

OpenVPN

Mit OpenVPN von Überall ins eigene/heimische Netz. Hier a Beispiel mit FLi4L als Router.

Quellen:

- <https://linuxconfig.org/how-to-setup-a-openvpn-server-on-ubuntu-20-04> - OpenVPN Server unter Ubuntu 20.04 aufsetzen
- <https://www.digitalocean.com/community/tutorials/how-to-set-up-an-openvpn-server-on-ubuntu-18-04-de> - OpenVPN Server unter Ubuntu 18.04 aufsetzen
- <https://ubuntu.com/server/docs/service-openvpn>
- <https://lists.spline.inf.fu-berlin.de/pipermail/fli4l/2017-April/006451.html>

Server

Zertifikate und Schlüssel für den Server erzeugen:

Vorbereitung:

```
sudo apt-get install easy-rsa
```

Arbeitsverzeichnis für die Erstellung der Schlüssel und Zertifikate erstellen:

```
make-cadir My_Certificate_Authority && cd My_Certificate_Authority
```

Parameter des Zertifikatsausstellers bearbeiten:

```
mcedit vars
...
set_var EASYRSA_REQ_COUNTRY "DE"
set_var EASYRSA_REQ_PROVINCE "NIEDERSACHSEN"
set_var EASYRSA_REQ_CITY "Hildesheim"
set_var EASYRSA_REQ_ORG "Familie von Thuelen"
set_var EASYRSA_REQ_EMAIL "Christoph@von-Thuelen.de"
set_var EASYRSA_REQ_OU "Familie"
...
#EOF
```

PKI Initialisieren (Unterverzeichnisse werden erstellt):

```
./easyrsa init-pki
```

„.rnd“-File generieren:

```
openssl rand -writerand ./pki/.rnd
```

CA Zertifikat erstellen:

```
./easysrsa build-ca nopass
# ohne "nopass" --> Password: ZFxxJYWCGj2QUhMQ
# mit "nopass" --> keine weitere Passwortabfrage
# ... Common Name (eg: your user, host, or server name) [Easy-RSA CA]:
<empty>
# --> pki/private/ca.key
# --> pki/ca.crt wird generiert
```

Server Schlüssel erstellen:

```
./easysrsa gen-req dsl-router nopass
# --> pki/reqs/dsl-router.req
# --> pki/private/dsl-router.key
```

Server Zertifikat erstellen:

```
./easysrsa sign-req server dsl-router
# --> pki/issued/dsl-router.crt
```

Diffie-Hellman Parameter erstellen:

```
./easysrsa gen-dh
# --> pki/dh.pem
cp pki/dh.pem /pki/dh2048.pem
```

TSL-Auth Schlüssel erstellen:

```
openvpn --genkey --secret ssl-auth.key
# --> ssl-auth.key
```

Client

Zertifikate und Schlüssel für den Client erzeugen:

```
make-cadir OpenVPN_Clients && cd OpenVPN_Clients
```

Client Schlüssel erstellen:

```
./easysrsa gen-req Christophs_Smartphone nopass
# --> pki/reqs/Christophs_Smartphone.req
# --> pki/private/Christophs_Smartphone.key
```

Client Zertifikat erstellen:

```
./easysrsa sign-req client Christophs_Smartphone
# --> pki/issued/Christophs_Smartphone.crt
```

OpenVPN Client Konfigurationsdatei „*.ovpn“ erstellen:

```
mkdir ../Christophs_Smartphone
cp pki/ca.crt ../Christophs_Smartphone/
cp pki/issued/Christophs_Smartphone.crt ../Christophs_Smartphone/
cp pki/private/Christophs_Smartphone.key ../Christophs_Smartphone/
cp ../template_client_config.ovpn
  ../Christophs_Smartphone/Christophs_Smartphone.ovpn
cp tsl-auth.key ../Christophs_Smartphone/
cd ..
./make_openvpn_client_config.sh Christophs_Smartphone
```

template_client_config.ovpn

```
client
dev tun
proto udp
remote <FQDN if OpenVPN-Server> <port>
resolv-retry infinite
nobind
persist-key
persist-tun
key-direction 1
remote-cert-tls server
cipher AES-256-CBC
data-ciphers AES-256-CBC
verb 3
```

make_openvpn_client_config.sh

```
#!/bin/bash

# First argument: Client identifier
CONFIG_NAME=$1
BASE_CONFIG=template_client_config.ovpn
OUTPUT=$CONFIG_NAME.ovpn

if [ -z "$CONFIG_NAME" ]; then
    echo "\$CONFIG_NAME is empty"
    echo "Please specify client config name. --> exit!"
    exit 1
else
    echo "Make OpenVPN client config for: $CONFIG_NAME"
fi

if [ -d $CONFIG_NAME ]; then
    echo "Generating $OUTPUT"
    cat ${BASE_CONFIG} \
        <(echo -e '<ca>') \
        $CONFIG_NAME/ca.crt \
        <(echo -e '</ca>\n<cert>') \
```

```
$CONFIG_NAME/$CONFIG_NAME.crt \
<(echo -e '</cert>\n<key>') \
$CONFIG_NAME/$CONFIG_NAME.key \
<(echo -e '</key>\n<tls-auth>') \
$CONFIG_NAME/tls-auth.key \
<(echo -e '</tls-auth>') \
> $CONFIG_NAME/$CONFIG_NAME.ovpn
else
echo "ERROR: Folder for $CONFIG_NAME not found --> exit!"
fi
```

From:

<http://xn--von-thlen-v9a.de/> - Christophs DokuWiki

Permanent link:

<http://xn--von-thlen-v9a.de/doku.php/wiki/linux/openvpn>

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