Authenticating with public key "Imported-Openssh-Key:
C:\\Users\\kaliram.sahu\\Downloads\\ram-aws.pem"

```
                         · MobaXterm Professional v21.0 ·
                  (SSH client, X server and network tools)

   ➤ SSH session to ubuntu@54.218.59.120
     · Direct SSH       :  ✔
     · SSH compression :  ✔
     · SSH-browser      :  ✔
     · X11-forwarding  :  ✔    (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 5.4.0-1045-aws x86_64)

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

  System information as of Wed Oct 13 08:38:32 UTC 2021

  System load: 0.56   Processes: 200
  Usage of /: 1.2% of 96.88GB Users logged in: 0
  Memory usage: 0%   IP address for eth0: 172.31.20.46
  Swap usage: 0%

0 packages can be updated.
0 of these updates are security updates.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

/usr/bin/xauth: file /home/ubuntu/.Xauthority does not exist
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-20-46:~$ uname -a
Linux ip-172-31-20-46 5.4.0-1045-aws #47~18.04.1-Ubuntu SMP Tue Apr 13 15:58:14
UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
ubuntu@ip-172-31-20-46:~$ wget
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
--2021-10-13 08:39:23--
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.111.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com

```
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 791 [text/plain]
Saving to: 'kernelupdate.sh'

kernelupdate.sh
100%[================================================================
==================>]     791  --.-KB/s    in 0s

2021-10-13 08:39:23 (37.0 MB/s) - 'kernelupdate.sh' saved [791/791]

ubuntu@ip-172-31-20-46:~$ sudo bash kernelupdate.sh
--2021-10-13 08:39:24--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-headers-5.6.0-rc2_5.6.0-rc2-1
_amd64.deb
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.216.112.35
Connecting to mizar.s3.amazonaws.com
(mizar.s3.amazonaws.com)|52.216.112.35|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 7621020 (7.3M) []
Saving to: '../linux-5.6-rc2/linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd64.deb'

linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd64.de
100%[================================================================
==================>]   7.27M  5.17MB/s    in 1.4s

2021-10-13 08:39:26 (5.17 MB/s) - '../linux-
5.6-rc2/linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd64.deb' saved [7621020/7621020]

--2021-10-13 08:39:26--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-image-5.6.0-rc2-dbg_5.6.0-rc2
-1_amd64.deb
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.217.196.41
Connecting to mizar.s3.amazonaws.com
(mizar.s3.amazonaws.com)|52.217.196.41|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 857827912 (818M) [application/x-www-form-urlencoded]
Saving to: '../linux-5.6-rc2/linux-image-5.6.0-rc2-dbg_5.6.0-rc2-1_amd64.deb'

linux-image-5.6.0-rc2-dbg_5.6.0-rc2-1_amd64.
100%[================================================================
==================>] 818.09M  4.32MB/s    in 1m 42s

2021-10-13 08:41:09 (8.01 MB/s) - '../linux-
5.6-rc2/linux-image-5.6.0-rc2-dbg_5.6.0-rc2-1_amd64.deb' saved
[857827912/857827912]

--2021-10-13 08:41:09--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-image-5.6.0-rc2_5.6.0-rc2-1_a
md64.deb
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.216.30.36
Connecting to mizar.s3.amazonaws.com
(mizar.s3.amazonaws.com)|52.216.30.36|:443... connected.
HTTP request sent, awaiting response... 200 OK
```

```
Length: 56427036 (54M) [application/x-www-form-urlencoded]
Saving to: '../linux-5.6-rc2/linux-image-5.6.0-rc2_5.6.0-rc2-1_amd64.deb'

linux-image-5.6.0-rc2_5.6.0-rc2-1_amd64.deb
100%[=================================================================================
====================>]  53.81M  6.92MB/s    in 8.3s

2021-10-13 08:41:17 (6.50 MB/s) - '../linux-
5.6-rc2/linux-image-5.6.0-rc2_5.6.0-rc2-1_amd64.deb' saved [56427036/56427036]

--2021-10-13 08:41:17--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-libc-dev_5.6.0-rc2-1_amd64.de
b
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.217.200.105
Connecting to mizar.s3.amazonaws.com
(mizar.s3.amazonaws.com)|52.217.200.105|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1082248 (1.0M) []
Saving to: '../linux-5.6-rc2/linux-libc-dev_5.6.0-rc2-1_amd64.deb'

linux-libc-dev_5.6.0-rc2-1_amd64.deb
100%[=================================================================================
====================>]   1.03M  2.61MB/s    in 0.4s

2021-10-13 08:41:18 (2.61 MB/s) - '../linux-
5.6-rc2/linux-libc-dev_5.6.0-rc2-1_amd64.deb' saved [1082248/1082248]

Continue kernel update (y/n)?y
Updating kernel
Selecting previously unselected package linux-headers-5.6.0-rc2.
(Reading database ... 57240 files and directories currently installed.)
Preparing to unpack .../linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd64.deb ...
Unpacking linux-headers-5.6.0-rc2 (5.6.0-rc2-1) ...
Selecting previously unselected package linux-image-5.6.0-rc2-dbg.
Preparing to unpack .../linux-image-5.6.0-rc2-dbg_5.6.0-rc2-1_amd64.deb ...
Unpacking linux-image-5.6.0-rc2-dbg (5.6.0-rc2-1) ...
Selecting previously unselected package linux-image-5.6.0-rc2.
Preparing to unpack .../linux-image-5.6.0-rc2_5.6.0-rc2-1_amd64.deb ...
Unpacking linux-image-5.6.0-rc2 (5.6.0-rc2-1) ...
Selecting previously unselected package linux-libc-dev:amd64.
Preparing to unpack .../linux-libc-dev_5.6.0-rc2-1_amd64.deb ...
Unpacking linux-libc-dev:amd64 (5.6.0-rc2-1) ...
Setting up linux-headers-5.6.0-rc2 (5.6.0-rc2-1) ...
Setting up linux-image-5.6.0-rc2-dbg (5.6.0-rc2-1) ...
Setting up linux-image-5.6.0-rc2 (5.6.0-rc2-1) ...
update-initramfs: Generating /boot/initrd.img-5.6.0-rc2
Sourcing file `/etc/default/grub'
Sourcing file `/etc/default/grub.d/50-cloudimg-settings.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-5.6.0-rc2
Found initrd image: /boot/initrd.img-5.6.0-rc2
Found linux image: /boot/vmlinuz-5.4.0-1045-aws
Found initrd image: /boot/initrd.img-5.4.0-1045-aws
done
```

Setting up linux-libc-dev:amd64 (5.6.0-rc2-1) ...
Reboot host (y/n)?y
Rebooting

Remote side unexpectedly closed network connection

_____
_____
_____

Session stopped
    - Press <return> to exit tab
    - Press R to restart session
    - Press S to save terminal output to file
Authenticating with public key "Imported-Openssh-Key:
C:\\Users\\kaliram.sahu\\Downloads\\ram-aws.pem"

```
                         · MobaXterm Professional v21.0 ·
                  (SSH client, X server and network tools)

    ➤ SSH session to ubuntu@54.218.59.120
      · Direct SSH       :  ✔
      · SSH compression :  ✔
      · SSH-browser      :  ✔
      · X11-forwarding   :  ✔   (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 Wed Oct 13 08:45:00 UTC 2021

  System load: 0.41   Processes: 167
  Usage of /:   8.3% of 96.88GB   Users logged in: 0
  Memory usage: 0%   IP address for eth0: 172.31.20.46
  Swap usage: 0%

0 packages can be updated.
0 of these updates are security updates.

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

Last login: Wed Oct 13 08:38:33 2021 from 114.143.207.106
ubuntu@ip-172-31-20-46:~$ git clone https://github.com/CentaurusInfra/arktos.git
~/go/src/k8s.io/arktos
Cloning into '/home/ubuntu/go/src/k8s.io/arktos'...

```
remote: Enumerating objects: 104097, done.
remote: Counting objects: 100% (655/655), done.
remote: Compressing objects: 100% (438/438), done.
remote: Total 104097 (delta 290), reused 381 (delta 194), pack-reused 103442
Receiving objects: 100% (104097/104097), 208.18 MiB | 25.95 MiB/s, done.
Resolving deltas: 100% (62784/62784), done.
Checking out files: 100% (20761/20761), done.
ubuntu@ip-172-31-20-46:~$ sudo bash
$HOME/go/src/k8s.io/arktos/hack/setup-dev-node.sh
The script is to help install prerequisites of Arktos development environment
on a fresh Linux installation.
It's been tested on Ubuntu 16.04 LTS and 18.04 LTS.
Update apt.
Hit:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic InRelease
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates InRelease
[88.7 kB]
Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-backports InRelease
[74.6 kB]
Get:4 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64
Packages [8570 kB]
Get:5 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:6 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe
Translation-en [4941 kB]
Get:7 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/multiverse amd64
Packages [151 kB]
Get:8 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/multiverse
Translation-en [108 kB]
Get:9 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
Packages [2251 kB]
Get:10 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main
Translation-en [438 kB]
Get:11 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted
amd64 Packages [493 kB]
Get:12 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted
Translation-en [66.9 kB]
Get:13 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe
amd64 Packages [1756 kB]
Get:14 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe
Translation-en [377 kB]
Get:15 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/multiverse
amd64 Packages [27.3 kB]
Get:16 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/multiverse
Translation-en [6808 B]
Get:17 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-backports/main
amd64 Packages [10.0 kB]
Get:18 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-backports/main
Translation-en [4764 B]
Get:19 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-backports/universe
amd64 Packages [10.3 kB]
Get:20 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-backports/universe
Translation-en [4588 B]
Get:21 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages
[1906 kB]
Get:22 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en
```

```
[346 kB]
Get:23 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64
Packages [469 kB]
Get:24 http://security.ubuntu.com/ubuntu bionic-security/restricted
Translation-en [63.2 kB]
Get:25 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages
[1141 kB]
Get:26 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en
[261 kB]
Get:27 http://security.ubuntu.com/ubuntu bionic-security/multiverse amd64
Packages [20.9 kB]
Get:28 http://security.ubuntu.com/ubuntu bionic-security/multiverse
Translation-en [4732 B]
Fetched 23.7 MB in 6s (4014 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
89 packages can be upgraded. Run 'apt list --upgradable' to see them.
Install docker.
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  bridge-utils containerd pigz runc ubuntu-fan
Suggested packages:
  ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rinse
zfs-fuse | zfsutils
The following NEW packages will be installed:
  bridge-utils containerd docker.io pigz runc ubuntu-fan
0 upgraded, 6 newly installed, 0 to remove and 89 not upgraded.
Need to get 74.0 MB of archives.
After this operation, 359 MB of additional disk space will be used.
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64 pigz
amd64 2.4-1 [57.4 kB]
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64
bridge-utils amd64 1.5-15ubuntu1 [30.1 kB]
Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe
amd64 runc amd64 1.0.0~rc95-0ubuntu1~18.04.2 [4087 kB]
Get:4 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe
amd64 containerd amd64 1.5.2-0ubuntu1~18.04.3 [32.8 MB]
Get:5 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe
amd64 docker.io amd64 20.10.7-0ubuntu1~18.04.2 [36.9 MB]
Get:6 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64
ubuntu-fan all 0.12.10 [34.7 kB]
Fetched 74.0 MB in 2s (47.7 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 88826 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.4-1_amd64.deb ...
Unpacking pigz (2.4-1) ...
Selecting previously unselected package bridge-utils.
Preparing to unpack .../1-bridge-utils_1.5-15ubuntu1_amd64.deb ...
Unpacking bridge-utils (1.5-15ubuntu1) ...
Selecting previously unselected package runc.
```

```
Preparing to unpack .../2-runc_1.0.0~rc95-0ubuntu1~18.04.2_amd64.deb ...
Unpacking runc (1.0.0~rc95-0ubuntu1~18.04.2) ...
Selecting previously unselected package containerd.
Preparing to unpack .../3-containerd_1.5.2-0ubuntu1~18.04.3_amd64.deb ...
Unpacking containerd (1.5.2-0ubuntu1~18.04.3) ...
Selecting previously unselected package docker.io.
Preparing to unpack .../4-docker.io_20.10.7-0ubuntu1~18.04.2_amd64.deb ...
Unpacking docker.io (20.10.7-0ubuntu1~18.04.2) ...
Selecting previously unselected package ubuntu-fan.
Preparing to unpack .../5-ubuntu-fan_0.12.10_all.deb ...
Unpacking ubuntu-fan (0.12.10) ...
Setting up runc (1.0.0~rc95-0ubuntu1~18.04.2) ...
Setting up containerd (1.5.2-0ubuntu1~18.04.3) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service →
/lib/systemd/system/containerd.service.
Setting up bridge-utils (1.5-15ubuntu1) ...
Setting up ubuntu-fan (0.12.10) ...
Created symlink /etc/systemd/system/multi-user.target.wants/ubuntu-fan.service →
/lib/systemd/system/ubuntu-fan.service.
Setting up pigz (2.4-1) ...
Setting up docker.io (20.10.7-0ubuntu1~18.04.2) ...
Adding group `docker' (GID 115) ...
Done.
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service →
/lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket →
/lib/systemd/system/docker.socket.
Processing triggers for systemd (237-3ubuntu10.46) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for ureadahead (0.100.0-21) ...
Install make & gcc.
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  make-doc
The following NEW packages will be installed:
  make
0 upgraded, 1 newly installed, 0 to remove and 89 not upgraded.
Need to get 154 kB of archives.
After this operation, 381 kB of additional disk space will be used.
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 make
amd64 4.1-9.1ubuntu1 [154 kB]
Fetched 154 kB in 0s (14.9 MB/s)
Selecting previously unselected package make.
(Reading database ... 89149 files and directories currently installed.)
Preparing to unpack .../make_4.1-9.1ubuntu1_amd64.deb ...
Unpacking make (4.1-9.1ubuntu1) ...
Setting up make (4.1-9.1ubuntu1) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
```

```
    binutils binutils-common binutils-x86-64-linux-gnu cpp cpp-7 gcc-7 gcc-7-base
libasan4 libatomic1 libbinutils libc-dev-bin libc6-dev libcc1-0 libcilkrts5
libgcc-7-dev libgomp1
    libisl19 libitm1 liblsan0 libmpc3 libmpx2 libquadmath0 libtsan0 libubsan0
manpages-dev
Suggested packages:
    binutils-doc cpp-doc gcc-7-locales gcc-multilib autoconf automake libtool flex
bison gdb gcc-doc gcc-7-multilib gcc-7-doc libgcc1-dbg libgomp1-dbg libitm1-dbg
libatomic1-dbg
    libasan4-dbg liblsan0-dbg libtsan0-dbg libubsan0-dbg libcilkrts5-dbg
libmpx2-dbg libquadmath0-dbg glibc-doc
The following NEW packages will be installed:
    binutils binutils-common binutils-x86-64-linux-gnu cpp cpp-7 gcc gcc-7
gcc-7-base libasan4 libatomic1 libbinutils libc-dev-bin libc6-dev libcc1-0
libcilkrts5 libgcc-7-dev
    libgomp1 libisl19 libitm1 liblsan0 libmpc3 libmpx2 libquadmath0 libtsan0
libubsan0 manpages-dev
0 upgraded, 26 newly installed, 0 to remove and 89 not upgraded.
Need to get 29.6 MB of archives.
After this operation, 112 MB of additional disk space will be used.
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
binutils-common amd64 2.30-21ubuntu1~18.04.5 [197 kB]
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libbinutils amd64 2.30-21ubuntu1~18.04.5 [489 kB]
Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
binutils-x86-64-linux-gnu amd64 2.30-21ubuntu1~18.04.5 [1839 kB]
Get:4 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
binutils amd64 2.30-21ubuntu1~18.04.5 [3388 B]
Get:5 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
gcc-7-base amd64 7.5.0-3ubuntu1~18.04 [18.3 kB]
Get:6 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libisl19
amd64 0.19-1 [551 kB]
Get:7 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libmpc3
amd64 1.1.0-1 [40.8 kB]
Get:8 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
cpp-7 amd64 7.5.0-3ubuntu1~18.04 [8591 kB]
Get:9 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
cpp amd64 4:7.4.0-1ubuntu2.3 [27.7 kB]
Get:10 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libcc1-0 amd64 8.4.0-1ubuntu1~18.04 [39.4 kB]
Get:11 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libgomp1 amd64 8.4.0-1ubuntu1~18.04 [76.5 kB]
Get:12 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libitm1 amd64 8.4.0-1ubuntu1~18.04 [27.9 kB]
Get:13 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libatomic1 amd64 8.4.0-1ubuntu1~18.04 [9192 B]
Get:14 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libasan4 amd64 7.5.0-3ubuntu1~18.04 [358 kB]
Get:15 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
liblsan0 amd64 8.4.0-1ubuntu1~18.04 [133 kB]
Get:16 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libtsan0 amd64 8.4.0-1ubuntu1~18.04 [288 kB]
Get:17 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libubsan0 amd64 7.5.0-3ubuntu1~18.04 [126 kB]
```

```
Get:18 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libcilkrts5 amd64 7.5.0-3ubuntu1~18.04 [42.5 kB]
Get:19 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libmpx2 amd64 8.4.0-1ubuntu1~18.04 [11.6 kB]
Get:20 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libquadmath0 amd64 8.4.0-1ubuntu1~18.04 [134 kB]
Get:21 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libgcc-7-dev amd64 7.5.0-3ubuntu1~18.04 [2378 kB]
Get:22 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
gcc-7 amd64 7.5.0-3ubuntu1~18.04 [9381 kB]
Get:23 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
gcc amd64 4:7.4.0-1ubuntu2.3 [5184 B]
Get:24 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libc-dev-bin amd64 2.27-3ubuntu1.4 [71.8 kB]
Get:25 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libc6-dev amd64 2.27-3ubuntu1.4 [2585 kB]
Get:26 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64
manpages-dev all 4.15-1 [2217 kB]
Fetched 29.6 MB in 1s (54.0 MB/s)
Selecting previously unselected package binutils-common:amd64.
(Reading database ... 89165 files and directories currently installed.)
Preparing to unpack .../00-binutils-common_2.30-21ubuntu1~18.04.5_amd64.deb ...
Unpacking binutils-common:amd64 (2.30-21ubuntu1~18.04.5) ...
Selecting previously unselected package libbinutils:amd64.
Preparing to unpack .../01-libbinutils_2.30-21ubuntu1~18.04.5_amd64.deb ...
Unpacking libbinutils:amd64 (2.30-21ubuntu1~18.04.5) ...
Selecting previously unselected package binutils-x86-64-linux-gnu.
Preparing to unpack
.../02-binutils-x86-64-linux-gnu_2.30-21ubuntu1~18.04.5_amd64.deb ...
Unpacking binutils-x86-64-linux-gnu (2.30-21ubuntu1~18.04.5) ...
Selecting previously unselected package binutils.
Preparing to unpack .../03-binutils_2.30-21ubuntu1~18.04.5_amd64.deb ...
Unpacking binutils (2.30-21ubuntu1~18.04.5) ...
Selecting previously unselected package gcc-7-base:amd64.
Preparing to unpack .../04-gcc-7-base_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking gcc-7-base:amd64 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package libisl19:amd64.
Preparing to unpack .../05-libisl19_0.19-1_amd64.deb ...
Unpacking libisl19:amd64 (0.19-1) ...
Selecting previously unselected package libmpc3:amd64.
Preparing to unpack .../06-libmpc3_1.1.0-1_amd64.deb ...
Unpacking libmpc3:amd64 (1.1.0-1) ...
Selecting previously unselected package cpp-7.
Preparing to unpack .../07-cpp-7_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking cpp-7 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package cpp.
Preparing to unpack .../08-cpp_4%3a7.4.0-1ubuntu2.3_amd64.deb ...
Unpacking cpp (4:7.4.0-1ubuntu2.3) ...
Selecting previously unselected package libcc1-0:amd64.
Preparing to unpack .../09-libcc1-0_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libcc1-0:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libgomp1:amd64.
Preparing to unpack .../10-libgomp1_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libgomp1:amd64 (8.4.0-1ubuntu1~18.04) ...
```

```
Selecting previously unselected package libitm1:amd64.
Preparing to unpack .../11-libitm1_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libitm1:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libatomic1:amd64.
Preparing to unpack .../12-libatomic1_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libatomic1:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libasan4:amd64.
Preparing to unpack .../13-libasan4_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking libasan4:amd64 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package liblsan0:amd64.
Preparing to unpack .../14-liblsan0_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking liblsan0:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libtsan0:amd64.
Preparing to unpack .../15-libtsan0_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libtsan0:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libubsan0:amd64.
Preparing to unpack .../16-libubsan0_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking libubsan0:amd64 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package libcilkrts5:amd64.
Preparing to unpack .../17-libcilkrts5_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking libcilkrts5:amd64 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package libmpx2:amd64.
Preparing to unpack .../18-libmpx2_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libmpx2:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libquadmath0:amd64.
Preparing to unpack .../19-libquadmath0_8.4.0-1ubuntu1~18.04_amd64.deb ...
Unpacking libquadmath0:amd64 (8.4.0-1ubuntu1~18.04) ...
Selecting previously unselected package libgcc-7-dev:amd64.
Preparing to unpack .../20-libgcc-7-dev_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking libgcc-7-dev:amd64 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package gcc-7.
Preparing to unpack .../21-gcc-7_7.5.0-3ubuntu1~18.04_amd64.deb ...
Unpacking gcc-7 (7.5.0-3ubuntu1~18.04) ...
Selecting previously unselected package gcc.
Preparing to unpack .../22-gcc_4%3a7.4.0-1ubuntu2.3_amd64.deb ...
Unpacking gcc (4:7.4.0-1ubuntu2.3) ...
Selecting previously unselected package libc-dev-bin.
Preparing to unpack .../23-libc-dev-bin_2.27-3ubuntu1.4_amd64.deb ...
Unpacking libc-dev-bin (2.27-3ubuntu1.4) ...
Selecting previously unselected package libc6-dev:amd64.
Preparing to unpack .../24-libc6-dev_2.27-3ubuntu1.4_amd64.deb ...
Unpacking libc6-dev:amd64 (2.27-3ubuntu1.4) ...
Selecting previously unselected package manpages-dev.
Preparing to unpack .../25-manpages-dev_4.15-1_all.deb ...
Unpacking manpages-dev (4.15-1) ...
Setting up libquadmath0:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libgomp1:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libatomic1:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libcc1-0:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libtsan0:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up liblsan0:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up gcc-7-base:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up binutils-common:amd64 (2.30-21ubuntu1~18.04.5) ...
Setting up libmpx2:amd64 (8.4.0-1ubuntu1~18.04) ...
```

```
Setting up libmpc3:amd64 (1.1.0-1) ...
Setting up libc-dev-bin (2.27-3ubuntu1.4) ...
Setting up manpages-dev (4.15-1) ...
Setting up libc6-dev:amd64 (2.27-3ubuntu1.4) ...
Setting up libitm1:amd64 (8.4.0-1ubuntu1~18.04) ...
Setting up libisl19:amd64 (0.19-1) ...
Setting up libasan4:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libbinutils:amd64 (2.30-21ubuntu1~18.04.5) ...
Setting up libcilkrts5:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libubsan0:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up libgcc-7-dev:amd64 (7.5.0-3ubuntu1~18.04) ...
Setting up cpp-7 (7.5.0-3ubuntu1~18.04) ...
Setting up binutils-x86-64-linux-gnu (2.30-21ubuntu1~18.04.5) ...
Setting up cpp (4:7.4.0-1ubuntu2.3) ...
Setting up binutils (2.30-21ubuntu1~18.04.5) ...
Setting up gcc-7 (7.5.0-3ubuntu1~18.04) ...
Setting up gcc (4:7.4.0-1ubuntu2.3) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for libc-bin (2.27-3ubuntu1.4) ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libjq1 libonig4
The following NEW packages will be installed:
  jq libjq1 libonig4
0 upgraded, 3 newly installed, 0 to remove and 89 not upgraded.
Need to get 276 kB of archives.
After this operation, 930 kB of additional disk space will be used.
Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64
libonig4 amd64 6.7.0-1 [119 kB]
Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64
libjq1 amd64 1.5+dfsg-2 [111 kB]
Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64 jq
amd64 1.5+dfsg-2 [45.6 kB]
Fetched 276 kB in 0s (19.2 MB/s)
Selecting previously unselected package libonig4:amd64.
(Reading database ... 92426 files and directories currently installed.)
Preparing to unpack .../libonig4_6.7.0-1_amd64.deb ...
Unpacking libonig4:amd64 (6.7.0-1) ...
Selecting previously unselected package libjq1:amd64.
Preparing to unpack .../libjq1_1.5+dfsg-2_amd64.deb ...
Unpacking libjq1:amd64 (1.5+dfsg-2) ...
Selecting previously unselected package jq.
Preparing to unpack .../jq_1.5+dfsg-2_amd64.deb ...
Unpacking jq (1.5+dfsg-2) ...
Setting up libonig4:amd64 (6.7.0-1) ...
Setting up libjq1:amd64 (1.5+dfsg-2) ...
Setting up jq (1.5+dfsg-2) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for libc-bin (2.27-3ubuntu1.4) ...
Install golang.
--2021-10-13 08:52:50--  https://dl.google.com/go/go1.13.9.linux-amd64.tar.gz
Resolving dl.google.com (dl.google.com)... 172.217.14.206,
```

```
2607:f8b0:400a:807::200e
Connecting to dl.google.com (dl.google.com)|172.217.14.206|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 120139686 (115M) [application/octet-stream]
Saving to: '/tmp/go1.13.9.linux-amd64.tar.gz'

go1.13.9.linux-amd64.tar.gz
100%[=========================================================================
===================>] 114.57M  32.5MB/s     in 4.8s

2021-10-13 08:52:55 (23.8 MB/s) - '/tmp/go1.13.9.linux-amd64.tar.gz' saved
[120139686/120139686]

Done.
Please run and add 'export PATH=$PATH:/usr/local/go/bin' into your shell
profile.
You can proceed to run arktos-up.sh if you want to launch a single-node cluster.
ubuntu@ip-172-31-20-46:~$ echo export PATH=$PATH:/usr/local/go/bin\ >>
~/.profile
ubuntu@ip-172-31-20-46:~$ echo cd \$HOME/go/src/k8s.io/arktos >> ~/.profile
ubuntu@ip-172-31-20-46:~$ source ~/.profile
ubuntu@ip-172-31-20-46:~/go/src/k8s.io/arktos$ ./hack/arktos-up.sh
DBG: Flannel CNI plugin will be installed AFTER cluster is up
DBG: effective feature gates
AllAlpha=false,WorkloadInfoDefaulting=true,QPSDoubleGCController=true,QPSDoubleR
SController=true,MandatoryArktosNetwork=true
DBG: effective disabling admission plugins
DBG: effective default network template file is
/home/ubuntu/go/src/k8s.io/arktos/hack/testdata/default-flat-network.tmpl
DBG: kubelet arg RESOLV_CONF is /run/systemd/resolve/resolv.conf
WARNING : The kubelet is configured to not fail even if swap is enabled;
production deployments should disable swap.
WARNING : This script MAY be run as root for docker socket / iptables
functionality; if failures occur, retry as root.
cni plugin is bridge; arktos will use bridge to provision pod network
Ensuring firewall to allow traffic forward by default
-P FORWARD DROP
-P FORWARD ACCEPT
Ensuring minimum cni plugin installation...
installing cni plugin binaries
./
./flannel
./ptp
./host-local
./firewall
./portmap
./tuning
./vlan
./host-device
./bandwidth
./sbr
./static
./dhcp
./ipvlan
```

```
./macvlan
./loopback
./bridge
2021-10-13 08:53:44
URL:https://github-releases.githubusercontent.com/84575398/53318d00-bf61-11e9-9a
8f-40364582e9ed?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CS
VEH53A%2F20211013%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20211013T085343Z&X-
Amz-Expires=300&X-Amz-Signature=22c50afbd2020cee2834b5ae0255122e74fc624fceea110c
0d2a32efcf18141f&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=84575398&r
esponse-content-disposition=attachment%3B%20filename%3Dcni-plugins-linux-amd64-v
0.8.2.tgz&response-content-type=application%2Foctet-stream [36662740/36662740]
-> "-" [1]
setting up cni conf file...
copying /home/ubuntu/go/src/k8s.io/arktos/hack/testdata/cni-conf/bridge.conf to
/etc/cni/net.d/bridge.conf...
copied /home/ubuntu/go/src/k8s.io/arktos/hack/testdata/cni-conf/bridge.conf to
/etc/cni/net.d/bridge.conf
done with bridge cni plugin installation
WARNING : The kubelet is configured to not fail even if swap is enabled;
production deployments should disable swap.
WARNING : This script MAY be run as root for docker socket / iptables
functionality; if failures occur, retry as root.
Getting runtime deployment file  libvirt-qemu
--2021-10-13 08:53:44--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/apparmor/libvirt-qemu
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.111.133, 185.199.108.133, 185.199.109.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.111.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 6578 (6.4K) [text/plain]
Saving to: '/tmp/libvirt-qemu'

/tmp/libvirt-qemu
100%[============================================================================
====================>]   6.42K  --.-KB/s    in 0s

2021-10-13 08:53:44 (56.2 MB/s) - '/tmp/libvirt-qemu' saved [6578/6578]

Getting runtime deployment file  libvirtd
--2021-10-13 08:53:44--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/apparmor/libvirtd
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1617 (1.6K) [text/plain]
Saving to: '/tmp/libvirtd'

/tmp/libvirtd
100%[============================================================================
```

```
==================>]   1.58K  --.-KB/s    in 0s

2021-10-13 08:53:44 (23.4 MB/s) - '/tmp/libvirtd' saved [1617/1617]

Getting runtime deployment file  virtlet
--2021-10-13 08:53:44--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/apparmor/virtlet
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2582 (2.5K) [text/plain]
Saving to: '/tmp/virtlet'

/tmp/virtlet
100%[=========================================================================
==================>]   2.52K  --.-KB/s    in 0s

2021-10-13 08:53:44 (36.1 MB/s) - '/tmp/virtlet' saved [2582/2582]

Getting runtime deployment file  vms
--2021-10-13 08:53:44--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/apparmor/vms
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 485 [text/plain]
Saving to: '/tmp/vms'

/tmp/vms
100%[=========================================================================
==================>]    485  --.-KB/s    in 0s

2021-10-13 08:53:44 (24.8 MB/s) - '/tmp/vms' saved [485/485]

Getting runtime deployment file  vmruntime.yaml
--2021-10-13 08:53:44--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/data/virtlet-ds.yaml
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11643 (11K) [text/plain]
Saving to: '/tmp/vmruntime.yaml'

/tmp/vmruntime.yaml
100%[=========================================================================
```

```
===================>]  11.37K  --.-KB/s    in 0s

2021-10-13 08:53:45 (73.1 MB/s) - '/tmp/vmruntime.yaml' saved [11643/11643]

Getting runtime deployment file  images.yaml
--2021-10-13 08:53:45--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/
deploy/images.yaml
Resolving raw.githubusercontent.com (raw.githubusercontent.com)...
185.199.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 254 [text/plain]
Saving to: '/tmp/images.yaml'

/tmp/images.yaml
100%[=============================================================================
===================>]     254  --.-KB/s    in 0s

2021-10-13 08:53:45 (11.2 MB/s) - '/tmp/images.yaml' saved [254/254]

Stopping Apparmor service
make: Entering directory '/home/ubuntu/go/src/k8s.io/arktos'
make[1]: Entering directory '/home/ubuntu/go/src/k8s.io/arktos'
+++ [1013 08:53:52] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/deepcopy-gen
+++ [1013 08:53:52] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/defaulter-gen
+++ [1013 08:53:52] Building go targets for linux/amd64:
    ./vendor/k8s.io/kube-openapi/cmd/openapi-gen
+++ [1013 08:53:52] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/conversion-gen
+++ [1013 08:53:57] Building go targets for linux/amd64:
    ./vendor/github.com/go-bindata/go-bindata/go-bindata
make[1]: Leaving directory '/home/ubuntu/go/src/k8s.io/arktos'
Running copyright check for repo: /home/ubuntu/go/src/k8s.io/arktos, logging to
_output/ArktosCopyrightTool.log
~/go/src/k8s.io/arktos ~/go/src/k8s.io/arktos
warning: inexact rename detection was skipped due to too many files.
warning: you may want to set your diff.renameLimit variable to at least 3062 and
retry the command.
~/go/src/k8s.io/arktos
~/go/src/k8s.io/arktos ~/go/src/k8s.io/arktos
warning: inexact rename detection was skipped due to too many files.
warning: you may want to set your diff.renameLimit variable to at least 3062 and
retry the command.
~/go/src/k8s.io/arktos
Inspecting copyright files, writing logs to _output/ArktosCopyrightTool.log
Done.
+++ [1013 08:54:20] Building go targets for linux/amd64:
    cmd/kubectl
    cmd/hyperkube
    cmd/kube-apiserver
```

```
        cmd/kube-controller-manager
        cmd/workload-controller-manager
        cmd/cloud-controller-manager
        cmd/kubelet
        cmd/kube-proxy
        cmd/kube-scheduler
        cmd/arktos-network-controller
Running copyright check for repo: /home/ubuntu/go/src/k8s.io/arktos, logging to
_output/ArktosCopyrightTool.log
~/go/src/k8s.io/arktos ~/go/src/k8s.io/arktos
warning: inexact rename detection was skipped due to too many files.
warning: you may want to set your diff.renameLimit variable to at least 3062 and
retry the command.
~/go/src/k8s.io/arktos
~/go/src/k8s.io/arktos ~/go/src/k8s.io/arktos
warning: inexact rename detection was skipped due to too many files.
warning: you may want to set your diff.renameLimit variable to at least 3062 and
retry the command.
~/go/src/k8s.io/arktos
Inspecting copyright files, writing logs to _output/ArktosCopyrightTool.log
Done.
make: Leaving directory '/home/ubuntu/go/src/k8s.io/arktos'
cannot find etcd locally. will install one.
Downloading
https://github.com/centaurus-cloud/etcd/releases/download/v3.4.3/etcd-v3.4.3-lin
ux-amd64.tar.gz succeed
etcd v3.4.3 installed. To use:
export PATH="/home/ubuntu/go/src/k8s.io/arktos/third_party/etcd:${PATH}"

The current version is 3.4.3

API SERVER insecure port is free, proceeding...
API SERVER secure port is free, proceeding...
Unable to successfully run 'cfssl' from
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/loc
al/games:/snap/bin:/usr/local/go/bin:/home/ubuntu/go/src/k8s.io/arktos/third_par
ty/etcd; downloading instead...
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--     0
100   623  100   623    0     0   2193      0 --:--:-- --:--:-- --:--:--  2193
100  9.8M  100  9.8M    0     0  11.6M      0 --:--:-- --:--:-- --:--:-- 22.6M
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--     0
100   627  100   627    0     0   2943      0 --:--:-- --:--:-- --:--:--  2943
100 2224k  100 2224k    0     0  4096k      0 --:--:-- --:--:-- --:--:-- 4096k
Detected host and ready to start services.  Doing some housekeeping first...
Using GO_OUT /home/ubuntu/go/src/k8s.io/arktos/_output/local/bin/linux/amd64
Starting services now!
Starting etcd

The current version is 3.4.3
```

```
etcd --name ip-172-31-20-46 --listen-peer-urls http://172.31.20.46:2380
--advertise-client-urls http://172.31.20.46:2379 --data-dir /tmp/tmp.PpM5jSFUnT
--listen-client-urls http://172.31.20.46:2379,http://127.0.0.1:2379
--listen-peer-urls http://172.31.20.46:2380 --debug > "/tmp/etcd.log"
2>/dev/null
Waiting for etcd to come up.
+++ [1013 08:56:49] On try 2, etcd: : {"health":"true"}
{"header":{"cluster_id":"12574209812231573994","member_id":"6382520316260976095"
,"revision":"2","raft_term":"2"}}Starting 1 kube-apiserver instances. If you
want to make changes to the kube-apiserver nubmer, please run export
APISERVER_SERVER=n(n=1,2,...).
Copied the apiserver partition config file
/var/run/kubernetes/apiserver.config...
Can't load /home/ubuntu/.rnd into RNG
140114039255488:error:2406F079:random number generator:RAND_load_file:Cannot
open file:../crypto/rand/randfile.c:88:Filename=/home/ubuntu/.rnd
Generating a RSA private key
...........................+++++
......................+++++
writing new private key to '/var/run/kubernetes/server-ca.key'
-----
Can't load /home/ubuntu/.rnd into RNG
139959282041280:error:2406F079:random number generator:RAND_load_file:Cannot
open file:../crypto/rand/randfile.c:88:Filename=/home/ubuntu/.rnd
Generating a RSA private key
.........................................................................
..............................................+++++
.........................................................+++++
writing new private key to '/var/run/kubernetes/client-ca.key'
-----
Can't load /home/ubuntu/.rnd into RNG
140707100422592:error:2406F079:random number generator:RAND_load_file:Cannot
open file:../crypto/rand/randfile.c:88:Filename=/home/ubuntu/.rnd
Generating a RSA private key
...........................................................................+++++
..........................................................................
..................+++++
writing new private key to '/var/run/kubernetes/request-header-ca.key'
-----
2021/10/13 08:56:50 [INFO] generate received request
2021/10/13 08:56:50 [INFO] received CSR
2021/10/13 08:56:50 [INFO] generating key: rsa-2048
2021/10/13 08:56:50 [INFO] encoded CSR
2021/10/13 08:56:50 [INFO] signed certificate with serial number
392968618331531952267634302922471063278345259273
2021/10/13 08:56:50 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:50 [INFO] generate received request
2021/10/13 08:56:50 [INFO] received CSR
```

```
2021/10/13 08:56:50 [INFO] generating key: rsa-2048
2021/10/13 08:56:50 [INFO] encoded CSR
2021/10/13 08:56:50 [INFO] signed certificate with serial number
706038253318235659728384310595652675473660427456
2021/10/13 08:56:50 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:50 [INFO] generate received request
2021/10/13 08:56:50 [INFO] received CSR
2021/10/13 08:56:50 [INFO] generating key: rsa-2048
2021/10/13 08:56:51 [INFO] encoded CSR
2021/10/13 08:56:51 [INFO] signed certificate with serial number
453743755627562543854610683827343689141179599852
2021/10/13 08:56:51 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:51 [INFO] generate received request
2021/10/13 08:56:51 [INFO] received CSR
2021/10/13 08:56:51 [INFO] generating key: rsa-2048
2021/10/13 08:56:51 [INFO] encoded CSR
2021/10/13 08:56:51 [INFO] signed certificate with serial number
684100903275141319941109114593685154923515989117
2021/10/13 08:56:51 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:51 [INFO] generate received request
2021/10/13 08:56:51 [INFO] received CSR
2021/10/13 08:56:51 [INFO] generating key: rsa-2048
2021/10/13 08:56:52 [INFO] encoded CSR
2021/10/13 08:56:52 [INFO] signed certificate with serial number
711171493937099934864192092355648256782521347647
2021/10/13 08:56:52 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:52 [INFO] generate received request
2021/10/13 08:56:52 [INFO] received CSR
2021/10/13 08:56:52 [INFO] generating key: rsa-2048
2021/10/13 08:56:52 [INFO] encoded CSR
```

```
2021/10/13 08:56:52 [INFO] signed certificate with serial number
411375751010716210660568674960568457917320019877
2021/10/13 08:56:52 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:52 [INFO] generate received request
2021/10/13 08:56:52 [INFO] received CSR
2021/10/13 08:56:52 [INFO] generating key: rsa-2048
2021/10/13 08:56:52 [INFO] encoded CSR
2021/10/13 08:56:52 [INFO] signed certificate with serial number
142846846840327854860654971082128664900035557976
2021/10/13 08:56:52 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:52 [INFO] generate received request
2021/10/13 08:56:52 [INFO] received CSR
2021/10/13 08:56:52 [INFO] generating key: rsa-2048
2021/10/13 08:56:52 [INFO] encoded CSR
2021/10/13 08:56:52 [INFO] signed certificate with serial number
373152039483832106987157175122272979553699607766
2021/10/13 08:56:52 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
2021/10/13 08:56:52 [INFO] generate received request
2021/10/13 08:56:52 [INFO] received CSR
2021/10/13 08:56:52 [INFO] generating key: rsa-2048
2021/10/13 08:56:52 [INFO] encoded CSR
2021/10/13 08:56:52 [INFO] signed certificate with serial number
270739197243449869871868188501107545003794801726
2021/10/13 08:56:52 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
Waiting for apiserver to come up
+++ [1013 08:57:02] On try 8, apiserver: : ok
clusterrolebinding.rbac.authorization.k8s.io/kube-apiserver-kubelet-admin
created
Cluster "local-up-cluster" set.
use 'kubectl --kubeconfig=/var/run/kubernetes/admin-kube-aggregator0.kubeconfig'
```

```
to use the aggregated API server
2021/10/13 08:57:03 [INFO] generate received request
2021/10/13 08:57:03 [INFO] received CSR
2021/10/13 08:57:03 [INFO] generating key: rsa-2048
2021/10/13 08:57:03 [INFO] encoded CSR
2021/10/13 08:57:03 [INFO] signed certificate with serial number
311097048070600413064171532097828392989672747593
2021/10/13 08:57:03 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
service/kube-dns created
serviceaccount/kube-dns created
configmap/kube-dns created
deployment.apps/kube-dns created
Kube-dns addon successfully deployed.
2021/10/13 08:57:04 [INFO] generate received request
2021/10/13 08:57:04 [INFO] received CSR
2021/10/13 08:57:04 [INFO] generating key: rsa-2048
2021/10/13 08:57:05 [INFO] encoded CSR
2021/10/13 08:57:05 [INFO] signed certificate with serial number
428673336082276620198551802658930565214393358416
2021/10/13 08:57:05 [WARNING] This certificate lacks a "hosts" field. This makes
it unsuitable for
websites. For more information see the Baseline Requirements for the Issuance
and Management
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
kubelet ( 29457 ) is running.
Create default storage class for
storageclass.storage.k8s.io/standard created
customresourcedefinition.apiextensions.k8s.io/networks.arktos.futurewei.com
created
*******************************************
Setup Arktos components ...

Waiting for node ready at api server
ip-172-31-20-46   Ready   <none>   3s    v0.9.0
node/ip-172-31-20-46 labeled
configmap/virtlet-image-translations created
daemonset.apps/virtlet created
configmap/virtlet-config created
clusterrolebinding.rbac.authorization.k8s.io/virtlet created
clusterrole.rbac.authorization.k8s.io/virtlet created
clusterrole.rbac.authorization.k8s.io/configmap-reader created
clusterrole.rbac.authorization.k8s.io/virtlet-userdata-reader created
clusterrolebinding.rbac.authorization.k8s.io/kubelet-node-binding created
clusterrolebinding.rbac.authorization.k8s.io/vm-userdata-binding created
clusterrole.rbac.authorization.k8s.io/virtlet-crd created
clusterrolebinding.rbac.authorization.k8s.io/virtlet-crd created
```

```
serviceaccount/virtlet created
NAME       DESIRED   CURRENT   READY   UP-TO-DATE   AVAILABLE   NODE SELECTOR
AGE
virtlet    0         0         0       0            0           <none>
0s
clusterrole.rbac.authorization.k8s.io/system:arktos-network-reader created
clusterrolebinding.rbac.authorization.k8s.io/system:kubelet-network-reader
created

Arktos Setup done.
*******************************************
Setup Kata Containers components ...
* Install Kata components
kata-containers 2.2.1 from Kata Containers (katacontainers✓) installed
* Checking Kata compatibility
No newer release available time="2021-10-13T08:57:21Z" level=error msg="CPU
property not found" arch=amd64 description="Virtualization support" name=vmx
pid=31629 source=runtime type=flag time="2021-10-13T08:57:21Z" level=error
msg="Module is not loaded and it can not be inserted. Please consider running
with sudo or as root" arch=amd64 module=kvm_intel name=kata-runtime pid=31629
source=runtime time="2021-10-13T08:57:21Z" level=error msg="kernel property not
found" arch=amd64 description="Intel KVM" name=kvm_intel pid=31629
source=runtime type=module time="2021-10-13T08:57:21Z" level=error msg="Module
is not loaded and it can not be inserted. Please consider running with sudo or
as root" arch=amd64 module=kvm name=kata-runtime pid=31629 source=runtime
time="2021-10-13T08:57:21Z" level=error msg="kernel property not found"
arch=amd64 description="Kernel-based Virtual Machine" name=kvm pid=31629
source=runtime type=module time="2021-10-13T08:57:21Z" level=error msg="Module
is not loaded and it can not be inserted. Please consider running with sudo or
as root" arch=amd64 module=vhost name=kata-runtime pid=31629 source=runtime
time="2021-10-13T08:57:21Z" level=error msg="kernel property not found"
arch=amd64 description="Host kernel accelerator for virtio" name=vhost pid=31629
source=runtime type=module time="2021-10-13T08:57:21Z" level=error msg="Module
is not loaded and it can not be inserted. Please consider running with sudo or
as root" arch=amd64 module=vhost_net name=kata-runtime pid=31629 source=runtime
time="2021-10-13T08:57:21Z" level=error msg="kernel property not found"
arch=amd64 description="Host kernel accelerator for virtio network"
name=vhost_net pid=31629 source=runtime type=module time="2021-10-13T08:57:21Z"
level=error msg="Module is not loaded and it can not be inserted. Please
consider running with sudo or as root" arch=amd64 module=vhost_vsock
name=kata-runtime pid=31629 source=runtime time="2021-10-13T08:57:21Z"
level=error msg="kernel property not found" arch=amd64 description="Host Support
for Linux VM Sockets" name=vhost_vsock pid=31629 source=runtime type=module
time="2021-10-13T08:57:21Z" level=error msg="ERROR: System is not capable of
running Kata Containers" arch=amd64 name=kata-runtime pid=31629 source=runtime
ERROR: System is not capable of running Kata Containers
Aborted. Current system does not support Kata Containers.
Kata Setup done.
*******************************************
Local Kubernetes cluster is running. Press Ctrl-C to shut it down.

Logs:
  /tmp/kube-apiserver0.log
  /tmp/kube-controller-manager.log
```

```
  /tmp/kube-proxy.log
  /tmp/kube-scheduler.log
  /tmp/kubelet.log

To start using your cluster, you can open up another terminal/tab and run:

  export KUBECONFIG=/var/run/kubernetes/admin.kubeconfig
Or
  export KUBECONFIG=/var/run/kubernetes/adminN(N=0,1,...).kubeconfig

  cluster/kubectl.sh

Alternatively, you can write to the default kubeconfig:

  export KUBERNETES_PROVIDER=local

  cluster/kubectl.sh config set-cluster local
--server=https://ip-172-31-20-46:6443
--certificate-authority=/var/run/kubernetes/server-ca.crt
  cluster/kubectl.sh config set-credentials myself
--client-key=/var/run/kubernetes/client-admin.key
--client-certificate=/var/run/kubernetes/client-admin.crt
  cluster/kubectl.sh config set-context local --cluster=local --user=myself
  cluster/kubectl.sh config use-context local
  cluster/kubectl.sh
```