Instruction about how to set up personal VPN via Docker

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The red color text is the command I use to finish this project and black text is the description. :)

1. First of all, we should build a ubuntu droplet. Go to the link below and create your account

<https://m.do.co/c/4d7f4ff9cfe4>

1. after create account, pick a droplet. Ubuntu 20.04 ,Basic and Regular intel CPU is required. You can choose Other option whatever you like
2. after build the sever. Turn it on then open the console so you can access it by command.
3. Install docker.

sudo apt install apt-transport-https ca-certificates curl software-properties-common -y

This command install the necessary tools



curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add –

Add Docker Key

1. Add a Docker repo.

This is for 32bit/64bit OS

sudo add-apt-repository \

"deb [arch=amd64] https://download.docker.com/linux/ubuntu \

$(lsb\_release -cs) \

stable"

1. Install Docker

sudo apt install docker-ce -y

1. Install Docker-Compose

sudo curl -L "https://github.com/docker/compose/releases/download/1.27.4/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose

1. Set the permission so that we can execute file

sudo chmod +x /usr/local/bin/docker-compose

1. Run these 3 command to create two directory and a compose file.

mkdir -p ~/wireguard/

mkdir -p ~/wireguard/config/

nano ~/wireguard/docker-compose.yml

1. Copy the following text to docker-compose.yml

Change the TZ to your timezone

Change the SERVERURL to your server’s Ip address which can check on the digital ocean website.

version: '3.8'

services:

wireguard:

container\_name: wireguard

image: linuxserver/wireguard

environment:

- PUID=1000

- PGID=1000

- TZ=Asia/Hong\_Kong

- SERVERURL= 147.182.245.28

- SERVERPORT=51820

- PEERS=pc1,pc2,phone1

- PEERDNS=auto

- INTERNAL\_SUBNET=10.0.0.0

ports:

- 51820:51820/udp

volumes:

- type: bind

source: ./config/

target: /config/

- type: bind

source: /lib/modules

target: /lib/modules

restart: always

cap\_add:

- NET\_ADMIN

- SYS\_MODULE

sysctls:

- net.ipv4.conf.all.src\_valid\_mark=1

1. Comes to the directory which our compose file locate and use this file to build wireguard.

cd ~/wireguard/

docker-compose up -d

1. You will see the QR code of wireguard VPN by running following command.it can be used on your phone. Download the wireguard application and create from QR code to connect to wireguard.

docker-compose logs -f wireguard

1. For PC, go to this website to install wireguard.

[Installation - WireGuard](https://www.wireguard.com/install/)

After install finished. Use the sever console comes to this directory

~/wireguard/config/{username} and look for the file which username.conf

Copy it down to your computer. Then open the wireguard and add the new tunnel by the file you just copy from sever.

1. Comes to https://ipleak.net/ to test your ip address with VPN/without VPN

电脑萤幕的截图

描述已自动生成

Source:

[Setup Wireguard VPN server with Docker (thematrix.dev)](https://thematrix.dev/setup-wireguard-vpn-server-with-docker/)

And in class presentation.