils-python-2.5-33.el7.x86_64
```

```
--> Processing Dependency: libqpol.so.1(VERS_1.4)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libqpol.so.1(VERS_1.2)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libapol.so.4(VERS_4.0)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: checkpolicy for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libqpol.so.1()(64bit) for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libapol.so.4()(64bit) for package: policycoreutils-python-2.5-33.el7.x86_64
--> Running transaction check
---> Package audit-libs-python.x86_64 0:2.8.5-4.el7 will be installed
--> Processing Dependency: audit-libs(x86-64) = 2.8.5-4.el7 for package: audit-libs-python-2.8.5-4.el7.x86_64
---> Package checkpolicy.x86_64 0:2.5-8.el7 will be installed
---> Package libsemanage-python.x86_64 0:2.5-14.el7 will be installed
---> Package policycoreutils.x86_64 0:2.5-29.el7 will be updated
---> Package policycoreutils.x86_64 0:2.5-33.el7 will be an update
---> Package python-IPy.noarch 0:0.75-6.el7 will be installed
---> Package setools-libs.x86_64 0:3.3.8-4.el7 will be installed
--> Running transaction check
---> Package audit-libs.x86_64 0:2.8.4-4.el7 will be updated
--> Processing Dependency: audit-libs(x86-64) = 2.8.4-4.el7 for package: audit-2.8.4-4.el7.x86_64
---> Package audit-libs.x86_64 0:2.8.5-4.el7 will be an update
--> Running transaction check
---> Package audit.x86_64 0:2.8.4-4.el7 will be updated
---> Package audit.x86_64 0:2.8.5-4.el7 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================================================
================================================================================================================
====================================================
 Package                                                         Arch
Version                                                          Repository
Size
================================================================================================================
================================================================================================================
====================================================
Installing:
 docker-ce                                                       x86_64
3:19.03.2-3.el7                                                  docker-ce-stable
24 M
Installing for dependencies:
 audit-libs-python                                               x86_64
2.8.5-4.el7                                                      base
76 k
 checkpolicy                                                     x86_64
2.5-8.el7                                                        base
295 k
 container-selinux                                               noarch
2:2.107-3.el7                                                    extras
39 k
 containerd.io                                                   x86_64
1.2.6-3.3.el7                                                    docker-ce-stable
26 M
 docker-ce-cli                                                   x86_64
1:19.03.2-3.el7                                                  docker-ce-stable
39 M
 libcgroup                                                       x86_64
0.41-21.el7                                                      base
66 k
 libseccomp                                                      x86_64
2.3.1-3.el7                                                      base
56 k
```

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 libsemanage-python                                          x86_64
2.5-14.el7                                         base
113 k
 policycoreutils-python                                      x86_64
2.5-33.el7                                         base
457 k
 python-IPy                                                  noarch
0.75-6.el7                                         base
32 k
 setools-libs                                                x86_64
3.3.8-4.el7                                        base
620 k
Updating for dependencies:
 audit                                                       x86_64
2.8.5-4.el7                                        base
256 k
 audit-libs                                                  x86_64
2.8.5-4.el7                                        base
102 k
 policycoreutils                                             x86_64
2.5-33.el7                                         base
916 k

Transaction Summary
================================================================================================================
================================================================================================================
====================================================
Install  1 Package  (+11 Dependent packages)
Upgrade             (  3 Dependent packages)

Total download size: 93 M
Is this ok [y/d/N]: ^C^C
Exiting on user command
Your transaction was saved, rerun it with:
 yum load-transaction /tmp/yum_save_tx.2019-10-05.16-31.gHoAop.yumtx
[root@kclustert ~]#
[root@kclustert ~]# yum install docker-ce -y
Failed to set locale, defaulting to C
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.ufes.br
 * extras: centos.ufes.br
 * updates: centos.ufes.br
Resolving Dependencies
--> Running transaction check
---> Package docker-ce.x86_64 3:19.03.2-3.el7 will be installed
--> Processing Dependency: container-selinux >= 2:2.74 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: containerd.io >= 1.2.2-3 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libseccomp >= 2.3 for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: docker-ce-cli for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libcgroup for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Processing Dependency: libseccomp.so.2()(64bit) for package: 3:docker-ce-19.03.2-3.el7.x86_64
--> Running transaction check
---> Package container-selinux.noarch 2:2.107-3.el7 will be installed
--> Processing Dependency: policycoreutils-python for package: 2:container-selinux-2.107-3.el7.noarch
---> Package containerd.io.x86_64 0:1.2.6-3.3.el7 will be installed
---> Package docker-ce-cli.x86_64 1:19.03.2-3.el7 will be installed
---> Package libcgroup.x86_64 0:0.41-21.el7 will be installed
---> Package libseccomp.x86_64 0:2.3.1-3.el7 will be installed
--> Running transaction check
---> Package policycoreutils-python.x86_64 0:2.5-33.el7 will be installed
--> Processing Dependency: policycoreutils = 2.5-33.el7 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: setools-libs >= 3.3.8-4 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libsemanage-python >= 2.5-14 for package: policycoreutils-python-2.5-33.el7.x86_64
```

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--> Processing Dependency: audit-libs-python >= 2.1.3-4 for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: python-IPy for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libqpol.so.1(VERS_1.4)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libqpol.so.1(VERS_1.2)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libapol.so.4(VERS_4.0)(64bit) for package:
policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: checkpolicy for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libqpol.so.1()(64bit) for package: policycoreutils-python-2.5-33.el7.x86_64
--> Processing Dependency: libapol.so.4()(64bit) for package: policycoreutils-python-2.5-33.el7.x86_64
--> Running transaction check
---> Package audit-libs-python.x86_64 0:2.8.5-4.el7 will be installed
--> Processing Dependency: audit-libs(x86-64) = 2.8.5-4.el7 for package: audit-libs-python-2.8.5-4.el7.x86_64
---> Package checkpolicy.x86_64 0:2.5-8.el7 will be installed
---> Package libsemanage-python.x86_64 0:2.5-14.el7 will be installed
---> Package policycoreutils.x86_64 0:2.5-29.el7 will be updated
---> Package policycoreutils.x86_64 0:2.5-33.el7 will be an update
---> Package python-IPy.noarch 0:0.75-6.el7 will be installed
---> Package setools-libs.x86_64 0:3.3.8-4.el7 will be installed
--> Running transaction check
---> Package audit-libs.x86_64 0:2.8.4-4.el7 will be updated
--> Processing Dependency: audit-libs(x86-64) = 2.8.4-4.el7 for package: audit-2.8.4-4.el7.x86_64
---> Package audit-libs.x86_64 0:2.8.5-4.el7 will be an update
--> Running transaction check
---> Package audit.x86_64 0:2.8.4-4.el7 will be updated
---> Package audit.x86_64 0:2.8.5-4.el7 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================================================
================================================================================================================
====================================================
 Package                                           Arch
Version                                            Repository
Size
================================================================================================================
================================================================================================================
====================================================
Installing:
 docker-ce                                         x86_64
3:19.03.2-3.el7                                    docker-ce-stable
24 M
Installing for dependencies:
 audit-libs-python                                 x86_64
2.8.5-4.el7                                        base
76 k
 checkpolicy                                       x86_64
2.5-8.el7                                          base
295 k
 container-selinux                                 noarch
2:2.107-3.el7                                      extras
39 k
 containerd.io                                     x86_64
1.2.6-3.3.el7                                      docker-ce-stable
26 M
 docker-ce-cli                                     x86_64
1:19.03.2-3.el7                                    docker-ce-stable
39 M
 libcgroup                                         x86_64
0.41-21.el7                                        base
66 k
```

```
 libseccomp                                                    x86_64
2.3.1-3.el7                                          base
56 k
 libsemanage-python                                            x86_64
2.5-14.el7                                           base
113 k
 policycoreutils-python                                        x86_64
2.5-33.el7                                           base
457 k
 python-IPy                                                    noarch
0.75-6.el7                                           base
32 k
 setools-libs                                                  x86_64
3.3.8-4.el7                                          base
620 k
Updating for dependencies:
 audit                                                         x86_64
2.8.5-4.el7                                          base
256 k
 audit-libs                                                    x86_64
2.8.5-4.el7                                          base
102 k
 policycoreutils                                               x86_64
2.5-33.el7                                           base
916 k

Transaction Summary
===============================================================================================================
===============================================================================================================
==================================================
Install  1 Package  (+11 Dependent packages)
Upgrade             (  3 Dependent packages)

Total download size: 93 M
Downloading packages:
Delta RPMs disabled because /usr/bin/applydeltarpm not installed.
(1/15): audit-libs-2.8.5-4.el7.x86_64.rpm
| 102 kB  00:00:00
(2/15): audit-libs-python-2.8.5-4.el7.x86_64.rpm
|  76 kB  00:00:00
(3/15): container-selinux-2.107-3.el7.noarch.rpm
|  39 kB  00:00:00
(4/15): checkpolicy-2.5-8.el7.x86_64.rpm
| 295 kB  00:00:02
(5/15): audit-2.8.5-4.el7.x86_64.rpm
| 256 kB  00:00:02
warning: /var/cache/yum/x86_64/7/docker-ce-stable/packages/docker-ce-19.03.2-3.el7.x86_64.rpm: Header V4
RSA/SHA512 Signature, key ID 621e9f35: NOKEY=======================================
] 549 kB/s |  49 MB  00:01:20 ETA
Public key for docker-ce-19.03.2-3.el7.x86_64.rpm is not installed
(6/15): docker-ce-19.03.2-3.el7.x86_64.rpm
|  24 MB  00:01:56
(7/15): libseccomp-2.3.1-3.el7.x86_64.rpm
|  56 kB  00:00:00
(8/15): libcgroup-0.41-21.el7.x86_64.rpm
|  66 kB  00:00:00
(9/15): libsemanage-python-2.5-14.el7.x86_64.rpm
| 113 kB  00:00:01
(10/15): python-IPy-0.75-6.el7.noarch.rpm
|  32 kB  00:00:00
(11/15): policycoreutils-python-2.5-33.el7.x86_64.rpm
| 457 kB  00:00:04
(12/15): setools-libs-3.3.8-4.el7.x86_64.rpm
| 620 kB  00:00:04
```

```
(13/15): policycoreutils-2.5-33.el7.x86_64.rpm
| 916 kB  00:00:06
(14/15): containerd.io-1.2.6-3.3.el7.x86_64.rpm
|  26 MB  00:02:05
(15/15): docker-ce-cli-19.03.2-3.el7.x86_64.rpm
|  39 MB  00:01:47
--------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------
-------------------------------------------------------
Total
421 kB/s |  93 MB  00:03:45
Retrieving key from https://download.docker.com/linux/centos/gpg
Importing GPG key 0x621E9F35:
 Userid     : "Docker Release (CE rpm) <docker@docker.com>"
 Fingerprint: 060a 61c5 1b55 8a7f 742b 77aa c52f eb6b 621e 9f35
 From       : https://download.docker.com/linux/centos/gpg
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Updating   : audit-libs-2.8.5-4.el7.x86_64
1/18
  Updating   : policycoreutils-2.5-33.el7.x86_64
2/18
  Installing : libcgroup-0.41-21.el7.x86_64
3/18
  Installing : audit-libs-python-2.8.5-4.el7.x86_64
4/18
  Installing : setools-libs-3.3.8-4.el7.x86_64
5/18
  Installing : checkpolicy-2.5-8.el7.x86_64
6/18
  Installing : libseccomp-2.3.1-3.el7.x86_64
7/18
  Installing : 1:docker-ce-cli-19.03.2-3.el7.x86_64
8/18
  Installing : libsemanage-python-2.5-14.el7.x86_64
9/18
  Installing : python-IPy-0.75-6.el7.noarch
10/18
  Installing : policycoreutils-python-2.5-33.el7.x86_64
11/18
  Installing : 2:container-selinux-2.107-3.el7.noarch
12/18
  Installing : containerd.io-1.2.6-3.3.el7.x86_64
13/18
  Installing : 3:docker-ce-19.03.2-3.el7.x86_64
14/18
  Updating   : audit-2.8.5-4.el7.x86_64
15/18
  Cleanup    : policycoreutils-2.5-29.el7.x86_64
16/18
  Cleanup    : audit-2.8.4-4.el7.x86_64
17/18
  Cleanup    : audit-libs-2.8.4-4.el7.x86_64
18/18
  Verifying  : audit-libs-2.8.5-4.el7.x86_64
1/18
  Verifying  : policycoreutils-python-2.5-33.el7.x86_64
2/18
  Verifying  : audit-2.8.5-4.el7.x86_64
3/18
  Verifying  : python-IPy-0.75-6.el7.noarch
4/18
```

```
  Verifying  : libsemanage-python-2.5-14.el7.x86_64
5/18
  Verifying  : 2:container-selinux-2.107-3.el7.noarch
6/18
  Verifying  : 1:docker-ce-cli-19.03.2-3.el7.x86_64
7/18
  Verifying  : libseccomp-2.3.1-3.el7.x86_64
8/18
  Verifying  : checkpolicy-2.5-8.el7.x86_64
9/18
  Verifying  : 3:docker-ce-19.03.2-3.el7.x86_64
10/18
  Verifying  : containerd.io-1.2.6-3.3.el7.x86_64
11/18
  Verifying  : policycoreutils-2.5-33.el7.x86_64
12/18
  Verifying  : setools-libs-3.3.8-4.el7.x86_64
13/18
  Verifying  : audit-libs-python-2.8.5-4.el7.x86_64
14/18
  Verifying  : libcgroup-0.41-21.el7.x86_64
15/18
  Verifying  : policycoreutils-2.5-29.el7.x86_64
16/18
  Verifying  : audit-2.8.4-4.el7.x86_64
17/18
  Verifying  : audit-libs-2.8.4-4.el7.x86_64
18/18

Installed:
  docker-ce.x86_64 3:19.03.2-3.el7

Dependency Installed:
  audit-libs-python.x86_64 0:2.8.5-4.el7  checkpolicy.x86_64 0:2.5-8.el7
container-selinux.noarch 2:2.107-3.el7  containerd.io.x86_64 0:1.2.6-3.3.el7  docker-ce-cli.x86_64
1:19.03.2-3.el7  libcgroup.x86_64 0:0.41-21.el7  libseccomp.x86_64 0:2.3.1-3.el7
  libsemanage-python.x86_64 0:2.5-14.el7  policycoreutils-python.x86_64 0:2.5-33.el7  python-IPy.noarch
0:0.75-6.el7        setools-libs.x86_64 0:3.3.8-4.el7

Dependency Updated:
  audit.x86_64 0:2.8.5-4.el7                                                  audit-libs.x86_64
0:2.8.5-4.el7                                                  policycoreutils.x86_64 0:2.5-33.el7

Complete!
[root@kclustert ~]# update-alternatives --set iptables /usr/sbin/iptables-legacy
[root@kclustert ~]# echo "
> [kubernetes]
> name=Kubernetes
> baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-x86_64
> enabled=1
> gpgcheck=1
> repo_gpgcheck=1
> gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg
https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
> " > /etc/yum.repos.d/kubernetes.repo
[root@kclustert ~]# cat /etc/yum.repos.d/kubernetes.repo

[kubernetes]
name=Kubernetes
baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-x86_64
enabled=1
gpgcheck=1
repo_gpgcheck=1
```

```
gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg
https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg


[root@kclustert ~]# yum install -y kubelet kubeadm kubectl --disableexcludes=kubernetes
Failed to set locale, defaulting to C
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.ufes.br
 * extras: centos.ufes.br
 * updates: centos.ufes.br
kubernetes/signature
|  454 B  00:00:00
Retrieving key from https://packages.cloud.google.com/yum/doc/yum-key.gpg
Importing GPG key 0xA7317B0F:
 Userid     : "Google Cloud Packages Automatic Signing Key <gc-team@google.com>"
 Fingerprint: d0bc 747f d8ca f711 7500 d6fa 3746 c208 a731 7b0f
 From       : https://packages.cloud.google.com/yum/doc/yum-key.gpg
Retrieving key from https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
kubernetes/signature
| 1.4 kB  00:00:00 !!!
kubernetes/primary
|  57 kB  00:00:00
kubernetes
409/409
Resolving Dependencies
--> Running transaction check
---> Package kubeadm.x86_64 0:1.16.1-0 will be installed
--> Processing Dependency: kubernetes-cni >= 0.7.5 for package: kubeadm-1.16.1-0.x86_64
--> Processing Dependency: cri-tools >= 1.13.0 for package: kubeadm-1.16.1-0.x86_64
---> Package kubectl.x86_64 0:1.16.1-0 will be installed
---> Package kubelet.x86_64 0:1.16.1-0 will be installed
--> Processing Dependency: socat for package: kubelet-1.16.1-0.x86_64
--> Processing Dependency: conntrack for package: kubelet-1.16.1-0.x86_64
--> Running transaction check
---> Package conntrack-tools.x86_64 0:1.4.4-5.el7 will be installed
--> Processing Dependency: libnetfilter_cttimeout.so.1(LIBNETFILTER_CTTIMEOUT_1.1)(64bit) for package:
conntrack-tools-1.4.4-5.el7.x86_64
--> Processing Dependency: libnetfilter_cttimeout.so.1(LIBNETFILTER_CTTIMEOUT_1.0)(64bit) for package:
conntrack-tools-1.4.4-5.el7.x86_64
--> Processing Dependency: libnetfilter_cthelper.so.0(LIBNETFILTER_CTHELPER_1.0)(64bit) for package:
conntrack-tools-1.4.4-5.el7.x86_64
--> Processing Dependency: libnetfilter_queue.so.1()(64bit) for package: conntrack-tools-1.4.4-5.el7.x86_64
--> Processing Dependency: libnetfilter_cttimeout.so.1()(64bit) for package:
conntrack-tools-1.4.4-5.el7.x86_64
--> Processing Dependency: libnetfilter_cthelper.so.0()(64bit) for package:
conntrack-tools-1.4.4-5.el7.x86_64
---> Package cri-tools.x86_64 0:1.13.0-0 will be installed
---> Package kubernetes-cni.x86_64 0:0.7.5-0 will be installed
---> Package socat.x86_64 0:1.7.3.2-2.el7 will be installed
--> Running transaction check
---> Package libnetfilter_cthelper.x86_64 0:1.0.0-10.el7 will be installed
---> Package libnetfilter_cttimeout.x86_64 0:1.0.0-6.el7 will be installed
---> Package libnetfilter_queue.x86_64 0:1.0.2-2.el7_2 will be installed
--> Finished Dependency Resolution


Dependencies Resolved


================================================================================================================
================================================================================================================
===================================================
 Package                                                      Arch
Version                                                   Repository
Size
```

```
================================================================================================
================================================================================================
======================================================
Installing:
 kubeadm                                                       x86_64
1.16.1-0                                            kubernetes
9.5 M
 kubectl                                                       x86_64
1.16.1-0                                            kubernetes
10 M
 kubelet                                                       x86_64
1.16.1-0                                            kubernetes
22 M
Installing for dependencies:
 conntrack-tools                                               x86_64
1.4.4-5.el7                                         base
187 k
 cri-tools                                                     x86_64
1.13.0-0                                            kubernetes
5.1 M
 kubernetes-cni                                                x86_64
0.7.5-0                                             kubernetes
10 M
 libnetfilter_cthelper                                         x86_64
1.0.0-10.el7                                        base
18 k
 libnetfilter_cttimeout                                        x86_64
1.0.0-6.el7                                         base
18 k
 libnetfilter_queue                                            x86_64
1.0.2-2.el7_2                                       base
23 k
 socat                                                         x86_64
1.7.3.2-2.el7                                       base
290 k


Transaction Summary
================================================================================================
================================================================================================
======================================================
Install  3 Packages (+7 Dependent packages)

Total download size: 57 M
Installed size: 262 M
Downloading packages:
(1/10): conntrack-tools-1.4.4-5.el7.x86_64.rpm
| 187 kB  00:00:01
warning:
/var/cache/yum/x86_64/7/kubernetes/packages/14bfe6e75a9efc8eca3f638eb22c7e2ce759c67f95b43b16fae4ebabde1549f3-
cri-tools-1.13.0-0.x86_64.rpm: Header V4 RSA/SHA512 Signature, key ID 3e1ba8d5: NOKEY
] 386 kB/s |  10 MB  00:02:05 ETA
Public key for 14bfe6e75a9efc8eca3f638eb22c7e2ce759c67f95b43b16fae4ebabde1549f3-cri-tools-1.13.0-0.x86_64.rpm
is not installed
(2/10): 14bfe6e75a9efc8eca3f638eb22c7e2ce759c67f95b43b16fae4ebabde1549f3-cri-tools-1.13.0-0.x86_64.rpm
| 5.1 MB  00:00:27
(3/10): a137f796adacb1e9e52b1a46faaf5406bfca203314708067c7d0f18076d5f949-kubeadm-1.16.1-0.x86_64.rpm
| 9.5 MB  00:00:56
(4/10): 9c569e36042bf917f770648feb2c515c1ef90cee2de2d599652166593373150c-kubectl-1.16.1-0.x86_64.rpm
|  10 MB  00:01:00
(5/10): libnetfilter_cttimeout-1.0.0-6.el7.x86_64.rpm
|  18 kB  00:00:00
(6/10): libnetfilter_cthelper-1.0.0-10.el7.x86_64.rpm
|  18 kB  00:00:00
```

```
(7/10): libnetfilter_queue-1.0.2-2.el7_2.x86_64.rpm
|  23 kB   00:00:00
(8/10): socat-1.7.3.2-2.el7.x86_64.rpm
| 290 kB   00:00:02
(9/10): 548a0dcd865c16a50980420ddfa5fbccb8b59621179798e6dc905c9bf8af3b34-kubernetes-cni-0.7.5-0.x86_64.rpm
|  10 MB   00:00:52
(10/10): 5c2055ea4f698f2cfe8ee777e3fdb27be95161175cea21cd914bd7d28c299e09-kubelet-1.16.1-0.x86_64.rpm
|  22 MB   00:01:53
--------------------------------------------------------------------------------------------------------
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------------------------------------------------------
Total
346 kB/s |  57 MB   00:02:49
Retrieving key from https://packages.cloud.google.com/yum/doc/yum-key.gpg
Importing GPG key 0xA7317B0F:
 Userid     : "Google Cloud Packages Automatic Signing Key <gc-team@google.com>"
 Fingerprint: d0bc 747f d8ca f711 7500 d6fa 3746 c208 a731 7b0f
 From       : https://packages.cloud.google.com/yum/doc/yum-key.gpg
Retrieving key from https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
Importing GPG key 0x3E1BA8D5:
 Userid     : "Google Cloud Packages RPM Signing Key <gc-team@google.com>"
 Fingerprint: 3749 e1ba 95a8 6ce0 5454 6ed2 f09c 394c 3e1b a8d5
 From       : https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : libnetfilter_cthelper-1.0.0-10.el7.x86_64
1/10
  Installing : socat-1.7.3.2-2.el7.x86_64
2/10
  Installing : libnetfilter_queue-1.0.2-2.el7_2.x86_64
3/10
  Installing : cri-tools-1.13.0-0.x86_64
4/10
  Installing : kubectl-1.16.1-0.x86_64
5/10
  Installing : libnetfilter_cttimeout-1.0.0-6.el7.x86_64
6/10
  Installing : conntrack-tools-1.4.4-5.el7.x86_64
7/10
  Installing : kubernetes-cni-0.7.5-0.x86_64
8/10
  Installing : kubelet-1.16.1-0.x86_64
9/10
  Installing : kubeadm-1.16.1-0.x86_64
10/10
  Verifying  : libnetfilter_cttimeout-1.0.0-6.el7.x86_64
1/10
  Verifying  : kubeadm-1.16.1-0.x86_64
2/10
  Verifying  : kubectl-1.16.1-0.x86_64
3/10
  Verifying  : conntrack-tools-1.4.4-5.el7.x86_64
4/10
  Verifying  : cri-tools-1.13.0-0.x86_64
5/10
  Verifying  : libnetfilter_queue-1.0.2-2.el7_2.x86_64
6/10
  Verifying  : kubernetes-cni-0.7.5-0.x86_64
7/10
  Verifying  : socat-1.7.3.2-2.el7.x86_64
8/10
```

```
  Verifying  : kubelet-1.16.1-0.x86_64
9/10
  Verifying  : libnetfilter_cthelper-1.0.0-10.el7.x86_64
10/10

Installed:
  kubeadm.x86_64 0:1.16.1-0                                                    kubectl.x86_64
0:1.16.1-0                                                    kubelet.x86_64 0:1.16.1-0

Dependency Installed:
  conntrack-tools.x86_64 0:1.4.4-5.el7   cri-tools.x86_64 0:1.13.0-0   kubernetes-cni.x86_64 0:0.7.5-0
libnetfilter_cthelper.x86_64 0:1.0.0-10.el7   libnetfilter_cttimeout.x86_64 0:1.0.0-6.el7
libnetfilter_queue.x86_64 0:1.0.2-2.el7_2   socat.x86_64 0:1.7.3.2-2.el7

Complete!
[root@kclustert ~]# modprobe br_netfilter
[root@kclustert ~]# echo "
> net.bridge.bridge-nf-call-ip6tables = 1
> net.bridge.bridge-nf-call-iptables = 1
> " >> /etc/sysctl.d/k8s.conf
[root@kclustert ~]#
[root@kclustert ~]# cat /etc/sysctl.d/k8s.conf

net.bridge.bridge-nf-call-ip6tables = 1
net.bridge.bridge-nf-call-iptables = 1

[root@kclustert ~]# sysctl --system
* Applying /usr/lib/sysctl.d/00-system.conf ...
net.bridge.bridge-nf-call-ip6tables = 0
net.bridge.bridge-nf-call-iptables = 0
net.bridge.bridge-nf-call-arptables = 0
* Applying /usr/lib/sysctl.d/10-default-yama-scope.conf ...
kernel.yama.ptrace_scope = 0
* Applying /usr/lib/sysctl.d/50-default.conf ...
kernel.sysrq = 16
kernel.core_uses_pid = 1
net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.all.rp_filter = 1
net.ipv4.conf.default.accept_source_route = 0
net.ipv4.conf.all.accept_source_route = 0
net.ipv4.conf.default.promote_secondaries = 1
net.ipv4.conf.all.promote_secondaries = 1
fs.protected_hardlinks = 1
fs.protected_symlinks = 1
* Applying /etc/sysctl.d/99-sysctl.conf ...
* Applying /etc/sysctl.d/k8s.conf ...
net.bridge.bridge-nf-call-ip6tables = 1
net.bridge.bridge-nf-call-iptables = 1
* Applying /etc/sysctl.conf ...
[root@kclustert ~]# cat > /etc/docker/daemon.json <<EOF
> {
>   "exec-opts": ["native.cgroupdriver=systemd"],
>   "log-driver": "json-file",
>   "log-opts": {
>     "max-size": "100m"
>   },
>   "storage-driver": "overlay2",
>   "storage-opts": [
>     "overlay2.override_kernel_check=true"
>   ]
> }
> EOF
-bash: /etc/docker/daemon.json: No such file or directory
[root@kclustert ~]# mkdir /etc/docker
```

```
[root@kclustert ~]# cat > /etc/docker/daemon.json <<EOF
> {
>   "exec-opts": ["native.cgroupdriver=systemd"],
>   "log-driver": "json-file",
>   "log-opts": {
>     "max-size": "100m"
>   },
>   "storage-driver": "overlay2",
>   "storage-opts": [
>     "overlay2.override_kernel_check=true"
>   ]
> }
> EOF
[root@kclustert ~]# mkdir -p /etc/systemd/system/docker.service.d
[root@kclustert ~]# systemctl daemon-reload
[root@kclustert ~]# systemctl restart docker
[root@kclustert ~]# systemctl enable docker
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to
/usr/lib/systemd/system/docker.service.
[root@kclustert ~]# systemctl stop firewalld
[root@kclustert ~]# systemctl disable firewalld
Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.
Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]# kubeadm init --apiserver-advertise-address=10.0.0.98 --pod-network-cidr=192.168.0.0/16
[init] Using Kubernetes version: v1.16.1
[preflight] Running pre-flight checks
        [WARNING SystemVerification]: this Docker version is not on the list of validated versions: 19.03.2.
Latest validated version: 18.09
        [WARNING Service-Kubelet]: kubelet service is not enabled, please run 'systemctl enable
kubelet.service'
[preflight] Pulling images required for setting up a Kubernetes cluster
[preflight] This might take a minute or two, depending on the speed of your internet connection
[preflight] You can also perform this action in beforehand using 'kubeadm config images pull'
[kubelet-start] Writing kubelet environment file with flags to file "/var/lib/kubelet/kubeadm-flags.env"
[kubelet-start] Writing kubelet configuration to file "/var/lib/kubelet/config.yaml"
[kubelet-start] Activating the kubelet service
[certs] Using certificateDir folder "/etc/kubernetes/pki"
[certs] Generating "ca" certificate and key
[certs] Generating "apiserver" certificate and key
[certs] apiserver serving cert is signed for DNS names [kclustert.home.net kubernetes kubernetes.default
kubernetes.default.svc kubernetes.default.svc.cluster.local] and IPs [10.96.0.1 10.0.0.98]
[certs] Generating "apiserver-kubelet-client" certificate and key
[certs] Generating "front-proxy-ca" certificate and key
[certs] Generating "front-proxy-client" certificate and key
[certs] Generating "etcd/ca" certificate and key
[certs] Generating "etcd/server" certificate and key
[certs] etcd/server serving cert is signed for DNS names [kclustert.home.net localhost] and IPs [10.0.0.98
127.0.0.1 ::1]
[certs] Generating "etcd/peer" certificate and key
[certs] etcd/peer serving cert is signed for DNS names [kclustert.home.net localhost] and IPs [10.0.0.98
127.0.0.1 ::1]
[certs] Generating "etcd/healthcheck-client" certificate and key
[certs] Generating "apiserver-etcd-client" certificate and key
[certs] Generating "sa" key and public key
[kubeconfig] Using kubeconfig folder "/etc/kubernetes"
[kubeconfig] Writing "admin.conf" kubeconfig file
[kubeconfig] Writing "kubelet.conf" kubeconfig file
[kubeconfig] Writing "controller-manager.conf" kubeconfig file
[kubeconfig] Writing "scheduler.conf" kubeconfig file
```

```
[control-plane] Using manifest folder "/etc/kubernetes/manifests"
[control-plane] Creating static Pod manifest for "kube-apiserver"
[control-plane] Creating static Pod manifest for "kube-controller-manager"
[control-plane] Creating static Pod manifest for "kube-scheduler"
[etcd] Creating static Pod manifest for local etcd in "/etc/kubernetes/manifests"
[wait-control-plane] Waiting for the kubelet to boot up the control plane as static Pods from directory
"/etc/kubernetes/manifests". This can take up to 4m0s
[apiclient] All control plane components are healthy after 36.003765 seconds
[upload-config] Storing the configuration used in ConfigMap "kubeadm-config" in the "kube-system" Namespace
[kubelet] Creating a ConfigMap "kubelet-config-1.16" in namespace kube-system with the configuration for the
kubelets in the cluster
[upload-certs] Skipping phase. Please see --upload-certs
[mark-control-plane] Marking the node kclustert.home.net as control-plane by adding the label
"node-role.kubernetes.io/master=''"
[mark-control-plane] Marking the node kclustert.home.net as control-plane by adding the taints
[node-role.kubernetes.io/master:NoSchedule]
[bootstrap-token] Using token: 4q75zx.odiftv6pipj930od
[bootstrap-token] Configuring bootstrap tokens, cluster-info ConfigMap, RBAC Roles
[bootstrap-token] configured RBAC rules to allow Node Bootstrap tokens to post CSRs in order for nodes to get
long term certificate credentials
[bootstrap-token] configured RBAC rules to allow the csrapprover controller automatically approve CSRs from a
Node Bootstrap Token
[bootstrap-token] configured RBAC rules to allow certificate rotation for all node client certificates in the
cluster
[bootstrap-token] Creating the "cluster-info" ConfigMap in the "kube-public" namespace
[addons] Applied essential addon: CoreDNS
[addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!

To start using your cluster, you need to run the following as a regular user:

  mkdir -p $HOME/.kube
  sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
  sudo chown $(id -u):$(id -g) $HOME/.kube/config

You should now deploy a pod network to the cluster.
Run "kubectl apply -f [podnetwork].yaml" with one of the options listed at:
  https://kubernetes.io/docs/concepts/cluster-administration/addons/

Then you can join any number of worker nodes by running the following on each as root:

kubeadm join 10.0.0.98:6443 --token 4q75zx.odiftv6pipj930od \
    --discovery-token-ca-cert-hash sha256:0af056951bebd653c32e9628c6be88a54b4eb96d56daa309bd72768879a79ee0
[root@kclustert ~]#
```

Calico Installation

```
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]#
[root@kclustert ~]# kubectl apply -f https://docs.projectcalico.org/v3.9/manifests/calico.yaml
configmap/calico-config created
customresourcedefinition.apiextensions.k8s.io/felixconfigurations.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/ipamblocks.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/blockaffinities.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/ipamhandles.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/ipamconfigs.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/bgppeers.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/bgpconfigurations.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/ippools.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/hostendpoints.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/clusterinformations.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/globalnetworkpolicies.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/globalnetworksets.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/networkpolicies.crd.projectcalico.org created
customresourcedefinition.apiextensions.k8s.io/networksets.crd.projectcalico.org created
clusterrole.rbac.authorization.k8s.io/calico-kube-controllers created
clusterrolebinding.rbac.authorization.k8s.io/calico-kube-controllers created
clusterrole.rbac.authorization.k8s.io/calico-node created
clusterrolebinding.rbac.authorization.k8s.io/calico-node created
daemonset.apps/calico-node created
serviceaccount/calico-node created
deployment.apps/calico-kube-controllers created
serviceaccount/calico-kube-controllers created


[root@kclustert ~]# kubectl get pods --all-namespaces
NAMESPACE     NAME                                          READY   STATUS    RESTARTS   AGE
kube-system   calico-kube-controllers-b7fb7899c-6vpfq       1/1     Running   0          7m57s
kube-system   calico-node-slhpx                             1/1     Running   0          7m57s
kube-system   coredns-5644d7b6d9-gn9qw                      1/1     Running   0          13m
kube-system   coredns-5644d7b6d9-h8p9k                      1/1     Running   0          13m
kube-system   etcd-kclustert.home.net                       1/1     Running   0          12m
kube-system   kube-apiserver-kclustert.home.net             1/1     Running   0          12m
kube-system   kube-controller-manager-kclustert.home.net    1/1     Running   0          12m
kube-system   kube-proxy-zflxj                              1/1     Running   0          13m
kube-system   kube-scheduler-kclustert.home.net             1/1     Running   0          12m


.. after pod join the cluster.


[root@kclustert ~]# kubectl get pods --all-namespaces
NAMESPACE     NAME                                          READY   STATUS    RESTARTS   AGE
kube-system   calico-kube-controllers-b7fb7899c-6vpfq       1/1     Running   0          74m
kube-system   calico-node-b5bzr                             1/1     Running   0          52m
kube-system   calico-node-slhpx                             1/1     Running   0          74m
kube-system   coredns-5644d7b6d9-gn9qw                      1/1     Running   0          79m
kube-system   coredns-5644d7b6d9-h8p9k                      1/1     Running   0          79m
kube-system   etcd-kclustert.home.net                       1/1     Running   0          78m
kube-system   kube-apiserver-kclustert.home.net             1/1     Running   0          78m
kube-system   kube-controller-manager-kclustert.home.net    1/1     Running   0          78m
kube-system   kube-proxy-4bj7w                              1/1     Running   0          52m
kube-system   kube-proxy-zflxj                              1/1     Running   0          79m
kube-system   kube-scheduler-kclustert.home.net             1/1     Running   0          78m
```