

# VPN unter Linux

Wie ging das noch gleich mit diesen VPNs? Wie habe ich einen vpn gestartet?

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# Strongswan

Übernommen aus dem Wiki der HS-Mittweida

Strongswan

# Starte Konfigurierten Strongswan

Die Konfiguration muss bereits abgeschlossen sein! Ist das der fall, geht es ganz einfach.

## Start

```
sudo ipsec up <NAME>
```

Beispiel:

```
sudo ipsec up hsmw-vpn
```

## Stop

```
sudo ipsec down <NAME>
```

Beispiel:

```
sudo ipsec down hsmw-vpn
```

Strongswan

# Strongswan Konfiguration

TBD

# WireGuard

wie ging das noch gleich mit WireGuard?

# Starten von WireGuard Client

Es muss bereits eine fertige config existieren!

- <NAME> = name der .conf Datei unter `/etc/wireguard/`

## Start

```
sudo wg-quick up <NAME>
```

## Stop

```
sudo wg-quick down <NAME>
```

# WireGuard Gerät hinzufügen

## PiVPN

Ich gehe davon aus, dass du als Server PiVPN nutzt. Das nimmt dir sehr viel Sachen ab und funkt so weit.

## neuer Client

```
pivpn -a
```

Du wirst bequem durch das Setup geleitet. Danach fällt ein QR-Code und .conf File bei raus.

- Bist du mit Smartphone unterwegs:
  - nutze die WireGuard App und scanne den QR code
- am PC:
  - zieh dir das File z.B. mit SCP
  - kopiere es nach `/etc/wireguard`

# WireGuard

ich habe von irgendwo aus dem neuland mal nen script gefunden und es ein wenig angepasst, funktioniert soweit für mich:

```
#!/bin/bash

# This script creates a new "client peer" for a simple server-client WireGuard
# configuration by:
#
# 1. Using `wg` to generate a private and public key (without exposing the
#    former in a command invocation to generate the latter)
# 2. Creating client configuration files for both split-tunnel and
```

```

# full-tunnel configurations
# 3. Appending the new client to the peer list of the server configuration

# Run this command as the user who should have access to the client and server
# configuration files (i.e. probably root).


# SCRIPT CONFIGURATION

# directory storing all client and server configuration files
WG_DIR="/etc/wireguard/configs"

# VPN subnet (string-concatenated with IP_INDEX)
# this script only supports the equivalent of netmask /24 but could be
# modified to support others
IP_SUBNET="10.0.0"
IP_SUBNETv6="fd2d:64cb:1415:"

# location of the server configuration
SERVER_CONF="$WG_DIR/../wg0.conf"

# address and port of the WireGuard server
SERVER_ENDPOINT="vpn.hiajen.de:51820"

# server public key
SERVER_KEY_PUB=`cat $WG_DIR/../publickey`

### ### ### ### ### ### ###

if [ "$#" -ne 2 ]; then
    echo "Syntax: $0 CLIENT_NAME IP_INDEX"
    exit 1
fi

CLIENT_NAME="$1"
IP_INDEX="$2"

# specify the client configuration file names
CLIENT_PFX="$CLIENT_NAME"
CLIENT_CONF_SPLIT="$WG_DIR/${CLIENT_PFX}_split.conf"

```

```
CLIENT_CONF_FULL="$WG_DIR/${CLIENT_PFX}_full.conf"
```

```
# generate keys
```

```
# create a temporary file to store the private key so that it's not exposed in
```

```
# the command invocation to `wg pubkey`
```

```
CKEY_PRV_FILE=`mktemp -p "$WG_DIR"`
```

```
chmod 600 "$CKEY_PRV_FILE"
```

```
CKEY_PUB=`wg genkey | tee "$CKEY_PRV_FILE" | wg pubkey`
```

```
CKEY_PRV=`cat "$CKEY_PRV_FILE"`
```

```
rm -f "$CKEY_PRV_FILE"
```

```
CKEY_PSK=`wg genpsk`
```

```
# build the client configuration files
```

```
write_client_conf () {
```

```
cat << EOF > "$2"
```

```
[Interface]
```

```
Address = $IP_SUBNET.$IP_INDEX/24, $IP_SUBNETv6:$IP_INDEX/64
```

```
PrivateKey = $CKEY_PRV
```

```
DNS = $IP_SUBNET.1, $IP_SUBNETv6:1
```

```
[Peer]
```

```
# server
```

```
Endpoint = $SERVER_ENDPOINT
```

```
PublicKey = $SERVER_KEY_PUB
```

```
PresharedKey = $CKEY_PSK
```

```
AllowedIPs = $1, ::0/0
```

```
EOF
```

```
}
```

```
touch "$CLIENT_CONF_SPLIT" "$CLIENT_CONF_FULL"
```

```
chmod 600 "$CLIENT_CONF_SPLIT" "$CLIENT_CONF_FULL"
```

```
write_client_conf $IP_SUBNET.0/24 "$CLIENT_CONF_SPLIT"
```

```
write_client_conf 0.0.0.0/0 "$CLIENT_CONF_FULL"
```

```
# add the client peer to the server configuration
```

```
cat << EOF >> "$SERVER_CONF"
```

```
[Peer]
```

```
# $CLIENT_NAME
```

```
PublicKey = $CKEY_PUB
```

```
PresharedKey = $CKEY_PSK
```

```
AllowedIPs = $IP_SUBNET.$IP_INDEX/24, $IP_SUBNETv6:$IP_INDEX/64
```

```
EOF
```

```
echo "If you have qrencode installed, you can issue the following to configure"
```

```
echo "the client:"
```

```
echo "  qrencode -t ansiutf8 -r $CLIENT_CONF_SPLIT"
```

```
echo "  qrencode -t ansiutf8 -r $CLIENT_CONF_FULL"
```