

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

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

→ SSH session to ubuntu@54.149.92.0
• Direct SSH      : v
• SSH compression : v
• SSH-browser     : v
• X11-forwarding  : v (remote display is forwarded through SSH)

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

```
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.4.0-1045-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 10:06:49 UTC 2021
```

```
System load: 0.0          Processes:           144
Usage of /: 0.9% of 125.96GB Users logged in:      0
Memory usage: 0%          IP address for eth0: 172.31.22.236
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-172-31-22-236:~$ uname -a
Linux ip-172-31-22-236 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-172-31-22-236:~$ wget
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
--2021-10-13 10:16:47--
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
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: 791 [text/plain]  
Saving to: 'kernelupdate.sh'
```

```
kernelupdate.sh
```

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

```
2021-10-13 10:16:48 (39.1 MB/s) - 'kernelupdate.sh' saved [791/791]
```

```
ubuntu@ip-172-31-22-236:~$ sudo bash kernelupdate.sh
```

```
--2021-10-13 10:16:50--
```

```
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)... 52.217.166.153
```

```
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)|52.217.166.153|: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
```

```
100%[=====]  
==>] 7.27M 4.85MB/s in 1.5s
```

```
2021-10-13 10:16:52 (4.85 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 10:16:52--
```

```
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)... 52.217.166.153
```

```
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)|52.217.166.153|: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_amd
```

```
100%[=====]  
==>] 818.09M 21.6MB/s in 1m 45s
```

```
2021-10-13 10:18:37 (7.77 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 10:18:37--
```

```
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-image-5.6.0-rc2_5.6.0-rc2-1_amd64.deb
```

```
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.217.165.241
```

```
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)|52.217.165.241|: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.d

100%[=====]  
==>] 53.81M 10.8MB/s in 5.8s

2021-10-13 10:18:43 (9.31 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 10:18:43--

https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-libc-dev\_5.6.0-rc2-1\_amd64.deb  
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.217.128.89  
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)|52.217.128.89|: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 2.37MB/s in 0.4s

2021-10-13 10:18:44 (2.37 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

Network error: Connection timed out

---

Session stopped

- Press <return> to exit tab
- Press R to restart session
- Press S to save terminal output to file

login as: ubuntu

Authenticating with public key "Imported-Openssh-Key:

C:\\Users\\amit.rahate\\Downloads\\amit-centaurus-awskeypair.pem"

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

→ SSH session to **ubuntu@54.149.92.0**

- Direct SSH : v
- SSH compression : v
- SSH-browser : v
- X11-forwarding : v (remote display is forwarded through SSH)

→ For more info, ctrl+click on [help](#) or visit our [website](#).

Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.6.0-rc2 x86\_64)

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

System information as of Wed Oct 13 10:24:32 UTC 2021

System load:	1.49	Processes:	168
Usage of /:	6.4% of 125.96GB	Users logged in:	0
Memory usage:	0%	IP address for eth0:	172.31.22.236
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 10:06:51 2021 from 114.143.207.106
ubuntu@ip-172-31-22-236:~$ uname -a
Linux ip-172-31-22-236 5.6.0-rc2 #1 SMP Tue Feb 25 18:54:05 UTC 2020 x86_64 x86_64 x86_64
GNU/Linux
ubuntu@ip-172-31-22-236:~$ 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% (429/429), done.
remote: Total 104097 (delta 292), reused 416 (delta 203), pack-reused 103442
Receiving objects: 100% (104097/104097), 208.39 MiB | 26.54 MiB/s, done.
Resolving deltas: 100% (62708/62708), done.
Checking out files: 100% (20761/20761), done.
ubuntu@ip-172-31-22-236:~$ 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 (3896 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 (49.0 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 (12.6 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  
libcilkrtss 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 (55.7 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 (15.2 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 10:27:43-- https://dl.google.com/go/go1.13.9.linux-amd64.tar.gz
Resolving dl.google.com (dl.google.com)... 142.251.33.78, 2607:f8b0:400a:801::200e
Connecting to dl.google.com (dl.google.com)|142.251.33.78|: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 52.1MB/s in 2.2s

2021-10-13 10:27:45 (52.1 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-172-31-22-236:~\$ echo export PATH=\$PATH:/usr/local/go/bin \>> ~/.profile

ubuntu@ip-172-31-22-236:~\$ echo cd \$HOME/go/src/k8s.io/arktos \>> ~/.profile

ubuntu@ip-172-31-22-236:~\$ source ~/.profile

ubuntu@ip-172-31-22-236:~/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,QPSDoubleRSCont  
roller=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 10:30:54

URL:[https://github-releases.githubusercontent.com/84575398/53318d00-bf61-11e9-9a8f-40364582e9ed?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20211013%2Fus-east-1%2Fs3%2Faws4\\_request&X-Amz-Date=20211013T103053Z&X-Amz-Expires=300](https://github-releases.githubusercontent.com/84575398/53318d00-bf61-11e9-9a8f-40364582e9ed?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20211013%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20211013T103053Z&X-Amz-Expires=300)

```

&X-Amz-Signature=49caba1946b383793f10d5677bdb867f5fe93487e551e7f6446369bfe4ae0233&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=84575398&response-content-disposition=attachment%3B%20filename%3Dcni-plugins-linux-amd64-v0.8.2.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 10:30:54--
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 10:30:55 (42.2 MB/s) - '/tmp/libvirt-qemu' saved [6578/6578]

Getting runtime deployment file  libvirtd
--2021-10-13 10:30:55--
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 10:30:55 (19.7 MB/s) - '/tmp/libvirtd' saved [1617/1617]

Getting runtime deployment file  virtlet
--2021-10-13 10:30:55--
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 10:30:55 (31.5 MB/s) - '/tmp/virtlet' saved [2582/2582]

Getting runtime deployment file vms
--2021-10-13 10:30:55--
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 10:30:55 (21.4 MB/s) - '/tmp/vms' saved [485/485]

Getting runtime deployment file vmruntime.yaml
--2021-10-13 10:30:55--
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 10:30:55 (66.9 MB/s) - '/tmp/vmruntime.yaml' saved [11643/11643]

Getting runtime deployment file images.yaml
--2021-10-13 10:30:55--
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 10:30:56 (11.5 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 10:31:03] Building go targets for linux/amd64:
```

```
./vendor/k8s.io/code-generator/cmd/deepcopy-gen
```

```
+++ [1013 10:31:03] Building go targets for linux/amd64:
```

```
./vendor/k8s.io/code-generator/cmd/conversion-gen
```

```
+++ [1013 10:31:03] Building go targets for linux/amd64:
```

```
./vendor/k8s.io/code-generator/cmd/defaulter-gen
```

```
+++ [1013 10:31:03] Building go targets for linux/amd64:
```

```
./vendor/k8s.io/kube-openapi/cmd/openapi-gen
```

```
+++ [1013 10:31:07] 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 10:31:30] Building go targets for linux/amd64:
```

```
cmd/kubect1
```

```
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-linux-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/local/games:/snap/bin:/usr/local/go/bin:/home/ubuntu/go/src/k8s.io/arktos/third\_party/etcd;  
downloading instead...

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
0	0	0	0	0	---	---	0
100	623	100	623	0	---	---	1679
100	9.8M	100	9.8M	0	0:00:01	0:00:01	18.4M
% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
0	0	0	0	0	---	---	0
100	627	100	627	0	---	---	2786
100	2224k	100	2224k	0	---	---	5465k

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-172-31-22-236 --listen-peer-urls http://172.31.22.236:2380

--advertise-client-urls http://172.31.22.236:2379 --data-dir /tmp/tmp.FUPM5lcgaw

--listen-client-urls http://172.31.22.236:2379,http://127.0.0.1:2379

--listen-peer-urls http://172.31.22.236:2380 --debug > "/tmp/etcd.log" 2>/dev/null

Waiting for etcd to come up.

+++ [1013 10:34:18] On try 2, etcd: : {"health":"true"}

{"header":{"cluster\_id":"13683399974403697593","member\_id":"13384917182605676970","revision":"2","raft\_term":"2"}}Starting 1 kube-apiserver instances. If you want to make changes to the kube-apiserver number, 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

139802505302464: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
140067259171264: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
140197584630208: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 10:34:18 [INFO] generate received request
2021/10/13 10:34:18 [INFO] received CSR
2021/10/13 10:34:18 [INFO] generating key: rsa-2048
2021/10/13 10:34:18 [INFO] encoded CSR
2021/10/13 10:34:18 [INFO] signed certificate with serial number
332591130828538200314072654393304468667782409846
2021/10/13 10:34:18 [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 10:34:18 [INFO] generate received request
2021/10/13 10:34:18 [INFO] received CSR
2021/10/13 10:34:18 [INFO] generating key: rsa-2048
2021/10/13 10:34:19 [INFO] encoded CSR
2021/10/13 10:34:19 [INFO] signed certificate with serial number
208801820662956873749683955597859840342764689038
2021/10/13 10:34:19 [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 10:34:19 [INFO] generate received request
2021/10/13 10:34:19 [INFO] received CSR
2021/10/13 10:34:19 [INFO] generating key: rsa-2048
2021/10/13 10:34:19 [INFO] encoded CSR
2021/10/13 10:34:19 [INFO] signed certificate with serial number
337028002944774812857209659537394272207780090244
2021/10/13 10:34:19 [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 10:34:20 [INFO] generate received request  
2021/10/13 10:34:20 [INFO] received CSR  
2021/10/13 10:34:20 [INFO] generating key: rsa-2048  
2021/10/13 10:34:20 [INFO] encoded CSR  
2021/10/13 10:34:20 [INFO] signed certificate with serial number  
3805743916521943610262798585331109635507322882  
2021/10/13 10:34:20 [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 10:34:20 [INFO] generate received request  
2021/10/13 10:34:20 [INFO] received CSR  
2021/10/13 10:34:20 [INFO] generating key: rsa-2048  
2021/10/13 10:34:21 [INFO] encoded CSR  
2021/10/13 10:34:21 [INFO] signed certificate with serial number  
212599080436472208244302814459566495426615406145  
2021/10/13 10:34:21 [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 10:34:21 [INFO] generate received request  
2021/10/13 10:34:21 [INFO] received CSR  
2021/10/13 10:34:21 [INFO] generating key: rsa-2048  
2021/10/13 10:34:21 [INFO] encoded CSR  
2021/10/13 10:34:21 [INFO] signed certificate with serial number  
88074866893479836188266536680023095534728958472  
2021/10/13 10:34:21 [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 10:34:21 [INFO] generate received request  
2021/10/13 10:34:21 [INFO] received CSR  
2021/10/13 10:34:21 [INFO] generating key: rsa-2048  
2021/10/13 10:34:22 [INFO] encoded CSR  
2021/10/13 10:34:22 [INFO] signed certificate with serial number  
397345993203040760045080640384623095812071757123  
2021/10/13 10:34:22 [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 10:34:22 [INFO] generate received request  
2021/10/13 10:34:22 [INFO] received CSR  
2021/10/13 10:34:22 [INFO] generating key: rsa-2048  
2021/10/13 10:34:22 [INFO] encoded CSR  
2021/10/13 10:34:22 [INFO] signed certificate with serial number  
371436265356153331981094970184786760752597768871  
2021/10/13 10:34:22 [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 10:34:22 [INFO] generate received request  
2021/10/13 10:34:22 [INFO] received CSR  
2021/10/13 10:34:22 [INFO] generating key: rsa-2048  
2021/10/13 10:34:22 [INFO] encoded CSR  
2021/10/13 10:34:22 [INFO] signed certificate with serial number  
84921817038695583782535305506434001775436515714  
2021/10/13 10:34:22 [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 10:34:32] 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 10:34:33 [INFO] generate received request  
2021/10/13 10:34:33 [INFO] received CSR  
2021/10/13 10:34:33 [INFO] generating key: rsa-2048  
2021/10/13 10:34:33 [INFO] encoded CSR  
2021/10/13 10:34:33 [INFO] signed certificate with serial number  
174331194501948997109911040785281832453802499028  
2021/10/13 10:34:33 [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 10:34:34 [INFO] generate received request  
2021/10/13 10:34:34 [INFO] received CSR

```

2021/10/13 10:34:34 [INFO] generating key: rsa-2048
2021/10/13 10:34:35 [INFO] encoded CSR
2021/10/13 10:34:35 [INFO] signed certificate with serial number
338331119827673726779472220083947392211273114688
2021/10/13 10:34:35 [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 ( 8399 ) 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-172-31-22-236 Ready <none> 3s v0.9.0
node/ip-172-31-22-236 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="2021-10-13T10:34:56Z" level=error msg="CPU property not
found" arch=amd64 description="Virtualization support" name=vmx pid=10963 source=runtime
type=flag time="2021-10-13T10:34:56Z" 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=10963 source=runtime time="2021-10-13T10:34:56Z" level=error
msg="kernel property not found" arch=amd64 description="Kernel-based Virtual Machine"
name=kvm pid=10963 source=runtime type=module time="2021-10-13T10:34:56Z" 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=10963 source=runtime
time="2021-10-13T10:34:56Z" level=error msg="kernel property not found" arch=amd64
description="Host kernel accelerator for virtio" name=vhost pid=10963 source=runtime

```

```
type=module time="2021-10-13T10:34:56Z" 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=10963 source=runtime time="2021-10-13T10:34:56Z" level=error msg="kernel property not found" arch=amd64 description="Host kernel accelerator for virtio network" name=vhost_net pid=10963 source=runtime type=module time="2021-10-13T10:34:56Z" 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=10963 source=runtime time="2021-10-13T10:34:56Z" level=error msg="kernel property not found" arch=amd64 description="Host Support for Linux VM Sockets" name=vhost_vsock pid=10963 source=runtime type=module time="2021-10-13T10:34:56Z" 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=10963 source=runtime time="2021-10-13T10:34:56Z" level=error msg="kernel property not found" arch=amd64 description="Intel KVM" name=kvm_intel pid=10963 source=runtime type=module time="2021-10-13T10:34:56Z" level=error msg="ERROR: System is not capable of running Kata Containers" arch=amd64 name=kata-runtime pid=10963 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/kubect1.sh
```

Alternatively, you can write to the default kubeconfig:

```
export KUBERNETES_PROVIDER=local

cluster/kubect1.sh config set-cluster local --server=https://ip-172-31-22-236:6443
--certificate-authority=/var/run/kubernetes/server-ca.crt
cluster/kubect1.sh config set-credentials myself
--client-key=/var/run/kubernetes/client-admin.key
--client-certificate=/var/run/kubernetes/client-admin.crt
cluster/kubect1.sh config set-context local --cluster=local --user=myself
cluster/kubect1.sh config use-context local
cluster/kubect1.sh
```