

# OpenVPN

Follow one of the excellent guides from DigitalOcean (see [Links](#) below). Follow all the steps to the detail and everything will work, below are modifications I made for my personal requirements. Make sure you run commands as regular user and only elevate to root when told to do so.

## Prerequisites

1. Make sure you followed [Initial Server Setup with Debian 9](#) before you setup the VPN Server
2. Establish a non-root administrative user with sudo privileges
3. Install [UFW Firewall](#) and make sure the correct interface is set up in `/etc/ufw/before.rules`
4. I separated the Certificate Authority Server (CA Server) and the VPN Server as recommended in the walk-through. I use 2 different VPN Servers in 2 locations with the same credentials, the CA Server is located on a virtual machine and switched off when not used. (bco: [OpenVPN](#))
5. Install [EasyRSA](#)

## Migrating server

If you reinstall OpenVPN on a new machine with existing client configurations do the following:

1. Copy `/etc/openvpn/` from the old server and copy to the new server
2. Follow [Adjusting the Server Networking Configuration](#) (steps 5 and 6)
3. Check the VPN is running with

```
sudo systemctl status openvpn@server
```

## Adding Clients

Setting up the environment (VPN Server(s) and CA Server) takes a while, the many steps are outlined clearly and in detail in the Original Article below in [my Wiki](#) or on the [DigitalOcean](#) website. In this paragraph I summarized the steps necessary to add clients to the VPN. Since both VPN Servers use the same credentials, the process is identical apart from using a different `base.conf` file which contains the server's IP address.

### VPN Server

- Navigate to the EasyRSA directory on your VPN Server and run the `easyrsa` script with the `gen-req` and `nopass` options, along with the common name for the client:

```
$ cd ~/EasyRSA-3.0.4/  
$ ./easyrsa gen-req client1 nopass
```

- Press ENTER to confirm the common name. Then, copy the `client1.key` file to `~/client-`

configs/keys/:

```
$ cp ~/EasyRSA-3.0.4/pki/private/client1.key ~/client-configs/keys/
```

## CA Server

- Log in to your *CA Server* and copy the *client1.req* file from the *VPN Server*:

```
$ rsync -avz -e "ssh -p <port>"  
user@vpn.server.com:EasyRSA-3.0.4/pki/reqs/client1.req  
~/EasyRSA-3.0.4/pki/reqs/.
```

- Navigate to the *EasyRSA* directory and sign the request, be sure to specify the client request type:

```
$ ./easysrsa sign-req client client1
```

At the prompt, enter **yes** to confirm that you intend to sign the certificate request and that it came from a trusted source. This will create a client certificate file named *client1.crt*.

- Copy the signed *client1.crt* file back to the *VPN Server*:

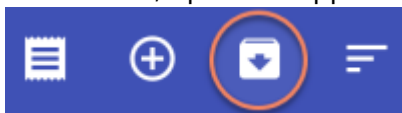
```
$ rsync -avz -e "ssh -p <port>" ~/EasyRSA-3.0.4/pki/issued/client1.crt  
user@vpn.server.com:client-configs/keys/
```

## VPN Server

- Log in to your *VPN Server* then navigate to *~/client-configs* and run the 'make config' script:

```
$ cd ~/client-configs  
$ sudo ./make_config.sh client1
```

- This will create a file named *client1.ovpn* in your *~/client-configs/files* directory. Transfer this file to the device you plan to use as the client.
- Install the *OpenVPN Client* for [Windows](#), [Android](#), or other platforms.
- On Android, open the app and select the import icon top right to import the config file.



You should now be able to open the VPN by selecting the profile created from the config file imported.

## Links

- [How To Set Up an OpenVPN Server on Debian 11](#)
- [How To Set Up an OpenVPN Server on Debian 10](#)
- [How To Set Up an OpenVPN Server on Debian 9](#)

- [Easy-RSA 3](#)
- [Github Easy-RSA](#)
- [OpenVPN HowTo](#)
- [Problem connecting to local resources from a laptop](#)

From:

<https://wiki.condrau.com/> - **Bernard's Wiki**

Permanent link:

<https://wiki.condrau.com/deb9:openvpn?rev=1758528508>

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