

How to use OpenVPN to access your home network through Routers (new logo)?

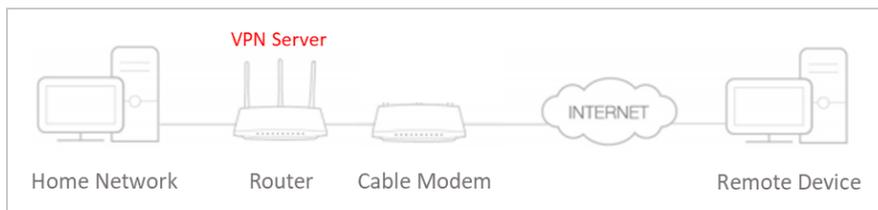
Configuration Guide

Update

This Article Applies to: 

In the OpenVPN connection, the home network can act as a server, and the remote device can access the server through the router which acts as VPN feature, you should enable OpenVPN Server on your router, and install and run VPN client software on the remote device. Please follow the steps below.

Case 1: Only one router in the home network map

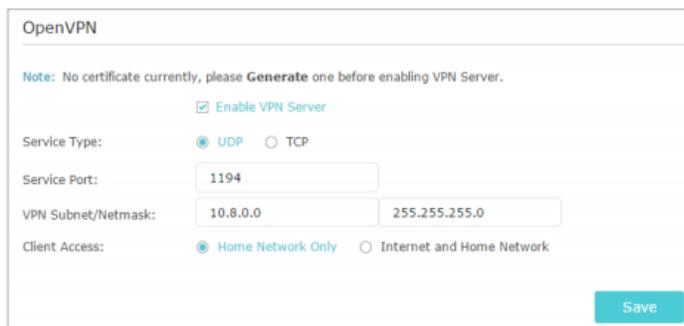


Step1. Set up OpenVPN Server on Your Router

1. Log in to the web-based interface of the router. If you don't know how to do that, please refer to

[How do I log into the web-based Utility \(Management Page\) of TP-Link wireless router?](#)

2. Go to **Advanced > VPN Server > OpenVPN**, and select **Enable VPN Server**.



The screenshot shows the 'OpenVPN' configuration page. At the top, there is a note: 'Note: No certificate currently, please **Generate** one before enabling VPN Server.' Below the note, there is a checkbox labeled 'Enable VPN Server' which is checked. Under 'Service Type', there are two radio buttons: 'UDP' (selected) and 'TCP'. The 'Service Port' field contains the value '1194'. The 'VPN Subnet/Netmask' field is split into two parts: '10.8.0.0' and '255.255.255.0'. Under 'Client Access', there are two radio buttons: 'Home Network Only' (selected) and 'Internet and Home Network'. A 'Save' button is located at the bottom right of the form.

Note:

- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for the router with the internet.
- For the CG-NAT ISP: **Comporium** and **Direct link - radio service**, provide the customer a private IP, that will cause you can't use the OpenVPN the ISP and ask them to offer a Static IP address.
- The first time you configure the OpenVPN Server, you may need to **Generate** a certificate before you enable the VPN Server.

3. Select the **Service Type** (communication protocol) for OpenVPN Server: UDP, TCP.

4. Enter a **VPN Service Port** to which a VPN device connects, and the port number should be between 1024 and 65535.

5. In the **VPN Subnet/Netmask** fields, enter the range of IP addresses that can be leased to the device by the OpenVPN server.

6. Select your **Client Access** type. Select **Home Network Only** if you only want the remote device to access your home network; select **Internet a** remote device to access internet through the VPN Server.

7. Click **Save**.

8. Click **Generate** to get a new certificate.

Certificate

Generate the certificate.

Generate

Note:

If you have already generated one, please skip this step, or click **Generate** to update the certificate.

9. Click **Export** to save the OpenVPN configuration file which will be used by the remote device to access your router.

Configuration File

Export the configuration.

Export

Step 2. Configure OpenVPN Connection on Your Remote Device

1. Visit <http://openvpn.net/index.php/download/community-downloads.html> to download the OpenVPN software, and install it on your device when

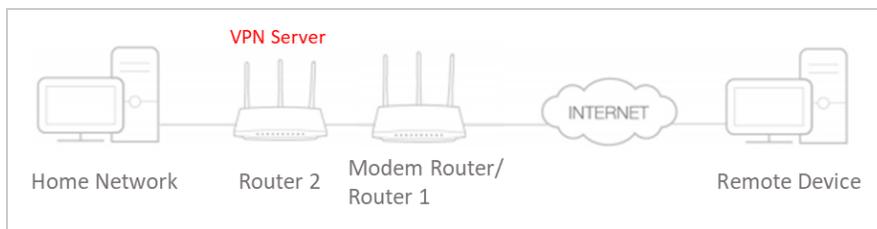
Note:

You need to install the **OpenVPN** client utility on each device that you plan to apply the VPN function to access your router. Mobile devices should or Apple App Store.

2. After the installation, copy the file exported from your router to the OpenVPN client utility's "config" folder (for example, **C:\Program Files\Open** on where the OpenVPN client utility is installed).

3. Run the OpenVPN client utility and connect it to OpenVPN Server.

Case 2: Two or more routers in the home network map



Step1. Set up OpenVPN Server on Your Router

1. Log in to the web-based interface of the router. If you don't know how to do that, please refer to

a. [How to log in to the web-based interface of Wi-Fi Routers.\(new logo\)?](#)

b. [How to log in to the web-based interface of Wi-Fi Routers.\(new logo\)?](#)

2. Go to **Advanced > VPN Server > OpenVPN**, and select **Enable VPN Server**.

OpenVPN

Note: No certificate currently, please **Generate** one before enabling VPN Server.

Enable VPN Server

Service Type: UDP TCP

Service Port:

VPN Subnet/Netmask:

Client Access: Home Network Only Internet and Home Network

Note:

- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN with internet.

- The first time you configure the OpenVPN Server, you may need to **Generate** a certificate before you enable the VPN Server.

3. Select the **Service Type** (communication protocol) for OpenVPN Server: UDP, TCP.

4. Enter a **VPN Service Port** to which a VPN device connects, and the port number should be between 1024 and 65535. Please **write down** the Se

5. In the **VPN Subnet/Netmask** fields, enter the range of IP addresses that can be leased to the device by the OpenVPN server.

6. Select your **Client Access** type. Select **Home Network Only** if you only want the remote device to access your home network; select **Internet a** remote device to access internet through the VPN Server.

7. Click **Save**.

8. Click **Generate** to get a new certificate.

Certificate

Generate the certificate.

Note:

If you have already generated one, please skip this step, or click **Generate** to update the certificate.

9. Click **Export** to save the OpenVPN configuration file which will be used by the remote device to access your router.

Configuration File

Export the configuration.

10. Set up **Virtual Server/Port Forwarding** for Router 2 on Modem Router/Router 1, please refer to

[Port forwarding: how to set up virtual server on TP-Link Wi-Fi Routers \(tp-link.com\)](http://tp-link.com)

Note:

1. Please make sure the Internal Port is the same as the VPN Service Port you wrote down before.

2. Enter and write down the **External Port**.

11. Go to the **Management Interface of the Modem Router/Router1**, and write down the **WAN IP address**.

12. Right-Click the OpenVPN configuration file, open it with the **Notepad**.

Please modify following two characters:

1. Modify the **remote address** to the **WAN IP address of the Modem Router/Router1** you wrote down in Step 11.

2. Modify the **Port number** to **External Port** you set for the Router2 in Step 10.

OpenVPN-Config.ovpn - Notepad

File Edit Format View Help

```
client
dev tun
proto tcp
float
nobind
cipher AES-128-CBC
comp-lzo adaptive
resolv-retry infinite
remote-cert-tls server
persist-key
persist-tun
remote 192.168.0.10 1194
<ca>
-----BEGIN CERTIFICATE-----
MIIDdjCCAt+gAwIBAgIJAM5sBirXVhHQMA0GCSqGSIb3DQEBCwUAMIGAMQswCQYD
VQQGEwJDTjELMAkGA1UECAwCR0QxETAPBgNVBACMCFNoZW5aaGVuMRAwDgYDVQQK
DAdUUC1MaW5rMRIwEAYDVQQLEDA1TT0hPLUkxOE4xETAPBgNVBAMMCENoYW5nZU11
MRgwFgYJKoZIhvcNAQkBFg14eHh4QHh4eHgwHhcNMjEwMzEyMDk0NTEzWhcNMzEw
MzEwMDk0NTEzWjCBgDELMAkGA1UEBhMCQ04xCzAJBgNVBAGMAkdEMREwDwYDVQQH
DAhTaGVuUWh1bjEQA4GA1UECgwHVFAAtTG1uazESMBAGA1UECwwJU09ITy1JMTh0
```

13. **Save** the OpenVPN configuration file.

Step 2. Configure OpenVPN Connection on Your Remote Device

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Note:

You need to install the **OpenVPN** client utility on each device that you plan to apply the VPN function to access your router. Mobile devices should or Apple App Store.

2. After the installation, copy the file exported from your router to the OpenVPN client utility's "config" folder (for example, **C:\Program Files\OpenVPN**) where the OpenVPN client utility is installed.

3. Run the OpenVPN client utility and connect it to OpenVPN Server.

Get to know more details of each function and configuration please go to [Download Center](#) to download the manual of your product.

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