Deployment and Notice

Kiloview NDI Core Server Deployment Guide

(V2.0 version)

CONTENTS

Note

To deploy the NDI Core, you need to load the NDI Core mirror locally. Please contact the sales staff at Kiloview or send an email to info@kiloview.com to obtain the mirror.

1 Kiloview NDI Core server deployment

1.1 Server environment preparation

1.1.1 Hardware environment

Processor：High frequency CPU, such as E2288G, 12 Generation Core i5 12600K.

Hard disk: 64G or higher.

Memory: 4GB RAM or above 16G.

Network card: one or more 10G or higher speed network card.

1.1.2 Software environment

Operation system: Linux64-bit operating system（Ubuntu 18.04, 20.04）.

1.1.3 Network environment

Internet application tools and image files.

LAN Bandwidth: 10 Gigabit networks.

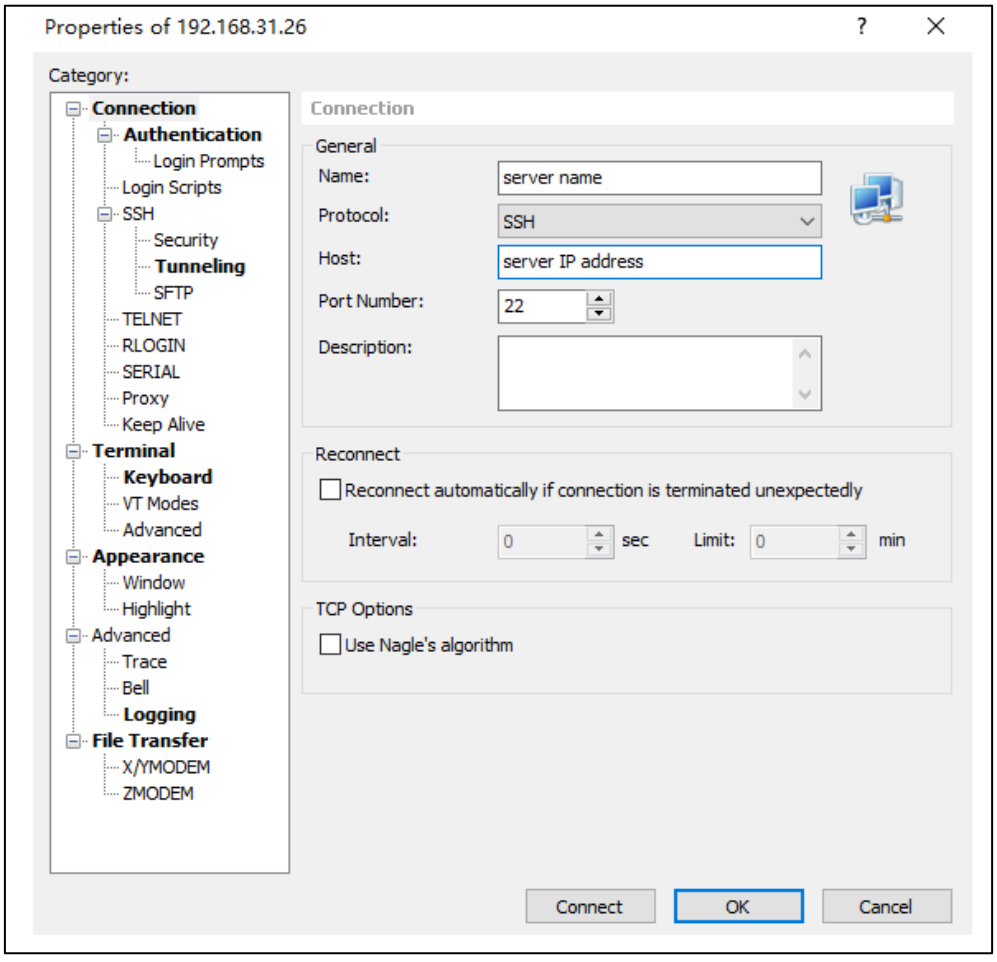
1.2 Login to server

You can use remote terminal software to login to the server, Xshell or PuTTy is recommended.

Xshell download website：https://www.netsarang.com/zh/xshell-download/

PuTTy download website：https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html

1) After installing Xshell, enter IP address of the server in the new session and use SSH protocol to communicate. The default port is 22, click "Ok" after input completed.



2) Enter the user name and password in the pop-up dialog box. Ordinary users need sudo to obtain management right or log in as root user. The deployment process in the following is completed by root user.

   You can enter "sudo su- " in command window to switch to the root user.

1.3 Deployment guide

Step 1: Install container. Enter "curl -fsSL https://get.docker.com | bash" in the terminal window.

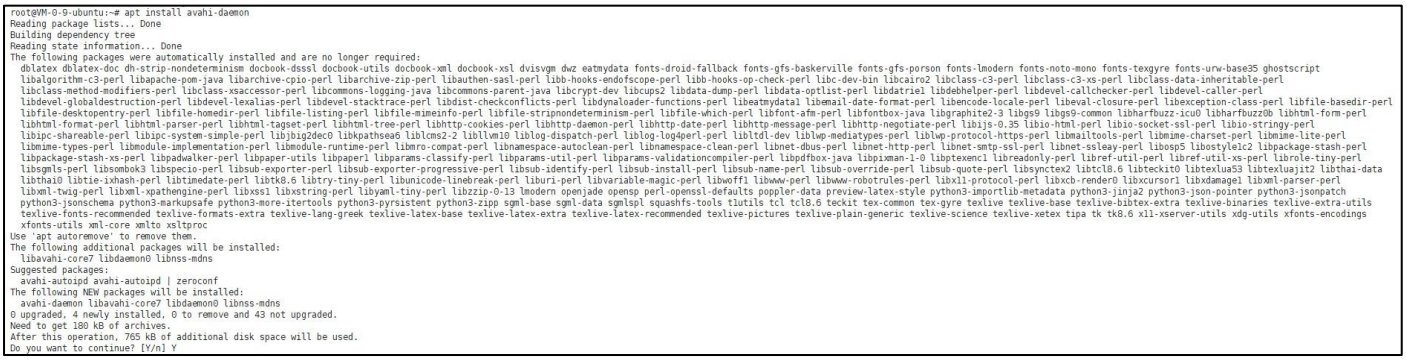
```
root@kiloview:/# curl -fsSL https://get.docker.com | sh

# Executing docker install script, commit: 93d2499759296ac1f9c510605fef85052a2c32be

+ sh -c apt-get update -qq >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get install -y -qq apt-transport-https ca-certificates curl >/dev/null
+ sh -c curl -fsSL "https://download.docker.com/linux/ubuntu/gpg" | gpg --dearmor --yes -o /usr/share/keyrings/docker-archive-
keyring.gpg
+ sh -c echo "deb [arch=amd64 signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu
focal stable" > /etc/apt/sources.list.d/docker.list
+ sh -c apt-get update -qq >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get install -y -qq --no-install-recommends  docker-ce-cli docker-scan-plugin docker-
ce >/dev/null
+ version_gte 20.10
+ [ -z  ]
+ return 0
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get install -y -qq docker-ce-rootless-extras >/dev/null
+ sh -c docker version
  Client: Docker Engine - Community
   Version:           20.10.11
   API version:       1.41
   Go version:        go1.16.9
   Git commit:        dea9396
   Built:             Thu Nov 18 00:37:06 2021
   OS/Arch:           linux/amd64
   Context:           default
   Experimental:      true

Server: Docker Engine - Community
 Engine:
  Version:          20.10.11
  API version:      1.41 (minimum version 1.12)
  Go version:       go1.16.9
  Git commit:       847da18
  Built:            Thu Nov 18 00:35:15 2021
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.4.12
  GitCommit:        7b11cfaabd73bb80907dd23182b9347b4245eb5d
 runc:
  Version:          1.0.2
  GitCommit:        v1.0.2-0-g52b36a2
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
```

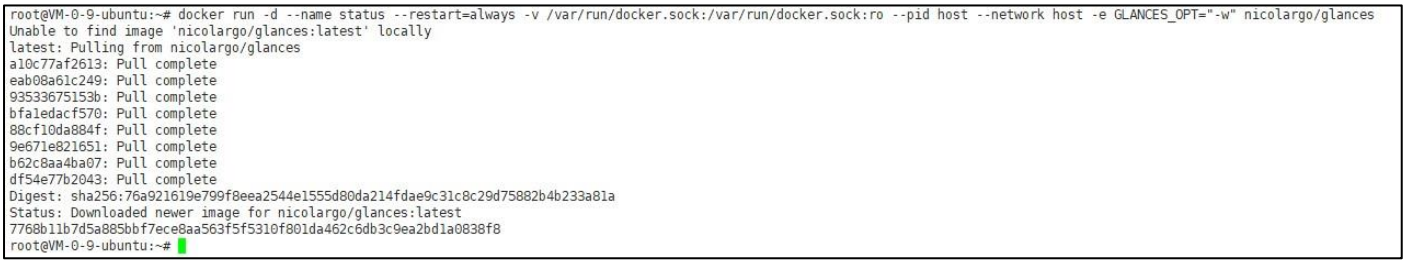
Step 2: Install NDI discovery tool. Enter “apt install avahi-daemon” in the terminal window.



Enter Y behind “Do you want to continue?[Y/n]”. Waiting for the installation completed.

Step 3: Install netdata to obtain CPU, network datasheet, etc. Enter

“docker run -d --name status --restart=always -v /var/run/docker.sock:/var/run/docker.sock:ro --pid host --network host -e GLANCES_OPT="-w" nicolargo/glances” in the terminal window.



Step 4: Upload NDI Core image to the server

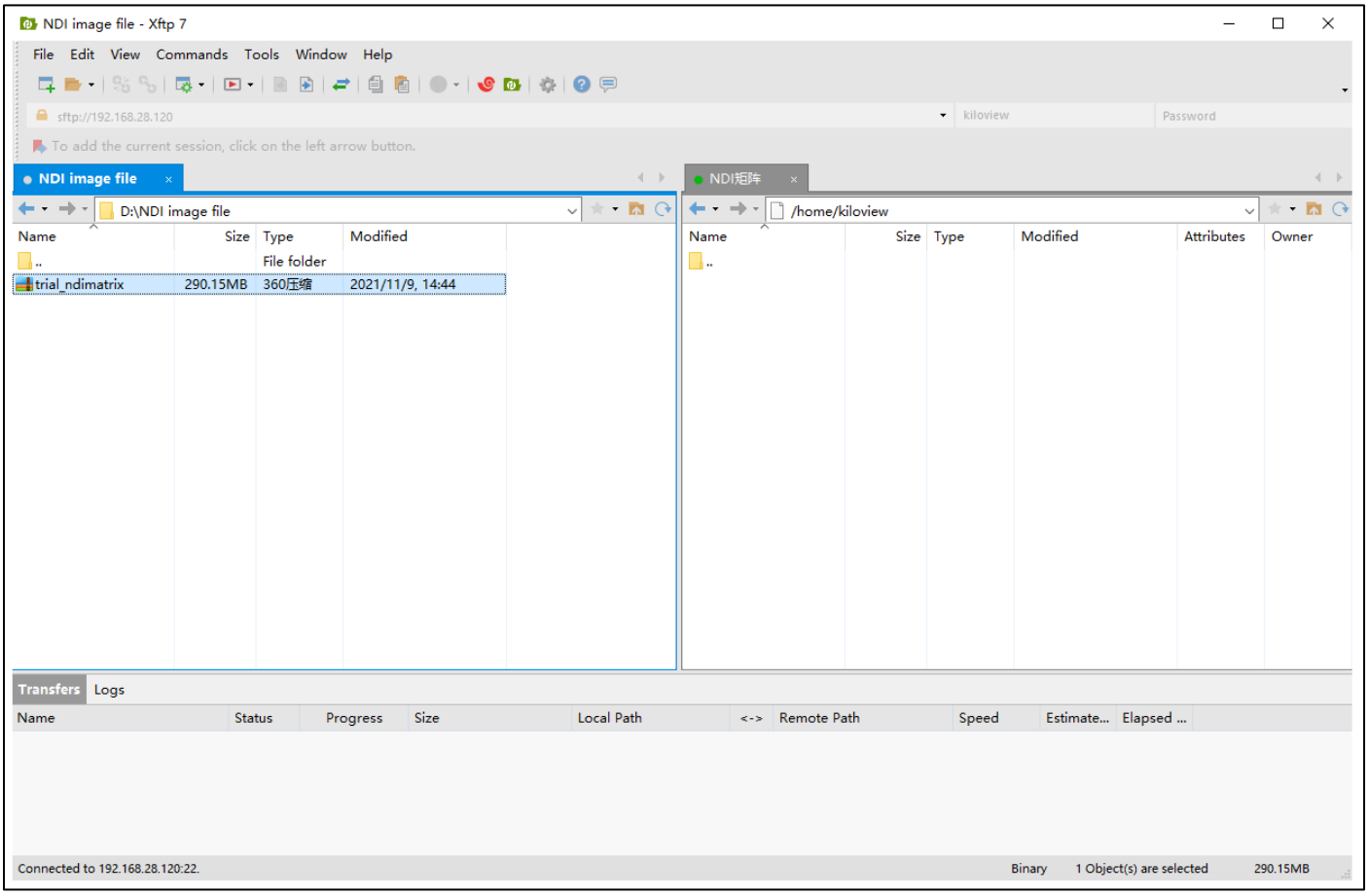
(1) Upload NDI Core image from personal computer to server.

Note

NDI Core image need to be uploaded to Liunx system from NDI local personal computer, which is required to transfer files by a file transfer tool. Deployers can use xftp files transferring tool that comes with the Xhell or other file transfer tool, such as SecureCRT.

Step 1: Click file transfer icon in the Xhell.

Step 2: Drag NDI Core image file in your computer from left window to the right window, to finish files transferring from local PC to server. (Please contact Kiloview sales or mail to info@kiloview.com with NDI Core image documents).



(2) Load NDI Core image in the server

docker load -i kv_ndicore_pro_011801.tar

Note

If the location of the NDI image file is not in the current directory, you need to specify the folder where NDI image file is located.

For example: If the directory where NDI image file is located as /home/kiloview, then the NDI image file loading command is

"docker load -i /home/kiloview/kv_ndicore_pro_011801.tar"

```
root@VM-0-9-ubuntu:/home/ubuntu# docker load -i kv_ndicore_pro_011801.tar
cc967c529ced: Loading layer [==================================================>]  65.57MB/65.57MB
2c6ac8e5063e: Loading layer [==================================================>]  991.2kB/991.2kB
6c01b5a53aac: Loading layer [==================================================>]  15.87kB/15.87kB
e0b3afb09dc3: Loading layer [==================================================>]  3.072kB/3.072kB
9d3cadc3d17e: Loading layer [==================================================>]  27.69MB/27.69MB
db6e2a638ab1: Loading layer [==================================================>]  114.3MB/114.3MB
9f2fd036a4a9: Loading layer [==================================================>]  3.584kB/3.584kB
20b2e7d325d4: Loading layer [==================================================>]   2.56kB/2.56kB
758a8236e8b9: Loading layer [==================================================>]  2.048kB/2.048kB
8abff239dac8: Loading layer [==================================================>]  1.536kB/1.536kB
ac9c6590408b: Loading layer [==================================================>]  4.643MB/4.643MB
bda72356d77c: Loading layer [==================================================>]  9.728kB/9.728kB
75810feecf4b: Loading layer [==================================================>]  39.62MB/39.62MB
7e47cfdd3260: Loading layer [==================================================>]    556kB/556kB
bc90e555b3c8: Loading layer [==================================================>]  3.072kB/3.072kB
87bf4592c061: Loading layer [==================================================>]  36.35kB/36.35kB
8017a395ddee: Loading layer [==================================================>]  16.38kB/16.38kB
f275a7a61f6f: Loading layer [==================================================>]  10.46MB/10.46MB
e98830ac8618: Loading layer [==================================================>]  14.39MB/14.39MB
a10c5d895642: Loading layer [==================================================>]  927.7kB/927.7kB
87e801439ab8: Loading layer [==================================================>]  9.403MB/9.403MB
1488b496f22c: Loading layer [==================================================>]  879.6kB/879.6kB
4ee4f7e0dd9a: Loading layer [==================================================>]  894.5kB/894.5kB
b0439f642b95: Loading layer [==================================================>]  1.386MB/1.386MB
f0af0a693169: Loading layer [==================================================>]  891.9kB/891.9kB
5168f669e526: Loading layer [==================================================>]  1.038MB/1.038MB
8687bcb79567: Loading layer [==================================================>]  1.086MB/1.086MB
2360bb09cc5c: Loading layer [==================================================>]  2.048kB/2.048kB
addf2d3eb25e: Loading layer [==================================================>]  10.31MB/10.31MB
19bd1a2d4a1c: Loading layer [==================================================>]  52.75MB/52.75MB
c2e76cee58fa: Loading layer [==================================================>]  3.584kB/3.584kB
df304ad5eca3: Loading layer [==================================================>]  636.9kB/636.9kB
3396c01c88c1: Loading layer [==================================================>]  242.7kB/242.7kB
Loaded image: kiloview/kv_ndicore_senior_011801:latest
```

Step 4: Run container

docker run -d -v /root/cp_data3:/data/configs -v /etc/timezone:/etc/timezone -v /etc/localtime:/etc/localtime -v /var/run/avahi-daemon:/var/run/avahi-daemon -v /var/run/dbus:/var/run/dbus --restart=always --name kv_ndicore_senior_011801 --network host --privileged=true kiloview/kv_ndicore_senior_011801:latest

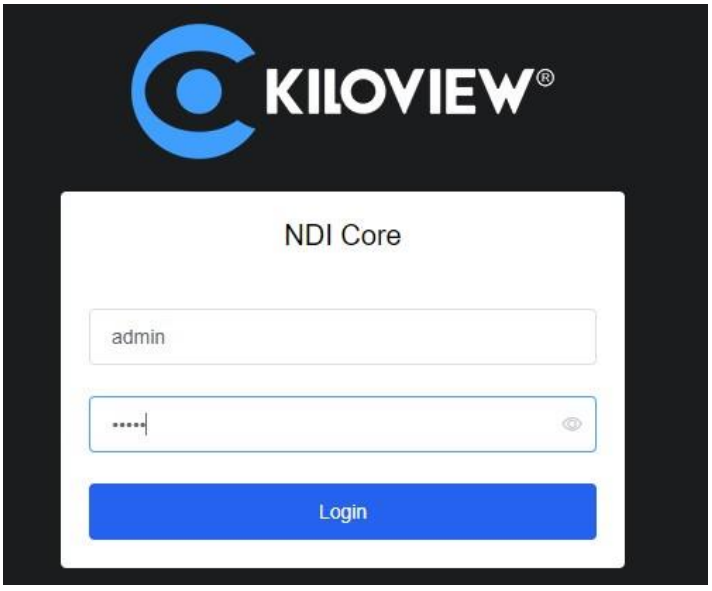
```
3396c01c88c1: Loading layer [==================================================>]  242.7kB/242.7kB
Loaded image: kiloview/kv_ndicore_senior_011801:latest
root@VM-0-9-ubuntu:/home/ubuntu# docker run -d -v /root/cp_data3:/data/configs -v /etc/timezone:/etc/timezone -v
/etc/localtime:/etc/localtime -v /var/run/avahi-daemon:/var/run/avahi-daemon -v /var/run/dbus:/var/run/dbus --restart=always --
name kv_ndicore_senior_011801 --network host --privileged=true kiloview/kv_ndicore_senior_011801:latest
db1924fe5313aa9201c2054877d61882633adfdbefe0001ac5e6642a6d6c59ba
```

Note:

The last image name in the above command (like kv_ndicore_senior_011801 in the below picture) must be the same as the name behind the loaded image at the top of the command line.

1.4 Login authentications

Enter "IP address of server:81" in the browser (Google is recommended), press enter to display the login interface of the NDI Core. The default user name and password are ***admin***.



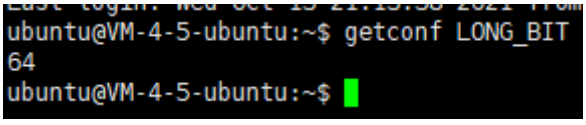
2 General Questions and Solutions

2.1 If there is an error message during the deployment process.

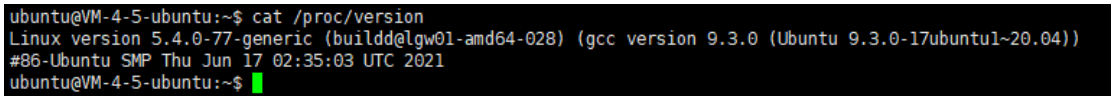
Solution:

Please check the version of your operation system, currently it only supports Linux64-bit operating system (Ubuntu 18.04+ / Debian 9+)

(1) Check linux digits: getconf LONG_BIT



(2) Check the version number of the linux: cat /proc/version



2.2 No response for a long time for the installation of the docker.

Solution:

The process of the installation is relatively slow, please wait patiently. You can use command "docker version" to check and confirm whether the installation is successful.

```
root@ndi:~/cp_data3# docker version
Client: Docker Engine - Community
 Version:           20.10.6
 API version:       1.41
 Go version:        go1.13.15
 Git commit:        370c289
 Built:             Fri Apr  9 22:47:17 2021
 OS/Arch:           linux/amd64
 Context:           default
 Experimental:      true

Server: Docker Engine - Community
 Engine:
  Version:          20.10.6
  API version:      1.41 (minimum version 1.12)
  Go version:       go1.13.15
  Git commit:       8728dd2
  Built:            Fri Apr  9 22:45:28 2021
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.4.4
  GitCommit:        05f951a3781f4f2c1911b05e61c160e9c30eaa8e
 runc:
  Version:          1.0.0-rc93
  GitCommit:        12644e614e25b05da6fd08a38ffa0cfe1903fdec
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
root@ndi:~/cp_data3#
```

2.3 Fail to pull image

```
root@ndi:/# docker run -d --name status --restart=always -v /var/run/docker.sock:/var/run/docker.sock:ro --pid host --network host -e GLANCES_OPT="-w" nicolargo/glances
Unable to find image 'nicolargo/glances:latest' locally
latest: Pulling from nicolargo/glances
e1acddbe380c: Pulling fs layer
ecc7ff4d2622: Pulling fs layer
dae1d9fd74c1: Pulling fs layer
07bc5aa6fc42: Waiting
76f124aca9af: Waiting
9c40be6c51a4: Waiting
c125888d0329: Waiting
342605490b7f: Waiting
docker: error pulling image configuration: Get https://production.cloudflare.docker.com/registry-v2/docker/registry/v2/blobs/sha256/b3/b39a65d9d3bba1f740dd5c3fde71c65ab5f7113448ee923d459547969d65e222/data?verify=1636450334-W9xG%2BdO5e3GWgJ4
08FJ%2FByyQne4%3D: dial tcp 104.18.124.25:443: i/o timeout.
See 'docker run --help'.
root@ndi:/# docker run -d --name status --restart=always -v /var/run/docker.sock:/var/run/docker.sock:ro --pid host --network host -e GLANCES_OPT="-w" nicolargo/glances
Unable to find image 'nicolargo/glances:latest' locally
latest: Pulling from nicolargo/glances
docker: error parsing HTTP 408 response body: invalid character '<' looking for beginning of value: "<html><body><h1>408 Request Time-out</h1>\nYour browser didn't send a complete request in time.\n</body></html>\n\n".
See 'docker run --help'.
root@ndi:/#
```

Solution:

To pull the image, you need to get the image file by the internet. If the network delay is high or you cannot connect to the internet, kindly check whether the network is smooth by ping an external website.

2.4 NDI Core could not be logged in normally

Solution:

Check the server whether it could start normally. "win+R" to open command prompt window -> "cmd" -> "ping server ip".

(1) If it is able to ping the server IP, please check via below command.

<1>Check the status of running docker: systemctl status docker

```
root@ndi:~/cp_data3# systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
     Active: active (running) since Tue 2021-11-09 09:00:05 UTC; 1 day 1h ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 53134 (dockerd)
      Tasks: 25
     Memory: 640.7M
     CGroup: /system.slice/docker.service
             └─53134 /usr/bin/dockerd -H fd:// -H 0.0.0.0:2375 --containerd=/run/containerd/containerd.sock
```

If docker could not start normally, start docker: systemctl start docker

<2>Check the status of running container: docker ps -a

```
root@ndi:~/cp_data3# docker ps -a
CONTAINER ID   IMAGE                              COMMAND                  CREATED       STATUS       PORTS     NAMES
563282ea0ee8   kiloview/trial_ndimatrix:latest   "/start_server.sh"       24 hours ago   Up 24 hours            trial_ndimatric
2594ce003d0d   nicolargo/glances                  "/bin/sh -c 'python3…"   24 hours ago   Up 24 hours            status
root@ndi:~/cp_data3#
```

If container runs abnormally, execute below command to delete container and image, then redeploy as deployment guide.

Stop all containers: docker stop $(docker ps -aq)

Delete all containers: docker rm $(docker ps -aq)

Delete all images: docker rmi $(docker images -q)

(2) If it is unable to ping the server IP, please check as below instruction.

<1> Check whether maintenance PC and server run normally or not and whether LAN port light flashes normally or not.

<2> The server IP maybe already changed, directly connect server "win+R" -> "cmd" -> "ifconfig", and apply changed IP address: 81 to visit.

2.5 How to set static IP address for NDI Core

Solution:

The ways of setting static IP address may be different as different operation system. Configuration ways in below applies to ubuntu 20.04 version.

sudo vi /etc/netplan/00-installer-config.yaml

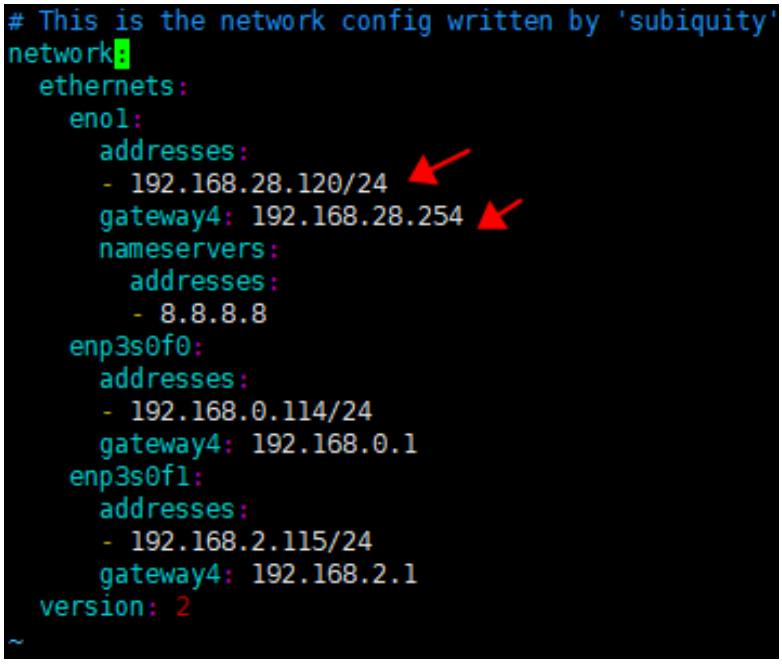
Note:

(1) The Internet configuration file name for different minor versions may be different, as "00-installer-config.yaml " files name is different, enter netplan file via cd /etc/netplan, search Internet configuration file, enter corresponding Internet configuration files by vi command.

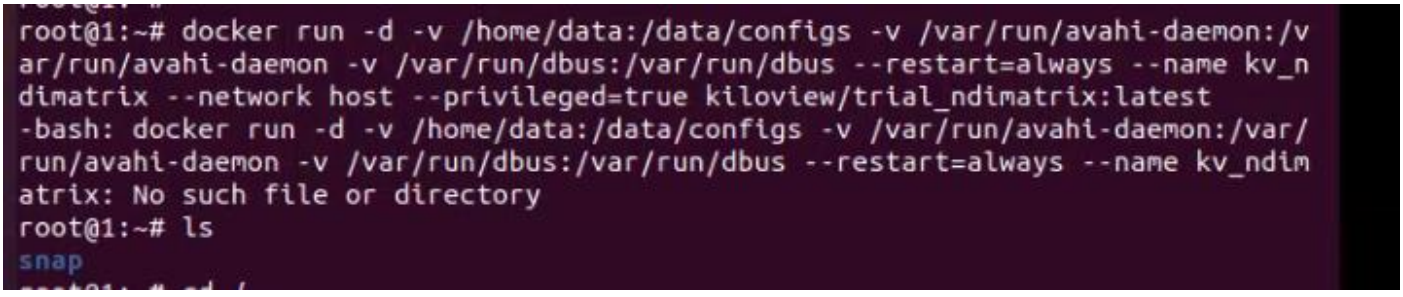
(2) Press "i" to access the file editing mode.

(3) After inputting, enter "ESC", and then enter":wq ", save the file and exit.

(4) If you make a mistake input and don’ t want to save the file, press “ESC” and input ” :q!” , exit without saving files.



2.6 It shows "no such file or directory" error during command execution.



Solution:

When you copy the command from the file, it may include the form character and cause the command to change. When you encounter this, please execute the command manually.

For more questions, please contact us via:

https://www.kiloview.com/en/support

Please scan with browser.

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