

# WireGuard

## WireGuard Server

- [wireguard-install](#)

## WireGuard Client

- YT: [WireGuard - How to Install and Configure WireGuard VPN Client on Ubuntu | Debian | LinuxMint - YouTube](#)
- [wireguard](#) - wireguard gtk gui for linux
- [How to configure WireGuard VPN client with NetworkManager GUI](#)
- [How to set up Wireguard VPN under Linux - Tutorial - YouTube](#)

## wg-quick

### Installation

```
# Ubuntu/Debian
sudo apt install wireguard

# Fedora
sudo dnf -y install wireguard-tools
```

### Generate the key pairs

```
sudo -i
cd /etc/wireguard
wg genkey | tee privatekey | wg pubkey > publickey
```

### Configure the WireGuard interface on Peer A

`/etc/wireguard/wg0.conf` :

```
cat << EOF > /etc/wireguard/wg0.conf
[Interface]
```

```
Address = 10.0.0.2/32
PrivateKey = XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
DNS = 8.8.8.8, 4.4.4.4

[Peer]
PublicKey = XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AllowedIPs = 0.0.0.0/0
Endpoint = the.wireguard.server:51820
EOF
```

## Up & Down the wg link

```
sudo wg-quick up wg0
sudo wg
sudo journalctl -fu wg-quick@wg0

sudo wg-quick down wg0
```

## nmcli

```
# Import the config file
CONF_FILE="wg0.conf"
nmcli connection import type wireguard file "$CONF_FILE"

# Show the profiles
nmcli
nmcli conn show # List all profiles
nmcli conn show <name> # Display the details for specified profile

# Delete the profile
nmcli connection delete wg0

# Modify the profile my-wg0
nmcli connection modify my-wg0 \
    autoconnect yes \
    ipv4.method manual \
    ipv4.addresses 192.168.7.5/24 \
    wireguard.listen-port 50000 \
    ...
```

```
# Active/Inactive the interface
nmcli connection up my-wg0
nmcli connection down my-wg0
```

## Algo VPN

- [Algo VPN](#) is a set of Ansible scripts that simplify the setup of a personal WireGuard and IPsec VPN.

## NetBird

- [NetBird](#) combines a configuration-free peer-to-peer private network and a centralized access control system in a single open-source platform
- [Video] [Netbird - an Open Source, Self Hosted Wireguard based VPN system. Server GUI and client setup ease](#)

## PiVPN

[PiVPN](#) is a lightweight, open-source project designed to simplify setting up a VPN server on a Raspberry Pi or any Debian-based system.

It supports WireGuard and OpenVPN, allowing you to create a secure, private tunnel to your home network or VPS.

- [Self-host Your Own VPN Using PiVPN](#)

## wg-easy

[wg-easy](#) is the easiest way to run WireGuard VPN + Web-based Admin UI.

- GitHub: <https://github.com/wg-easy/wg-easy>