```
• MobaXterm 20.6 •
                  (SSH client, X-server and networking tools)
      → SSH session to ubuntu@35.232.221.201
         • SSH compression : v

    SSH-browser

         • X11-forwarding : v (remote display is forwarded through SSH)

    DISPLAY

                          : v (automatically set on remote server)
       → For more info, ctrl+click on help or visit our website
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.4.0-1051-gcp x86_64)
 * Documentation: https://help.ubuntu.com
 * Management:
                   https://landscape.canonical.com
 * Support:
                   https://ubuntu.com/advantage
 System information as of Fri Sep 24 07:45:21 UTC 2021
 System load: 0.0
                                                        155
                                   Processes:
                1.3% of 123.88GB
 Usage of /:
                                   Users logged in:
 Memory usage: 0%
                                   IP address for ens4: 10.128.0.59
 Swap usage:
0 updates can be applied immediately.
New release '20.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.
Last login: Fri Sep 24 07:27:59 2021 from 114.143.207.106
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
ubuntu@instance-1:~$ uname -a
Linux instance-1 5.4.0-1051-gcp #55~18.04.1-Ubuntu SMP Sun Aug 1 20:38:04 UTC 2021 x86 64
x86 64 x86 64 GNU/Linux
ubuntu@instance-1:~$ 5.4.0-1051-gcp^C
ubuntu@instance-1:~$ wget
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
--2021-09-24 07:46:43--
https://raw.githubusercontent.com/CentaurusInfra/mizar/dev-next/kernelupdate.sh
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.108.133,
185.199.109.133, 185.199.110.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com) | 185.199.108.133 | :443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 791 [text/plain]
Saving to: 'kernelupdate.sh'
kernelupdate.sh
```

```
100% [-----
2021-09-24 07:46:43 (50.5 MB/s) - 'kernelupdate.sh' saved [791/791]
ubuntu@instance-1:~$ sudo bash kernelupdate.sh
--2021-09-24 07:46:43--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd6
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.216.65.208
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com) 52.216.65.208:443...
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.deb
2021-09-24 07:46:43 (28.0 MB/s) -
"../linux-5.6-rc2/linux-headers-5.6.0-rc2_5.6.0-rc2-1_amd64.deb" saved
[7621020/7621020]
--2021-09-24 07:46:43--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-image-5.6.0-rc2-dbg 5.6.0-rc2-1 am
d64.deb
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.216.65.208
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com) 52.216.65.208:443...
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.deb
100%[-----
2021-09-24 07:46:58 (57.6 MB/s) -
"../linux-5.6-rc2/linux-image-5.6.0-rc2-dbg 5.6.0-rc2-1 amd64.deb" saved
[857827912/857827912]
--2021-09-24 07:46:58--
https://mizar.s3.amazonaws.com/linux-5.6-rc2/linux-image-5.6.0-rc2 5.6.0-rc2-1 amd64.
Resolving mizar.s3.amazonaws.com (mizar.s3.amazonaws.com)... 52.216.10.35
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com) | 52.216.10.35 | :443...
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%[-----
```

```
2021-09-24 07:46:59 (57.1 MB/s) -
'../linux-5.6-rc2/linux-image-5.6.0-rc2 5.6.0-rc2-1 amd64.deb' saved
[56427036/56427036]
--2021-09-24 07:46:59--
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)... 52.216.10.35
Connecting to mizar.s3.amazonaws.com (mizar.s3.amazonaws.com) 52.216.10.35:443...
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
2021-09-24 07:46:59 (5.24 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 ... 65616 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-5.4.0-1051-gcp
Found initrd image: /boot/initrd.img-5.4.0-1051-gcp
Adding boot menu entry for EFI firmware configuration
done
Setting up linux-libc-dev:amd64 (5.6.0-rc2-1) ...
Reboot host (y/n)?y
Rebooting
```

Session stopped

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

Authenticating with public key "ubuntu"

```
    MobaXterm 20.6 •
(SSH client, X-server and networking tools)
```

→ SSH session to ubuntu@35.232.221.201

SSH compression : vSSH-browser : v

• X11-forwarding : v (remote display is forwarded through SSH)

• DISPLAY : v (automatically set on remote server)

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

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

* Documentation: https://help.ubuntu.com

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

System information as of Fri Sep 24 08:35:19 UTC 2021

System load: 0.66 Processes: 167 Usage of /: 6.9% of 123.88GB Users logged in: 0

Memory usage: 0% IP address for ens4: 10.128.0.59

Swap usage: 0%

0 updates can be applied immediately.

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

Last login: Fri Sep 24 07:45:22 2021 from 114.143.207.106

ubuntu@instance-1:~\$ uname -a

Linux instance-1 5.6.0-rc2 #1 SMP Tue Feb 25 18:54:05 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux

ubuntu@instance-1:~\$ git clone https://github.com/Click2Cloud-Centaurus/arktos.git
~/go/src/k8s.io/arktos -b default-cni-mizar

Cloning into '/home/ubuntu/go/src/k8s.io/arktos'...

remote: Enumerating objects: 104392, done.

remote: Counting objects: 100% (1055/1055), done. remote: Compressing objects: 100% (631/631), done.

remote: Total 104392 (delta 516), reused 583 (delta 409), pack-reused 103337

Receiving objects: 100% (104392/104392), 332.77 MiB | 33.15 MiB/s, done.

Resolving deltas: 100% (63152/63152), done.

```
Checking out files: 100% (20762/20762), done.
ubuntu@instance-1:~$ 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-central1.gce.archive.ubuntu.com/ubuntu bionic InRelease
Get:2 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7
Get:3 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6]
kB]
Get:4 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:5 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/universe amd64 Packages
[8570 kB]
Get:6 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/universe Translation-en
[4941 kB]
Get:7 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/multiverse amd64 Packages
[151 kB]
Get:8 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/multiverse
Translation-en [108 kB]
Get:9 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
Packages [2224 kB]
Get:10 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main
Translation-en [435 kB]
Get:11 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/restricted
amd64 Packages [472 kB]
Get:12 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/restricted
Translation-en [64.0 kB]
Get:13 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/universe amd64
Packages [1749 kB]
Get:14 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/universe
Translation-en [375 kB]
Get:15 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/multiverse
amd64 Packages [27.3 kB]
Get:16 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/multiverse
Translation-en [6808 B]
Get:17 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-backports/main amd64
Packages [10.0 kB]
Get:18 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-backports/main
Translation-en [4764 B]
Get:19 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-backports/universe
amd64 Packages [10.3 kB]
Get:20 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-backports/universe
Translation-en [4588 B]
Get:21 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [1879 kB]
Get:22 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [342 kB]
Get:23 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64 Packages [448
Get:24 http://security.ubuntu.com/ubuntu bionic-security/restricted Translation-en
Get:25 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [1138
Get:26 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en [259
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 23.6 MB in 4s (5394 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
37 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 package was automatically installed and is no longer required:
  libnuma1
Use 'sudo apt autoremove' to remove it.
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 37 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-central1.gce.archive.ubuntu.com/ubuntu bionic/universe amd64 pigz amd64
2.4-1 [57.4 kB]
Get:2 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 bridge-utils
amd64 1.5-15ubuntu1 [30.1 kB]
Get:3 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/universe amd64
runc amd64 1.0.0~rc95-0ubuntu1~18.04.2 [4087 kB]
Get:4 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/universe amd64
containerd amd64 1.5.2-Oubuntu1~18.04.2 [32.9 MB]
Get:5 http://us-centrall.gce.archive.ubuntu.com/ubuntu bionic-updates/universe amd64
docker.io amd64 20.10.7-0ubuntu1~18.04.1 [36.9 MB]
Get:6 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 ubuntu-fan all
0.12.10 [34.7 kB]
Fetched 74.0 MB in 1s (56.5 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 97202 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_1.5.2-0ubuntu1~18.04.2_amd64.deb ...
Unpacking containerd (1.5.2-0ubuntu1~18.04.2) ...
Selecting previously unselected package docker.io.
Preparing to unpack .../4-docker.io_20.10.7-0ubuntu1~18.04.1_amd64.deb ...
Unpacking docker.io (20.10.7-0ubuntu1~18.04.1) ...
```

```
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 (1.5.2-0ubuntu1~18.04.2) ...
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 (20.10.7-0ubuntu1~18.04.1) ...
Adding group `docker' (GID 116) ...
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 (237-3ubuntu10.51) ...
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
The following package was automatically installed and is no longer required:
Use 'sudo apt autoremove' to remove it.
Suggested packages:
  make-doc
The following NEW packages will be installed:
0 upgraded, 1 newly installed, 0 to remove and 37 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-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 make amd64
4.1-9.1ubuntu1 [154 kB]
Fetched 154 kB in 0s (3387 kB/s)
Selecting previously unselected package make.
(Reading database ... 97524 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 package was automatically installed and is no longer required:
  libnuma1
Use 'sudo apt autoremove' to remove it.
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 37 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-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 binutils-common amd64 2.30-21ubuntu1~18.04.5 [197 kB]

Get:2 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libbinutils amd64 2.30-21ubuntu1~18.04.5 [489 kB]

Get:3 http://us-central1.gce.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-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 binutils amd64 2.30-21ubuntu1~18.04.5 [3388 B]

Get:5 http://us-central1.gce.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-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 libisl19 amd64
0.19-1 [551 kB]

Get:7 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 libmpc3 amd64
1.1.0-1 [40.8 kB]

Get:8 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 cpp-7 amd64 7.5.0-3ubuntu1~18.04 [8591 kB]

Get:9 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 cpp
amd64 4:7.4.0-1ubuntu2.3 [27.7 kB]

Get:10 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libcc1-0 amd64 8.4.0-1ubuntu1~18.04 [39.4 kB]

Get:11 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libgomp1 amd64 8.4.0-1ubuntu1~18.04 [76.5 kB]

Get:12 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libitm1 amd64 8.4.0-1ubuntu1~18.04 [27.9 kB]

Get:13 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libatomic1 amd64 8.4.0-1ubuntu1~18.04 [9192 B]

Get:14 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libasan4 amd64 7.5.0-3ubuntu1~18.04 [358 kB]

Get:15 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 liblsan0 amd64 8.4.0-1ubuntu1~18.04 [133 kB]

Get:16 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libtsan0 amd64 8.4.0-1ubuntu1~18.04 [288 kB]

Get:17 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libubsan0 amd64 7.5.0-3ubuntu1~18.04 [126 kB]

Get:18 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libcilkrts5 amd64 7.5.0-3ubuntu1~18.04 [42.5 kB]

Get:19 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libmpx2 amd64 8.4.0-1ubuntu1~18.04 [11.6 kB]

Get:20 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libquadmath0 amd64 8.4.0-1ubuntu1~18.04 [134 kB]

Get:21 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64

```
libgcc-7-dev amd64 7.5.0-3ubuntu1~18.04 [2378 kB]
Get:22 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 gcc-7
amd64 7.5.0-3ubuntu1~18.04 [9381 kB]
Get:23 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64 gcc
amd64 4:7.4.0-1ubuntu2.3 [5184 B]
Get:24 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libc-dev-bin amd64 2.27-3ubuntu1.4 [71.8 kB]
Get:25 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libc6-dev amd64 2.27-3ubuntu1.4 [2585 kB]
Get:26 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/main amd64 manpages-dev
all 4.15-1 [2217 kB]
Fetched 29.6 MB in 1s (54.3 MB/s)
Selecting previously unselected package binutils-common:amd64.
(Reading database ... 97540 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-lubuntu1~18.04) ...
Selecting previously unselected package libgomp1:amd64.
Preparing to unpack .../10-libgomp1_8.4.0-lubuntu1~18.04_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-lubuntu1~18.04) ...
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-lubuntu1~18.04) ...
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-lubuntu1~18.04 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 package was automatically installed and is no longer required:
  libnuma1
Use 'sudo apt autoremove' to remove it.
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 37 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-central1.gce.archive.ubuntu.com/ubuntu bionic/universe amd64 libonig4
amd64 6.7.0-1 [119 kB]
Get:2 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/universe amd64 libjq1
amd64 1.5+dfsg-2 [111 kB]
Get:3 http://us-central1.gce.archive.ubuntu.com/ubuntu bionic/universe amd64 jq amd64
1.5+dfsg-2 [45.6 kB]
Fetched 276 kB in 0s (10.7 MB/s)
Selecting previously unselected package libonig4:amd64.
(Reading database ... 100801 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.
--2021-09-24 08:38:14-- https://dl.google.com/go/go1.13.9.linux-amd64.tar.gz
Resolving dl.google.com (dl.google.com)... 142.250.103.91, 142.250.103.190,
142.250.103.136, ...
Connecting to dl.google.com (dl.google.com) | 142.250.103.91 | :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'
```

```
100% [ -----
======>] 114.57M 36.9MB/s
2021-09-24 08:38:18 (36.9 MB/s) - '/tmp/go1.13.9.linux-amd64.tar.gz' saved
[120139686/120139686]
Done.
Please run and add 'export PATH=$PATH:/usr/local/go/bin' into your shell profile.
You can proceed to run arktos-up.sh if you want to launch a single-node cluster.
ubuntu@instance-1:~\ echo export PATH=\PATH:/usr/local/go/bin\ >> ~/.profile
ubuntu@instance-1:~$ echo cd \$HOME/go/src/k8s.io/arktos >> ~/.profile
ubuntu@instance-1:~$ source ~/.profile
ubuntu@instance-1:~/go/src/k8s.io/arktos$ CNIPLUGIN=mizar ./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 mizar; arktos will use mizar to provision pod network
Checking arktos containerd...
arktos containerd not found...
--2021-09-24 08:42:02--
https://github.com/containerd/containerd/releases/download/v1.4.2/containerd-1.4.2-li
nux-amd64.tar.gz
Resolving github.com (github.com)... 140.82.112.4
Connecting to github.com (github.com) | 140.82.112.4 | :443... connected.
HTTP request sent, awaiting response... 302 Found
Location:
https://github-releases.githubusercontent.com/46089560/5cad0000-2fc0-11eb-8e3a-ed435a
7b945c?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20210
924%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20210924T084202Z&X-Amz-Expires=300&X-A
mz-Signature=c093d11507a982d9c269068c9eab7ebf4850f29d0ef2c536a11ec06a4c77b280&X-Amz-S
ignedHeaders=host&actor id=0&key id=0&repo id=46089560&response-content-disposition=a
ttachment%3B%20filename%3Dcontainerd-1.4.2-linux-amd64.tar.gz&response-content-type=a
pplication%2Foctet-stream [following]
--2021-09-24 08:42:02--
https://github-releases.githubusercontent.com/46089560/5cad0000-2fc0-11eb-8e3a-ed435a
7b945c?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A%2F20210
924%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20210924T084202Z&X-Amz-Expires=300&X-A
mz-Signature=c093d11507a982d9c269068c9eab7ebf4850f29d0ef2c536a11ec06a4c77b280&X-Amz-S
ignedHeaders=host&actor id=0&key id=0&repo id=46089560&response-content-disposition=a
ttachment%3B%20filename%3Dcontainerd-1.4.2-linux-amd64.tar.gz&response-content-type=a
pplication%2Foctet-stream
Resolving github-releases.githubusercontent.com
(github-releases.githubusercontent.com)... 185.199.108.154, 185.199.110.154,
185.199.109.154, ...
Connecting to github-releases.githubusercontent.com
(github-releases.githubusercontent.com) | 185.199.108.154 | :443... connected.
```

```
HTTP request sent, awaiting response... 200 OK
Length: 31160021 (30M) [application/octet-stream]
Saving to: '/home/ubuntu/arktos-containerd/containerd-1.4.2-linux-amd64.tar.gz'
containerd-1.4.2-linux-amd64.tar.gz
======>] 29.72M 148MB/s
                                                 in 0.2s
2021-09-24 08:42:03 (148 MB/s) -
'/home/ubuntu/arktos-containerd/containerd-1.4.2-linux-amd64.tar.gz' saved
[31160021/31160021]
installing arktos containerd...
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
--2021-09-24 08:42:20--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
y/apparmor/libvirt-qemu
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.108.133,
185.199.109.133, 185.199.110.133, ...
Connecting to raw.githubusercontent.com
(raw.githubusercontent.com) | 185.199.108.133 | :443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 6578 (6.4K) [text/plain]
Saving to: '/tmp/libvirt-qemu'
/tmp/libvirt-gemu
100%[-----
=======>]
                                  6.42K --.-KB/s
2021-09-24 08:42:20 (59.1 MB/s) - '/tmp/libvirt-qemu' saved [6578/6578]
Getting runtime deployment file libvirtd
--2021-09-24 08:42:20--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
y/apparmor/libvirtd
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133,
185.199.110.133, 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: 1617 (1.6K) [text/plain]
Saving to: '/tmp/libvirtd'
/tmp/libvirtd
=======>]
                                  1.58K --.-KB/s
2021-09-24 08:42:21 (26.3 MB/s) - '/tmp/libvirtd' saved [1617/1617]
Getting runtime deployment file virtlet
--2021-09-24 08:42:21--
```

```
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
v/apparmor/virtlet
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133,
185.199.110.133, 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: 2582 (2.5K) [text/plain]
Saving to: '/tmp/virtlet'
/tmp/virtlet
100%[-----
======>] 2.52K --.-KB/s in 0s
2021-09-24 08:42:21 (37.4 MB/s) - '/tmp/virtlet' saved [2582/2582]
Getting runtime deployment file vms
--2021-09-24 08:42:21--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
y/apparmor/vms
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133,
185.199.110.133, 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: 485 [text/plain]
Saving to: '/tmp/vms'
/tmp/vms
2021-09-24 08:42:21 (32.1 MB/s) - '/tmp/vms' saved [485/485]
Getting runtime deployment file vmruntime.yaml
--2021-09-24 08:42:21--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
y/data/virtlet-ds.yaml
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133,
185.199.110.133, 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: 11643 (11K) [text/plain]
Saving to: '/tmp/vmruntime.yaml'
/tmp/vmruntime.yaml
100%[-----
======>] 11.37K --.-KB/s in 0s
2021-09-24 08:42:21 (57.2 MB/s) - '/tmp/vmruntime.yaml' saved [11643/11643]
Getting runtime deployment file images.yaml
--2021-09-24 08:42:21--
https://raw.githubusercontent.com/futurewei-cloud/arktos-vm-runtime/release-0.6/deplo
```

```
y/images.yaml
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133,
185.199.110.133, 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: 254 [text/plain]
Saving to: '/tmp/images.yaml'
/tmp/images.yaml
=======>]
                                        254 --.-KB/s
2021-09-24 08:42:21 (16.9 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'
+++ [0924 08:42:29] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/deepcopy-gen
+++ [0924 08:42:29] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/defaulter-gen
+++ [0924 08:42:29] Building go targets for linux/amd64:
    ./vendor/k8s.io/code-generator/cmd/conversion-gen
+++ [0924 08:42:29] Building go targets for linux/amd64:
    ./vendor/k8s.io/kube-openapi/cmd/openapi-gen
+++ [0924 08:42:33] Building go targets for linux/amd64:
    ./vendor/github.com/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 3063 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 3063 and retry
the command.
~/go/src/k8s.io/arktos
Inspecting copyright files, writing logs to output/ArktosCopyrightTool.log
+++ [0924 08:43:01] 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 3063 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 3063 and retry
the command.
~/go/src/k8s.io/arktos
Inspecting copyright files, writing logs to _output/ArktosCopyrightTool.log
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-am
d64.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:/bin:/usr/games:/usr/local/ga
mes:/snap/bin:/usr/local/go/bin:/home/ubuntu/go/src/k8s.io/arktos/third_party/etcd;
downloading instead...
            % Received % Xferd Average Speed
 % Total
                                              Time
                                                      Time
                                                               Time Current
                               Dload Upload
                                              Total
                                                      Spent
                                                               Left Speed
                       0
 a
                            0
                                   0
                                          0 --:--:--
100
     623
         100
                623
                       0
                            0
                                1745
                                          0 --:--:- 1745
100 9.8M 100 9.8M
                      0
                            0 18.8M
                                          0 --:--: 73.3M
 % Total
            % Received % Xferd Average Speed
                                             Time
                                                      Time
                                                               Time Current
                               Dload Upload
                                              Total
                                                      Spent
       0
                            0
                                          0 --:--:--
 a
            a
                  a
                       a
                                   a
                                          0 --:--:--
100
     627
          100
                627
                                2957
                       0
                            0
100 2224k 100 2224k
                            0 3944k
                                          0 --:--:- 3944k
                       0
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 instance-1 --listen-peer-urls http://10.128.0.59:2380
--advertise-client-urls http://10.128.0.59:2379 --data-dir /tmp/tmp.dEwMYagHXD
--listen-client-urls http://10.128.0.59:2379,http://127.0.0.1:2379 --listen-peer-urls
http://10.128.0.59:2380 --debug > "/tmp/etcd.log" 2>/dev/null
Waiting for etcd to come up.
+++ [0924 08:46:00] On try 2, etcd: : {"health":"true"}
{"header":{"cluster_id":"10894971493022103518","member_id":"168031398254186556","revi
sion":"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
140522984870336: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
139891853341120: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
140616763154880: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'
2021/09/24 08:46:01 [INFO] generate received request
2021/09/24 08:46:01 [INFO] received CSR
2021/09/24 08:46:01 [INFO] generating key: rsa-2048
2021/09/24 08:46:01 [INFO] encoded CSR
2021/09/24 08:46:01 [INFO] signed certificate with serial number
311094590621045805251845713355248191307341959724
2021/09/24 08:46:01 [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").
2021/09/24 08:46:01 [INFO] generate received request
2021/09/24 08:46:01 [INFO] received CSR
2021/09/24 08:46:01 [INFO] generating key: rsa-2048
2021/09/24 08:46:01 [INFO] encoded CSR
2021/09/24 08:46:01 [INFO] signed certificate with serial number
685373186369258302622679632657996246958194021567
2021/09/24 08:46:01 [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").
2021/09/24 08:46:01 [INFO] generate received request
2021/09/24 08:46:01 [INFO] received CSR
```

```
2021/09/24 08:46:01 [INFO] generating key: rsa-2048
2021/09/24 08:46:01 [INFO] encoded CSR
2021/09/24 08:46:01 [INFO] signed certificate with serial number
256845506716355676507138806231309957676087738922
2021/09/24 08:46:01 [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").
2021/09/24 08:46:01 [INFO] generate received request
2021/09/24 08:46:01 [INFO] received CSR
2021/09/24 08:46:01 [INFO] generating key: rsa-2048
2021/09/24 08:46:02 [INFO] encoded CSR
2021/09/24 08:46:02 [INFO] signed certificate with serial number
417231685040645135441484463963723101968092150792
2021/09/24 08:46:02 [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").
2021/09/24 08:46:02 [INFO] generate received request
2021/09/24 08:46:02 [INFO] received CSR
2021/09/24 08:46:02 [INFO] generating key: rsa-2048
2021/09/24 08:46:02 [INFO] encoded CSR
2021/09/24 08:46:02 [INFO] signed certificate with serial number
676222683773306262500659458625904926536142135538
2021/09/24 08:46:02 [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").
2021/09/24 08:46:02 [INFO] generate received request
2021/09/24 08:46:02 [INFO] received CSR
2021/09/24 08:46:02 [INFO] generating key: rsa-2048
2021/09/24 08:46:02 [INFO] encoded CSR
2021/09/24 08:46:02 [INFO] signed certificate with serial number
330756356505514251275303798981375775916874813068
2021/09/24 08:46:02 [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").
2021/09/24 08:46:02 [INFO] generate received request
2021/09/24 08:46:02 [INFO] received CSR
2021/09/24 08:46:02 [INFO] generating key: rsa-2048
2021/09/24 08:46:03 [INFO] encoded CSR
2021/09/24 08:46:03 [INFO] signed certificate with serial number
```

```
469839532628401977435874288114783507475462809221
2021/09/24 08:46:03 [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").
2021/09/24 08:46:03 [INFO] generate received request
2021/09/24 08:46:03 [INFO] received CSR
2021/09/24 08:46:03 [INFO] generating key: rsa-2048
2021/09/24 08:46:03 [INFO] encoded CSR
2021/09/24 08:46:03 [INFO] signed certificate with serial number
534904540788086329296309637498141775642562606308
2021/09/24 08:46:03 [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").
2021/09/24 08:46:04 [INFO] generate received request
2021/09/24 08:46:04 [INFO] received CSR
2021/09/24 08:46:04 [INFO] generating key: rsa-2048
2021/09/24 08:46:04 [INFO] encoded CSR
2021/09/24 08:46:04 [INFO] signed certificate with serial number
434618386080199238330534761334541984131490359347
2021/09/24 08:46:04 [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
+++ [0924 08:46:19] On try 13, 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
2021/09/24 08:46:20 [INFO] generate received request
2021/09/24 08:46:20 [INFO] received CSR
2021/09/24 08:46:20 [INFO] generating key: rsa-2048
2021/09/24 08:46:20 [INFO] encoded CSR
2021/09/24 08:46:20 [INFO] signed certificate with serial number
621594676858687177675422292566864411121400869301
2021/09/24 08:46:20 [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").
service/kube-dns created
serviceaccount/kube-dns created
```

```
configmap/kube-dns created
deployment.apps/kube-dns created
Kube-dns addon successfully deployed.
2021/09/24 08:46:21 [INFO] generate received request
2021/09/24 08:46:21 [INFO] received CSR
2021/09/24 08:46:21 [INFO] generating key: rsa-2048
2021/09/24 08:46:21 [INFO] encoded CSR
2021/09/24 08:46:21 [INFO] signed certificate with serial number
282827136518523046261960976852152852180969026230
2021/09/24 08:46:21 [WARNING] This certificate lacks a "hosts" field. This makes it
unsuitable for
websites. For more information see the Baseline Requirements for the Issuance and
of Publicly-Trusted Certificates, v.1.1.6, from the CA/Browser Forum
(https://cabforum.org);
specifically, section 10.2.3 ("Information Requirements").
kubelet (14632) is running.
customresourcedefinition.apiextensions.k8s.io/bouncers.mizar.com created
customresourcedefinition.apiextensions.k8s.io/dividers.mizar.com created
customresourcedefinition.apiextensions.k8s.io/droplets.mizar.com created
customresourcedefinition.apiextensions.k8s.io/endpoints.mizar.com created
customresourcedefinition.apiextensions.k8s.io/subnets.mizar.com created
customresourcedefinition.apiextensions.k8s.io/vpcs.mizar.com created
serviceaccount/mizar-operator created
clusterrolebinding.rbac.authorization.k8s.io/mizar-operator created
daemonset.apps/mizar-daemon created
deployment.apps/mizar-operator created
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
```

```
Waiting for node ready at api server
```

```
Waiting for node ready at api server
```

Waiting for node ready at api server instance-1 Ready <none> 7m25s v0.8.0 node/instance-1 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 **DESIRED** UP-TO-DATE NAME CURRENT READY AVAILABLE NODE SELECTOR AGE virtlet 1 0 1 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 2.2.0-1 from Kata Containers (katacontainers√) installed * Checking Kata compatibility

No newer release available time="2021-09-24T08:54:06Z" level=error msg="CPU property not found" arch=amd64 description="Virtualization support" name=vmx pid=10170 source=runtime type=flag time="2021-09-24T08:54:06Z" 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=10170 source=runtime time="2021-09-24T08:54:06Z" level=error msg="kernel property not found" arch=amd64 description="Host kernel accelerator for virtio" name=vhost pid=10170 source=runtime type=module time="2021-09-24T08:54:06Z" 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=10170 source=runtime time="2021-09-24T08:54:06Z" level=error msg="kernel property not found" arch=amd64 description="Host kernel accelerator for virtio network" name=vhost net pid=10170 source=runtime type=module time="2021-09-24T08:54:06Z" 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=10170 source=runtime time="2021-09-24T08:54:06Z" level=error msg="kernel property not found" arch=amd64 description="Host Support for Linux VM Sockets" name=vhost vsock pid=10170 source=runtime type=module time="2021-09-24T08:54:06Z" 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=10170 source=runtime time="2021-09-24T08:54:06Z" level=error msg="kernel property not found" arch=amd64 description="Intel KVM" name=kvm intel pid=10170 source=runtime type=module time="2021-09-24T08:54:06Z" 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=10170 source=runtime time="2021-09-24T08:54:06Z" level=error msg="kernel property not found" arch=amd64 description="Kernel-based Virtual Machine" name=kvm pid=10170 source=runtime type=module time="2021-09-24T08:54:06Z" level=error msg="ERROR: System is not capable of running Kata

```
Containers" arch=amd64 name=kata-runtime pid=10170 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
0r
 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://instance-1:6443
--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
```