

Raspberry_Pi_VPN_Articles

What is a VPN?

A VPN, or Virtual Private Network, is a technology that allows a user to establish a secure and encrypted connection over the internet to another network, often in a different location.

Many people use VPNs to protect their online privacy. When you connect to the internet via a VPN, it's as if you're using a private tunnel. This tunnel shields your data from prying eyes, making it harder for hackers or even your Internet Service Provider (ISP) to see what you're doing online.

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It's a free PDF guide containing every Raspberry Pi Linux command you should know!

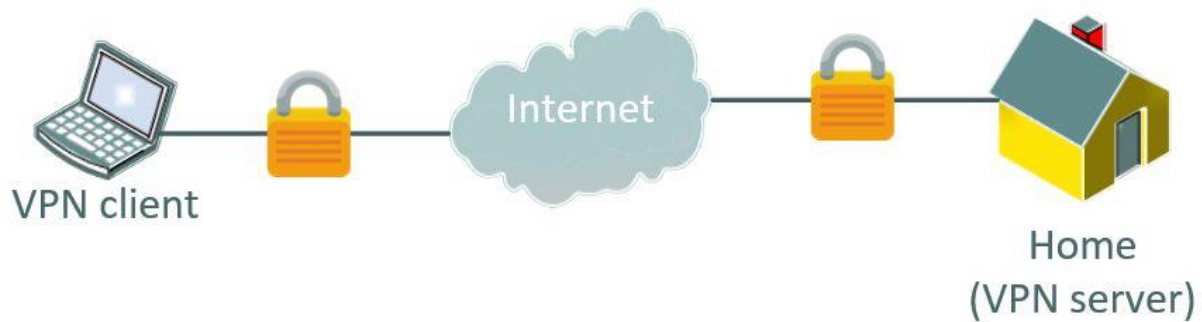
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Imagine you're in a coffee shop using their public Wi-Fi. Without a VPN, anyone tech-savvy enough in that café could potentially see the websites you visit. But with a VPN, your online actions remain hidden.

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On a Raspberry Pi or Linux system, users often set up VPNs for secure remote access or to safely browse the web. With the right software, your Raspberry Pi could even act as a VPN server, granting you secure access to your home network from anywhere in the world!

Related articles:

- [How To Install NordVPN On Ubuntu \(Beginner's Guide\)](#)
- [Best VPN Providers on Raspberry Pi \(I Tested All\)](#)
- [The Easiest Way to Install OpenVPN Server on Raspberry Pi](#)
- [Raspberry Pi: OpenVPN vs WireGuard, which one is the best?](#)

Best VPN Providers on Raspberry Pi (I Tested All)

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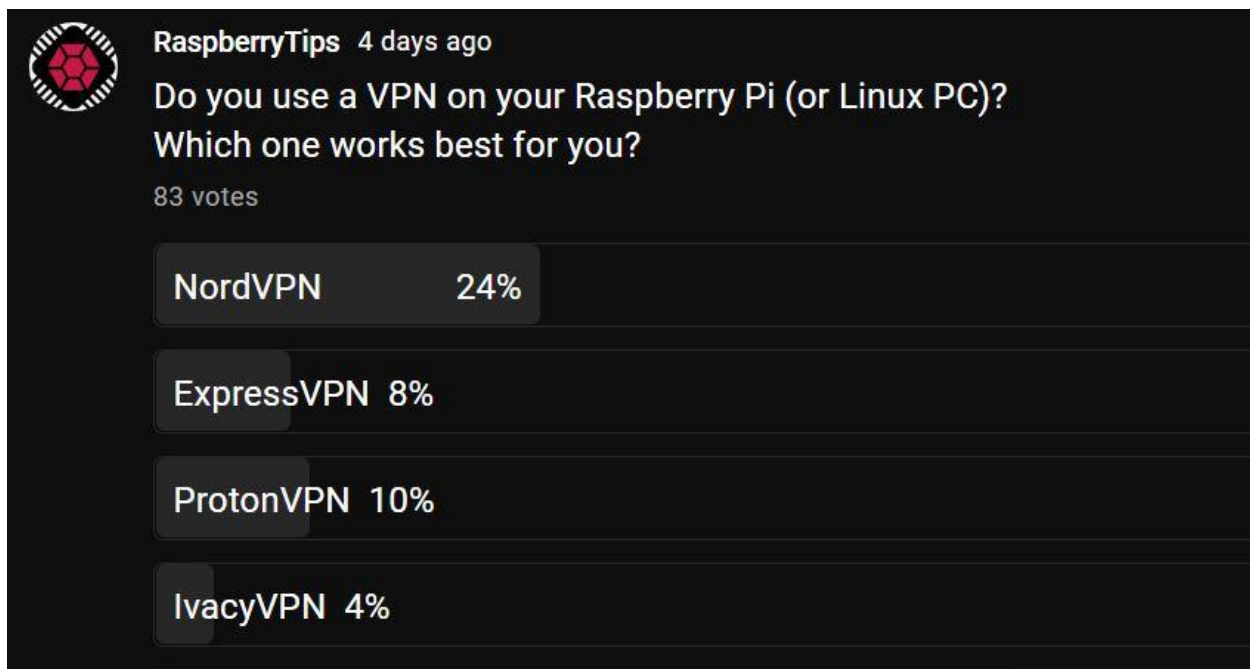
- Choosing a [VPN](#) provider on a standard PC is already a mess, nothing looks more like another one from the outside. Most websites recommend the one that gives them the biggest commission. If you add using Linux to this cocktail, picking a decent provider is like the lottery.

This week, I tested all the most popular VPN providers on my Raspberry Pi, to see how they work, and I can now share my honest recommendations with you.

I took the premium offer from each provider, followed their documentation to install it onto a Raspberry Pi OS with Desktop and tested what they have to offer (overall speed, application, servers available, original features, etc.).

This list is ranked in order from most favorite to least favorite, with the one I don't recommend in last place.

By the way, I also asked for advice in the community tab on the YouTube channel, here are the answers you gave me:



Top 3 VPN providers on Raspberry Pi

- [NordVPN](#) – Best overall. Fastest speed and easy to use.
- [ProtonVPN](#) – Good experience, with a free (and limited) version available.
- [IvacyVPN](#) – Solid solution, it's the one I use, it works well.

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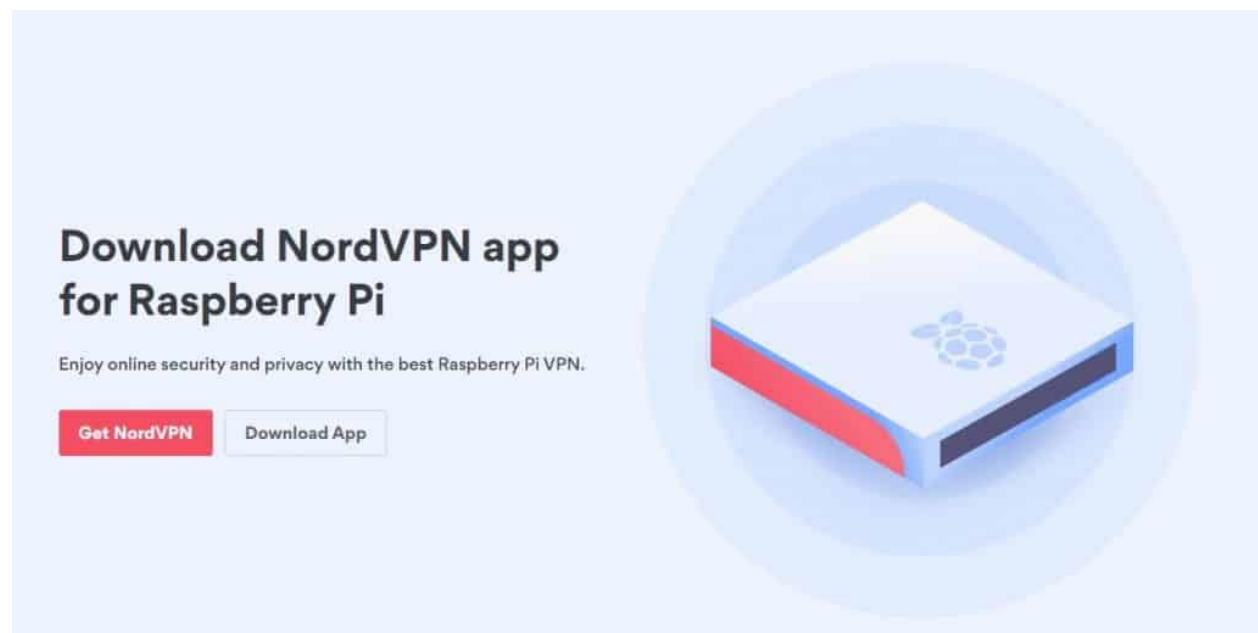
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What are the best VPN providers for a Raspberry Pi?

NordVPN



[NordVPN](#) is probably one of the most popular providers for the average user. It is one of the biggest companies in this list with over 5000 servers around the world. Its website is clean with documentation available for almost every support. I even found a page about Raspberry Pi (it redirected me to the Linux documentation, but it's good to see).



You'll see "Download App" buttons everywhere, but there isn't an app for Linux users (even on a PC with Ubuntu it's not available). As they say:

No graphic distractions, only the power of your commands.

NordVPN

Well, we don't really need an app, right? Aside from this, the installation is pretty straightforward and well-explained. There is a .deb file to download and install. It will add a new

[repository](#) on your system. After that, you can install the “nordvpn” package. [I have an entire tutorial about NordVPN on the website](#), you can check it if you want more detail.

Once installed, you can use these commands in a terminal to change your status:

```
nordvpn login  
nordvpn connect [country]  
nordvpn disconnect
```



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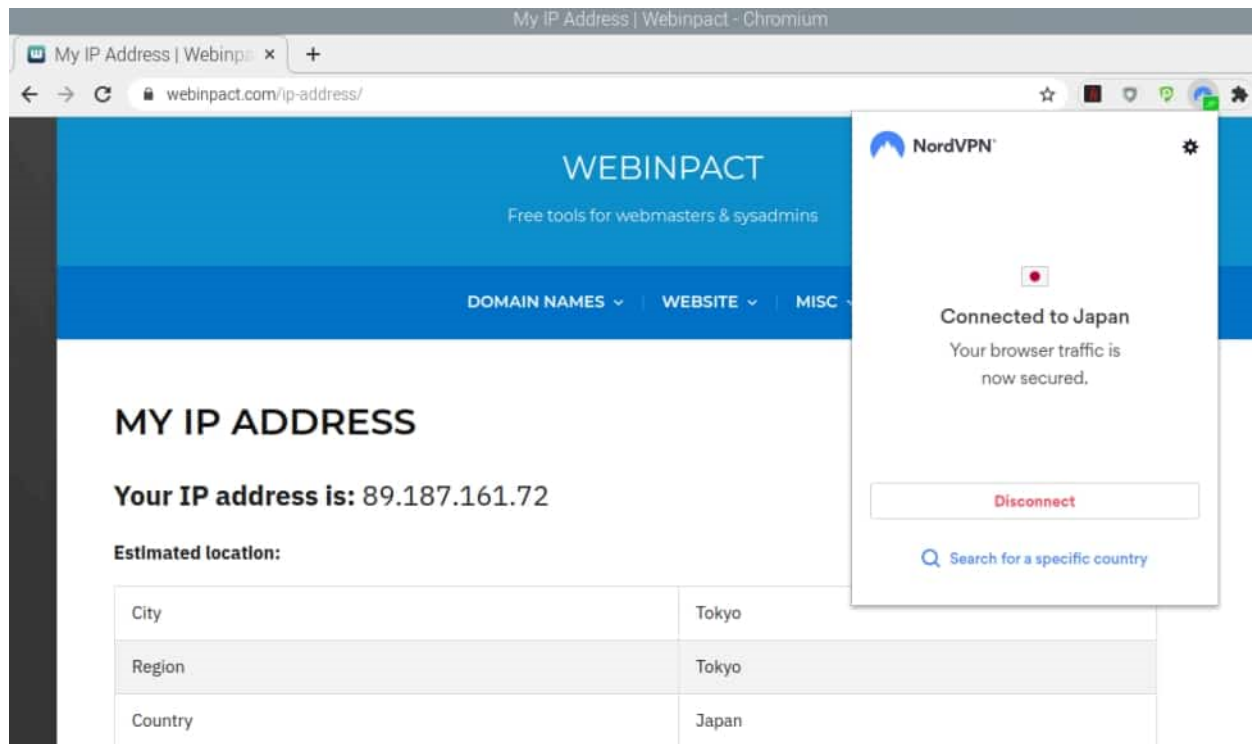
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Note: There is also a Chrome extension that works fine on Chromium if you only use it for web browsing.

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If you are lost in all these new words and abbreviations, request my free Raspberry Pi glossary [here](#) (PDF format)!

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I used my other website to [find my IP address and location](#), to check that everything work, but you can use any website.

Pros & cons

Pros

Easy to setup

Easy to use

Fastest provider in my results

Chat support available 24/7

Almost 6000 servers over the world at the time of writing

Pros & cons of using NordVPN on Raspberry Pi

Cons

No application available for Linux users
(there is one on Windows)

No adblocker feature like other solutions

In a nutshell

My IP Address | WebinPact - Chromium

Free tools for webmasters & sysadmins

DOMAIN NAMES WEBSITE MISC

MY IP ADDRESS

Your IP address is: 185.180.12.246

Estimated location:

City	Region	Country
Vienna	Vienna	Austria

Speedtest by Ookla - The Global Broadband Speed Test - Chromium

Result ID: 11950023258

PING ms: 241

DOWNLOAD Mbps: 38.43

UPLOAD Mbps: 21.39

pi@raspberrypi ~

```
File Edit Tabs Help
pi@raspberrypi:~$ nordvpn login
Please enter your login details:
Email: contact@raspberrypis.com
Password: *****
Welcome to NordVPN! You can now connect to VPN by using 'nordvpn connect'.
pi@raspberrypi:~$ nordvpn connect Vietnam
Connecting to Vietnam #24 (vn24.nordvpn.com)
You are connected to Vietnam #24 (vn24.nordvpn.com)!
pi@raspberrypi:~$ nordvpn disconnect
You are disconnected from NordVPN.
How would you rate your connection quality on a scale from 1 (poor) to 5 (excellent)? Type 'nordvpn rate' [1-5]:
pi@raspberrypi:~$ nordvpn connect Austria
Connecting to Austria #118 (at118.nordvpn.com)
You are connected to Austria #118 (at118.nordvpn.com)!
pi@raspberrypi:~$
```

- **Speed test result:** 65.4 Mbps (Download) and 22.8 Mbps (Upload)
- **Ping:** 45 ms
- **Pricing:** Good (as they often offer discount, [check the current price here](#))
- **Support:** Tested on a Sunday morning, I got an immediate response in the chat box.
- **Servers:** They list 5268 servers in 60 countries (one of the biggest network).

[Visit the NordVPN website for more details.](#)

ProtonVPN



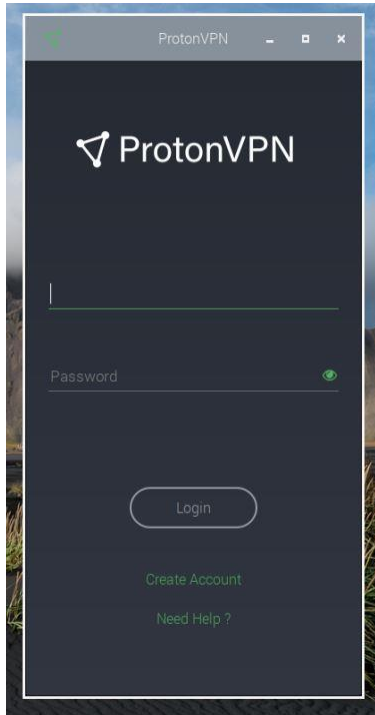
I know that [ProtonVPN](#) (and ProtonMail) has a strong reputation in the Linux world, and I have been impressed with their offers in the VPN space. They are the only ones on the list to offer free access to their services (it's limited, but it's better than nothing). They are not first because I was a bit disappointed by a few things, but it's still a great option.

I first tried the free version. The good news is that there is an app available on Linux, and it kind of worked on Raspberry Pi OS (it's the only provider having one for us).

With the free version, you have access to a limited number of servers (about ten), and most of them are already overloaded. One of them was at a 70% load and worked on Windows, but I didn't manage to connect from the Raspberry Pi.

Then I tried using OpenVPN client instead of the app, and it worked better. I expected the app to not work correctly on Linux or Raspberry Pi OS at least. But then I switched to a Pro version, and everything worked.

So, basically, if you stay on the free offer, you can't use the app, but it works with OpenVPN. With a premium subscription, you can use both. Good to know.



Installation

If you have a premium subscription, you can follow their tutorial for Debian, and it should work easily. You can even enable a tray icon to check the current statuses in a glance.

To install ProtonVPN, if you use the free version, you can go into your account, click on Downloads > OpenVPN configuration files and get the configuration for one of the free servers (check their status and pick the less loaded).

Then you can [install OpenVPN on your Raspberry Pi](#) and connect to this server with the command:

```
sudo openvpn --config <configuration-file>
```

There is a way to do the same with the [GUI](#), I will give you a link to the Ivacy website in the next section.

You can find my [step-by-step installation tutorial for ProtonVPN on Raspberry Pi](#) by clicking on this link. I give more details about the procedure, and the issues you might have with it.

Pros & cons of ProtonVPN

Pros

Only provider with an app working on Raspberry Pi OS (for premium users only)

Works fine with OpenVPN in any case

Free version available (for testing or occasional use)

Built-in adblocker

Decent connection speed

Pros & cons of using ProtonVPN on Raspberry Pi

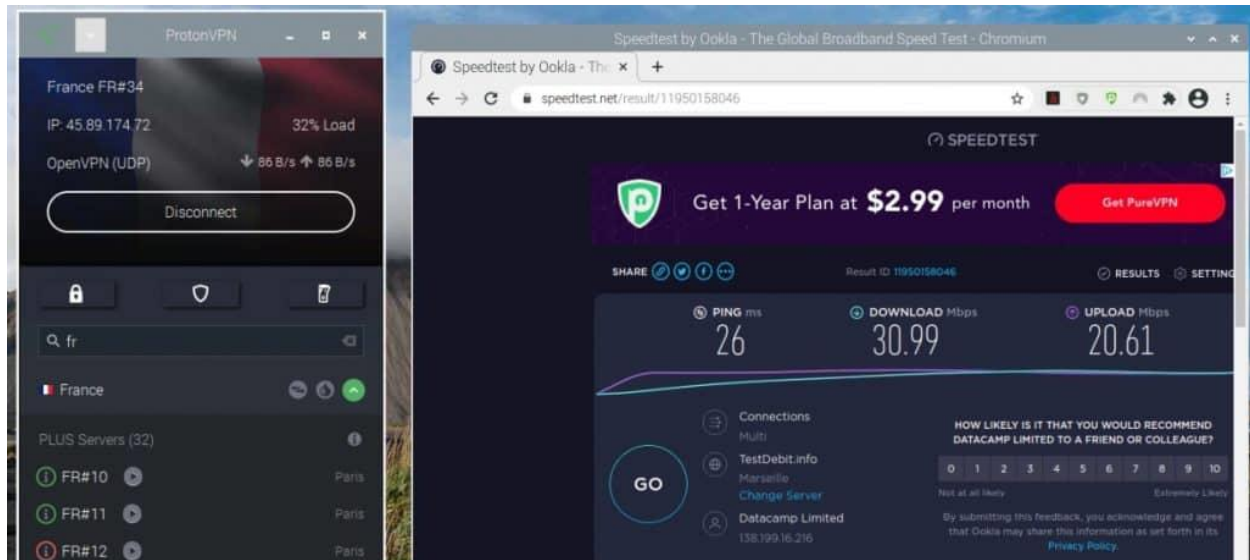
Cons

Limited for free users: no app, overloaded servers, high ping

Servers are generally a bit loaded, even for pro users

Support: ticket only, 28 hours to get a response.

In a nutshell



- **Speed test result:** 33.8 Mbps (Download) and 22 Mbps (Upload)
- **Ping:** 13 ms (the best I got in this benchmark)
- **Pricing:** Excellent (free, \$4, \$8 or \$24). I tested the “Plus” subscription (\$8). All tiers increase the VPN speed and number of servers available.
- **Support:** The only provider that doesn’t offer a live chat. I didn’t get a response in the first 24 hours.
- **Servers:** They list only 1326 servers in 55 countries (a bit small I think, as many servers are overloaded, even for pro members).

[Visit the ProtonVPN website for more details.](#)

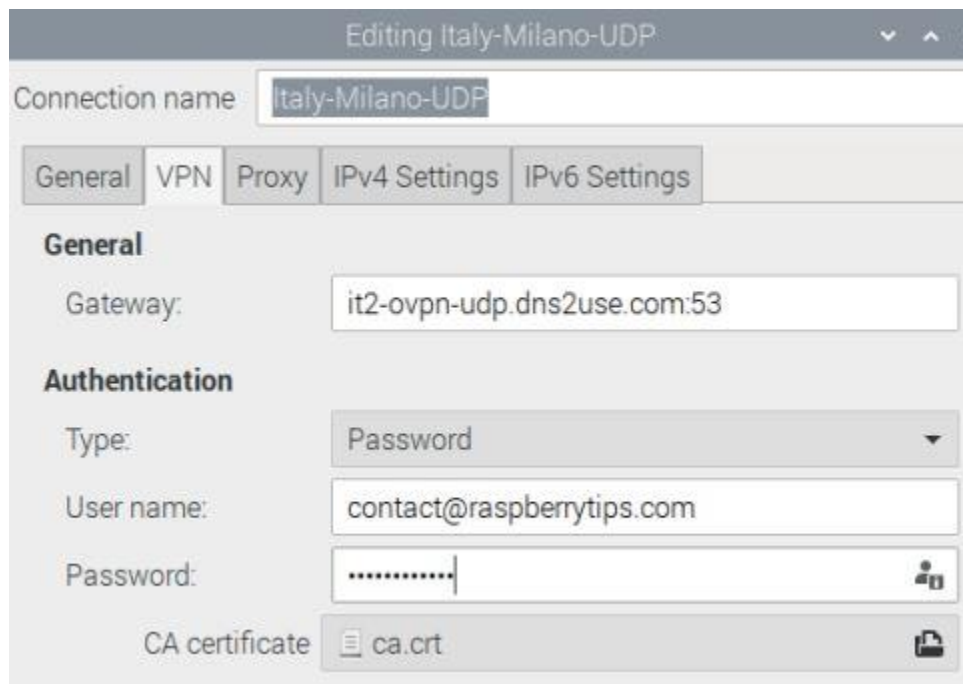
IvacyVPN



Last year, I got a lifetime deal for [IvacyVPN](#), so it's a solution I regularly use on my PC and it's now a provider I know well. The software suite is not the best at all (even on Windows it's difficult), so I was curious to see how it works on Linux and especially on Raspberry Pi.

Installation

On the website, they recommend using PPTP to configure the VPN on Debian. I'm not certain if it's the best recommendation they can give. I found the [OpenVPN files here](#), so I followed the same procedure (mentioned above) to use the configuration file for a server I want to connect to.

A screenshot of the IvacyVPN configuration window titled 'Editing Italy-Milano-UDP'. The window has a tabbed interface with 'General', 'VPN', 'Proxy', 'IPv4 Settings', and 'IPv6 Settings'. The 'General' tab is active. It contains fields for 'Gateway' (it2-ovpn-udp.dns2use.com:53), 'Authentication' (Type: Password, User name: contact@raspberrytips.com, Password: masked), and 'CA certificate' (ca.crt).

You can also follow [this tutorial](#) on their website to install the packages. It's for Kali Linux, but it should be similar on Raspberry Pi OS. In short, there are a few packages to install, and after a

reboot a new icon will appear in the top right of your screen. This is where you can manage the VPN connections. In this tool, you can also import an OpenVPN configuration file.

I have tried this with several providers in this list and it's the easiest route as most providers do not offer an app for us.

Pros & cons

Pros

An add-on is available for Kodi No app available

Chrome extension available
(works with Chromium)

Good connection speed

1-day free trial

Pros & cons of Ivacy VPN on Raspberry Pi

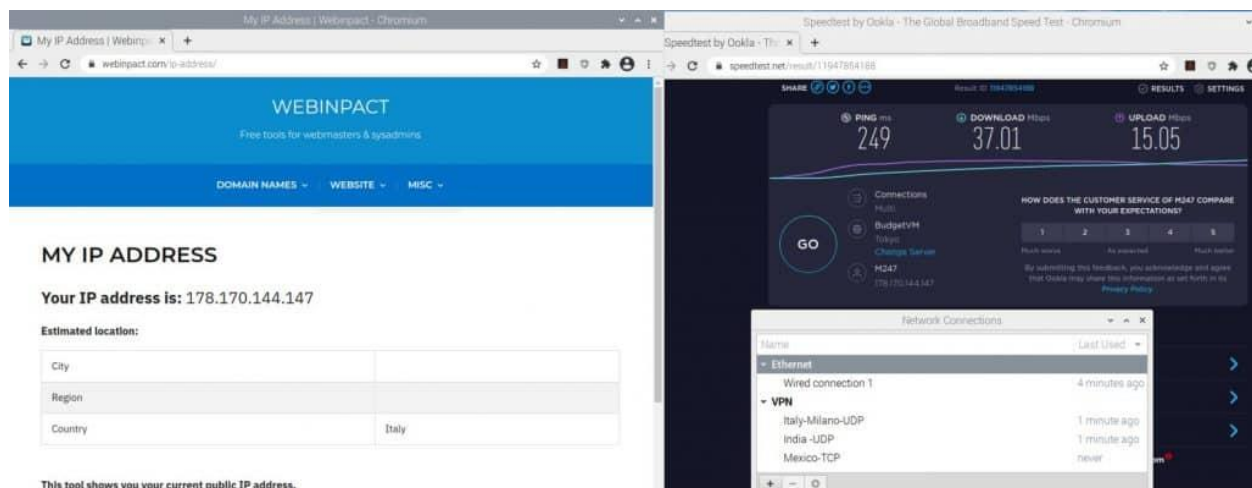
Cons

Some servers do not work

(you just have to try several of them to find one...)

No advanced features (Adblocker or other)

In a nutshell



- **Speed test result:** 52.9 Mbps (Download) and 16.7 Mbps (Upload) – Just behind NordVPN in this list (2nd)
- **Ping:** 28 ms (Good)
- **Pricing:** Excellent (as they often offer promotions, it's best to [check the current price here](#)). They are the cheapest option (at the time of writing).
- **Support:** Tested on a Sunday morning and received a response in less than two minutes. Not the answer I would have expected (try another server if it doesn't work), but I'm not judging this, as I didn't ask the same question to each provider.
- **Servers:** They list 3500 servers in 50 countries (not bad at all).

[Visit the Ivacy VPN website for more details.](#)

ExpressVPN



At work, I have used [Express VPN](#) for years, and it's a reliable company. I feel it's a solution that target professionals rather than individuals (maybe I'm wrong). The website is cleaner, they don't seem to offer as much of a discount as the competitors on this list, their pricing is a bit higher, etc.

Download the Pi Glossary!

If you are lost in all these new words and abbreviations, request my free Raspberry Pi glossary here (PDF format)!

[Download now](#)

Anyway, if you prefer a stable and reliable company rather than the biggest or fastest one, it may be a good fit for you.

Installation

Like the other providers, Express VPS does not have an app for Linux users. But the good news is that there is a package you can install. It's similar to what I explained with NordVPN in a way.

ExpressVPN for Linux

for Ubuntu, Debian, Fedora, Arch, Raspberry Pi, and Linux Mint

Email yourself a link to this page to make it
easy to set up the app on any device.

Email Setup Link

Raspbian 32-bit



Download

There is even a package available for Raspbian, which is nice to see :-).

Download and install the .deb file on your system, then you can use these commands to control the VPN connection:

```
expressvpn activate #type your license code
expressvpn connect [server] #for a specific server
expressvpn connect smart #for the best server available
expressvpn list #to see the servers list
```

You can find [more details here](#) about these commands.

And I have a entire article dedicated to [ExpressVPN on Raspberry Pi](#) that you can check for all the steps once you have your account.

***Note:** There is a Chrome extension available, but I didn't manage to install it on Chromium. It may be a bug on my side, but the support told me it only works on Chrome not Chromium, so...*

Pros & cons

Pros

Easy to install, a package is available for RPI OS
(command-line only)
Decent connection speed
Activate the app once and it's done forever
Autoconnect function
(will connect to the best server automatically on boot)
Pros & cons of ExpressVPN on Raspberry Pi

Cons

No graphic interface
No ad-blocker
Chrome extension doesn't work
Pricing

In a nutshell

- **Speed test result:** 34.9 Mbps (Download) and 18.3 Mbps (Upload) – It's good enough
- **Ping:** 23 ms
- **Pricing:** A bit expensive compared to the competition ([check the current price here](#))
- **Support:** Tested a Sunday in the morning, I got a response instantly with the live chat
- **Servers:** They list 160 servers in 94 countries (the smallest network).

[Visit the ExpressVPN website for more details.](#)

PureVPN

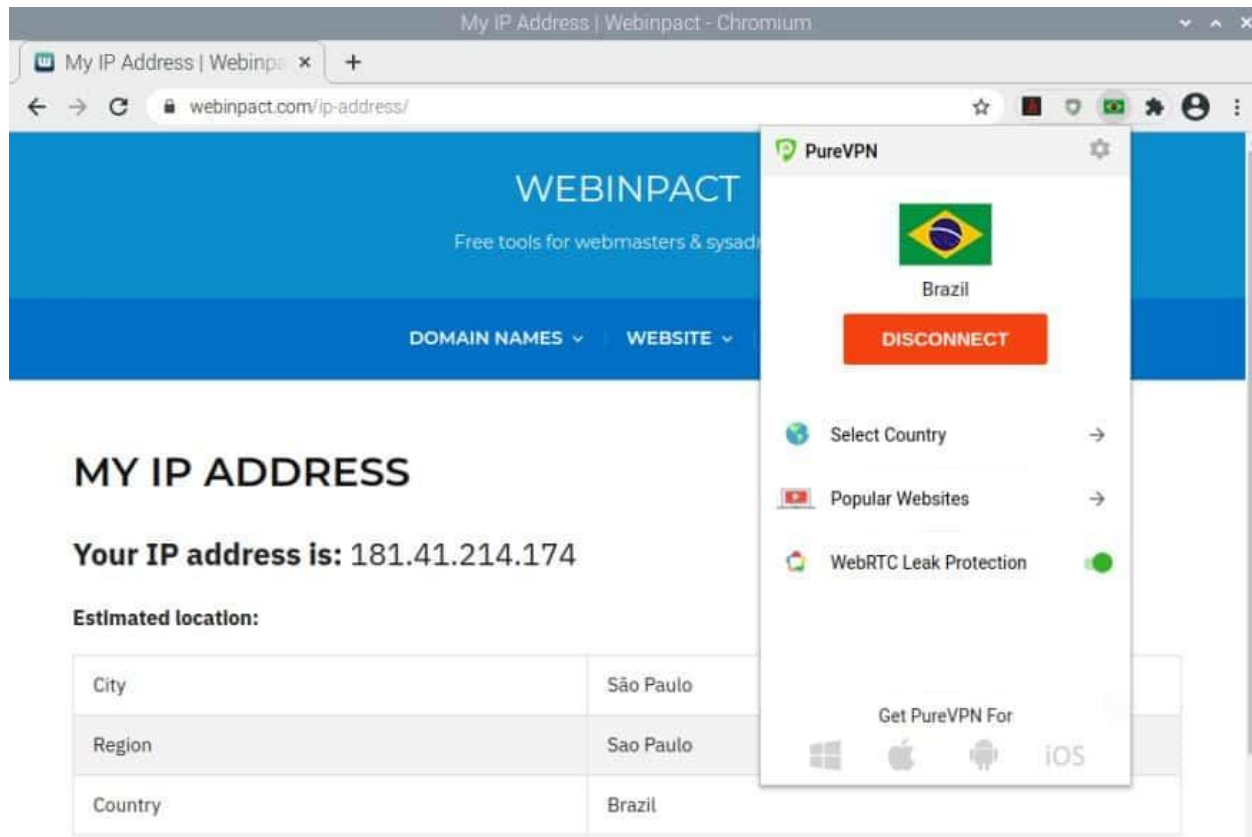


This one gave me some headaches, which explains why I rank it last. In the end, it might be my fault, as I didn't find the updated documentation before asking the support, but I have found enough issues with them to not recommend it (at least not before the other in this list).

Installation

As a whole, [the PureVPN website](#) is a mess. They explain how to use OpenVPN and PPTP, but the documentation is unclear, with some errors in almost every command line. It's easy to fix if you have a decent level, but good luck for beginners. At the end, nothing worked. I got some disturbing errors in the log file (like their certificate was too weak! Not good for a VPN company!).

Anyway, after asking their support, they gave me a link to updated documentation, with a download link to get the new certificates and configuration files. I finally managed to install it with OpenVPN, as for the other providers. Here is the [link to the documentation](#).



Their Chrome extension works fine on Chromium / RPI OS

Pros & cons

Pros

Chrome extension

7-day free trial

Biggest server network according to their website

Decent connection (with better upload than download?)

Pros & cons of using PureVPN on Raspberry Pi

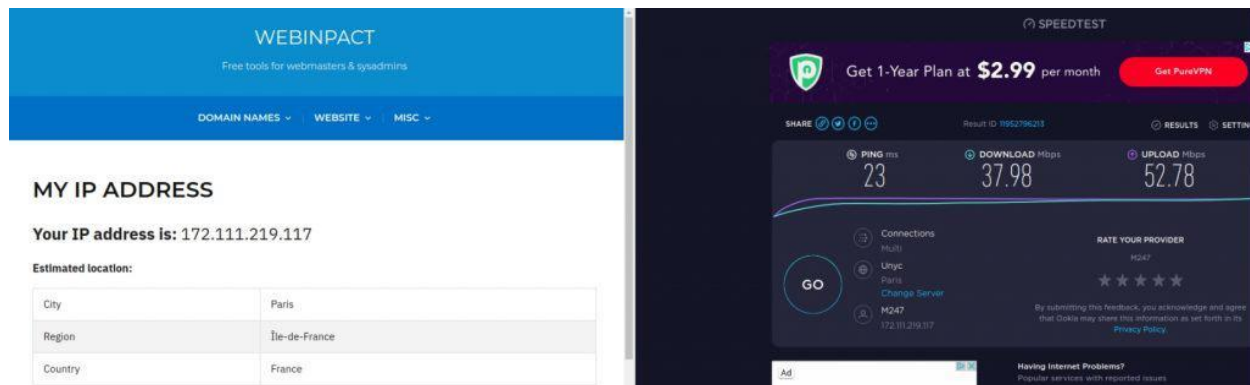
Cons

Not confident with their network when I see their website.

Do they have developers/sysadmin using Linux?

Obsolete documentation

In a nutshell



- **Speed test result:** 38 Mbps (Download) and 52.7 Mbps (Upload)
- **Ping:** 23 ms
- **Pricing:** Cheap (and they often offer discount, so [check the current price here](#))
- **Support:** Tested on a Sunday morning, I got a response in two minutes.
- **Servers:** They list 6500 servers in 140 countries (the biggest network if it's true).

[Visit the PureVPN website for more details.](#)

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This tutorial doesn't work anymore? [Report the issue here](#), so that I can update it!

Wait, I have some recommendations for you!

Before you go any further, I want you to take a look at some of the recommendations I've handpicked for you. I think these are essential items you should have for your Raspberry Pi. You can check them out and buy them directly from Amazon.



[A silent and convenient case](#)

[A cool SSD for increased performances](#)



[A nice monitor, to stop using the TV](#)



[A dedicated keyboard with touchpad](#)

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- [15 best operating systems for Raspberry Pi \(with pictures\)](#)
- [My book: Master your Raspberry Pi in 30 days](#)

FAQ

Which is the fast VPN provider for Raspberry Pi?

As a whole, NordVPN is the fastest provider according to my benchmark done on Raspberry Pi with Raspberry Pi OS installed. They reach 65Mbps in download and 23Mbps in upload, with a ping of 45ms.

I tested all of them with the same conditions: same time, French server (my country), and a premium subscription active. I used [SpeedTest.net](#) as a reference.

VPN Provider Download speed (Mbps) Upload speed (Mbps) Ping (ms)

NordVPN	65.4	22.78	45
IvacyVPN	52.93	16.67	28
PureVPN	37.98	52.78	13
ExpressVPN	34.94	18.31	23
ProtonVPN	33.80	22.03	13

Results will vary depending on your connection, network usage, the server used and if they are loaded or not. Just take these as information, you may get different results in your tests. I tested all of them in similar conditions (same day, the closest server, etc.) but I got different results during the week, it's only an indication to help you make a choice.

Note: I have a 100Mbps connection, but I tested them in Wi-Fi, so 60Mbps is probably the best I can get.

Which VPN provider has the most servers?**VPN Provider Number of servers**

PureVPN	6500
NordVPN	5268
IvacyVPN	3500
ProtonVPN	1326
ExpressVPN	160

Above indicates the number of servers indicated on each provider's website at the time of writing. For ProtonVPN, it's the servers you can access with the highest subscription, they are limited in other plans.

Which VPN provider has the best customer service?

As a whole, most VPN providers offer a live chat 24/7, so it's possible to have an answer in a few minutes directly on their website.

I only tested the response time, here are my results:

VPN Provider Customer service response time

NordVPN	Instant
ExpressVPN	Instant
IvacyVPN	2 minutes
PureVPN	2 minutes
ProtonVPN	Ticket only, over 24 hours.

To be fair, I tested the response time in a Sunday morning. You may get a faster response with ProtonVPN during the week, but it wouldn't be faster than the others.

Which is the cheapest VPN provider?

Here is the ranking at the time of writing, but remember that almost all of them will have discount offers available almost all the time. So, it's just to give you a general idea:

VPN Provider Monthly price (in \$) for one-year engagement

ProtonVPN	Free*
IvacyVPN	3.33
PureVPN	3.74
NordVPN	4.92
ExpressVPN	8.32

ProtonVPN is the only provider with a free option, but even the Pro version is affordable (\$4/month). Just remember that their Pro option has also some limitations, which is not the case with the other providers.

Which VPN provider to use for Kodi on Raspberry Pi?

[IvacyVPN](#) will be the easiest provider to use as they offer an add-on dedicated to Kodi. But **all VPN providers will work in Kodi, as you can install the OpenVPN add-on and import a file from any provider.**

[I explain how to do this here.](#)

Whenever you're ready, here are other ways I can help you:

[The RaspberryTips Community](#): If you want to hang out with me and other Raspberry Pi fans, you can join the community. I share exclusive tutorials and behind-the-scenes content there. Premium members can also visit the website without ads.

[Master your Raspberry Pi in 30 days](#): If you are looking for the best tips to become an expert on Raspberry Pi, this book is for you. Learn useful Linux skills and practice multiple projects with step-by-step guides.

[The Raspberry Pi Bootcamp](#): Understand everything about the Raspberry Pi, stop searching for help all the time, and finally enjoy completing your projects.

[Master Python on Raspberry Pi](#): Create, understand, and improve any Python script for your Raspberry Pi. Learn the essentials step-by-step without losing time understanding useless concepts.

You can also find all my recommendations for tools and hardware [on this page](#).



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OpenVPN Profile



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The Easiest Way to Install OpenVPN Server on Raspberry Pi

•

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- OpenVPN is a service to host your own [VPN](#) server, without using third-party servers. A VPN is a secured connection between two networks, for example between your phone and your home.

In this tutorial, I'll give you a step-by-step method to install it quickly on Raspberry Pi.

OpenVPN is available in the official [repository](#), so it can be installed with [apt](#) as for any other package.

Then, security must be configured to ensure the data is encrypted correctly between both networks.

In fact, I already did a tutorial on [how to install OpenVPN](#) a few years ago, but many of you were lost in the process.

The configuration part is so long and complex, that it was too complicated to follow, especially for a personal usage.

That's why I looked for an easier method to install and configure OpenVPN, and I found it! I will share it with you now.

Note: If you want to see all these steps in action, I have a video lesson available for the community members. [You can join here and watch it directly](#) if you are interested (with 10+ other lessons for Raspberry Pi and many other benefits).

Prerequisites

Just before the installation part, make sure you have everything ready.

For advanced users, you can probably skip this part, I just want to answer all the questions before going further.

What is a VPN?

VPN stands for “Virtual Private Network”, and basically the idea is to merge two networks.

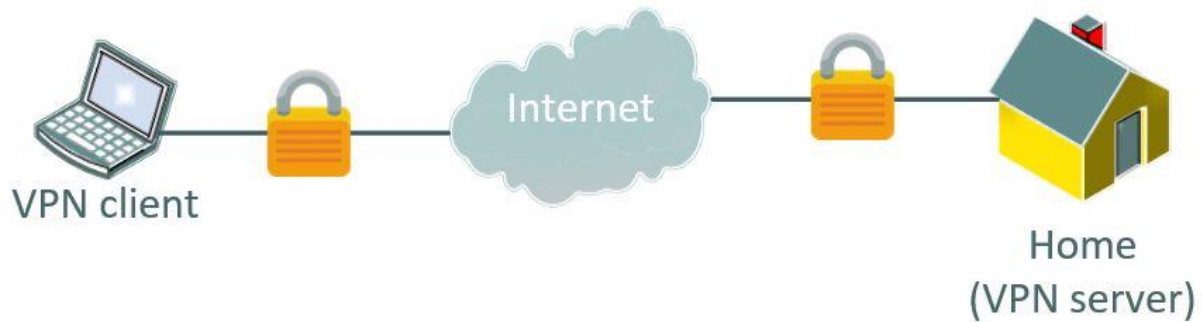
For example, companies can use this to have employees in two different sites, but using the same resources from the main building (like a file share for example).



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With a Raspberry Pi, we'll generally use it to access a remote network from anywhere in the world.

For example, you can access your security camera or home automation web page from your smartphone while traveling.

The smartphone will connect to the Raspberry Pi through the Internet, and create a secured tunnel between the two devices, so that you can access any service on your home network.

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OpenVPN is the software that will make this work on both sides.

Find your IP address

To build this, you need to know your home public [IP address](#) and configure it on the client side.

If you don't know, I'll show you how to get your IP address, and also how to avoid issues if your IP is changing from time to time.

What is my IP?

Finding your current IP address is pretty easy, as there are many websites that will give it to you.

For example, go to WebInpact.com and note your IP address.

MY IP ADDRESS

Your IP address is: X.Y.5.17

Estimated location:

City	At home
Region	In the mountain
Country	France

You'll only need this at the end of the tutorial, when configuring the OpenVPN client, but it's an important prerequisite, especially if you have a dynamic IP address.

Static or Dynamic?

Depending on your Internet provider you may have a static IP address or not.

In my case, I'm not so lucky, so my IP address is replaced with a new one every day or so.

If you are in this case, your VPN client will no longer work after the first change (or you will need to update the IP address each time).

To avoid this, **you can use a free service named [NoIP](#), which provides a free hostname (like [myname.ddns.net](#)) that redirects to your IP address**, even after a change. This way, you can configure your VPN client with myname.ddns.net instead of your IP address.



You just need to have something on your network, that will update the IP address on NoIP regularly.

I have this feature in my Internet router, so I just need to put my credentials in the interface and it's done.

But even if you don't have it in your router, you can install a script on your Raspberry Pi (or any other device) to do the same thing. The Raspberry Pi tutorial is [available here if you are interested](#).

Install Raspberry Pi OS

The last step is to make sure Raspberry Pi OS is installed and configured correctly. If you need help about this, you can check [my step-by-step tutorial here](#).

Before going further, I would recommend checking that:

- **Raspberry Pi OS is installed** (the Lite version is enough for a VPN server).
- You have **access to your network and Internet** on it (Ethernet connection if possible).
- Your **system is up-to-date**
- And **[a few security steps](#) have been made**, especially if you want to keep it powered 24/24 with the VPN service running.

Wait, I have some recommendations for you!

Before you go any further, I want you to take a look at some of the recommendations I've handpicked for you. I think these are essential items you should have for your Raspberry Pi. You can check them out and buy them directly from Amazon.



[A silent and convenient case](#)



[A nice monitor, to stop using the TV](#)



[A dedicated keyboard with touchpad](#)

OpenVPN server setup

Once ready, we can start the server installation on the Raspberry Pi. They are many things involved like network, security settings, users and certificates. But the installation script will take care of everything.

The OVPN script

Connect to your Raspberry Pi by using [SSH](#), and follow this procedure:

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- We'll use the installation script from angristan on GitHub.
You can check the code on [this link](#) before installing it if you want.
- **Copy and paste this command** in your terminal to download it:
`wget https://raw.githubusercontent.com/angristan/openvpn-install/master/openvpn-install.sh -O openvpn-install.sh`
- **Then run the script with:**
`sudo bash openvpn-install.sh`

- The script will show you your local IP address (you'll need it in the next step), your public IP address and ask you a few questions.

```

Do you want to enable IPv6 support (NAT)? [y/n]: n

What port do you want OpenVPN to listen to?
  1) Default: 1194
  2) Custom
  3) Random [49152-65535]
Port choice [1-3]: 1

What protocol do you want OpenVPN to use?
UDP is faster. Unless it is not available, you shouldn't use TCP.
  1) UDP
  2) TCP
Protocol [1-2]: 1

What DNS resolvers do you want to use with the VPN?
  1) Current system resolvers (from /etc/resolv.conf)
  2) Self-hosted DNS Resolver (Unbound)
  3) Cloudflare (Anycast: worldwide)
  4) Quad9 (Anycast: worldwide)
  5) Quad9 uncensored (Anycast: worldwide)
  6) FDN (France)
  7) DNS.WATCH (Germany)
  8) OpenDNS (Anycast: worldwide)
  9) Google (Anycast: worldwide)
  10) Yandex Basic (Russia)
  11) AdGuard DNS (Anycast: worldwide)
  12) NextDNS (Anycast: worldwide)
  13) Custom
DNS [1-12]: 11

```

- Most of the time, you'll **keep the default values**, so just press "Enter" for each question if you don't know.
The OpenVPN installation starts.
- A few seconds later, you will be asked some information about the first user to create.
Give it a name (your name or the device you'll connect with for example), and set a password if needed (not mandatory).

Once done, the script ends and give you the path to the first configuration file:

```

The configuration file has been written to /home/pi/android.ovpn.
Download the .ovpn file and import it in your OpenVPN client.

```

That's it, the VPN server is running and your first client is ready to use

Note: I recommend restarting the Raspberry Pi after the installation. I don't know why, but for me, it was not working before the reboot, even after starting the service manually.

Port forwarding

Before the client configuration, there is an extra step you need to do.

Most likely, your Raspberry Pi is not directly on the Internet, but behind a router. So **you need to configure this router to redirect the VPN connections to your Raspberry Pi.**

The configuration will depend on the router model you have, so I can't give you the exact step-by-step procedure, but your Internet provider can probably help you (for example AT&T has a [documentation page](#) for each modem).

You'll need to configure:

- **The external port:** can be 1194 to keep it simple, or anything else.
- **The internal IP address:** the script displayed it at the beginning, or you can [check this tutorial](#) to get it now.
- **The local port:** which is 1194 by default, or what you set in the script if you didn't keep the default value.

In my case, it looks like this:

customize rules						
application / service	internal port	external port	protocol	device	activate	
Web Ser ▼	22	9998	both ▼	Philips-hi ▼		save
Secure Shell Server (SSH)	22	7777	both	raspberrypi-2	<input checked="" type="checkbox"/>	delete
VPN	1194	1194	both	raspberrypi-1	<input checked="" type="checkbox"/>	delete

So I added the second line, to redirect the port 1194 to the Raspberry Pi, same port.

You can even [use a domain name instead of your IP address](#), especially if your public IP address is not static.

Note: a good idea may be to [use a static IP address on your Raspberry Pi](#), or configure the DHCP server to keep the IP address for your Raspberry Pi.

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OpenVPN client setup

Our VPN server is now available on the Internet, so we can configure a client to connect to it from anywhere.

OpenVPN is available for PC (Windows, Linux) and smartphone (iPhone, Android). I will show you how to install and configure it.

Get the OVPN file

The first step, whatever your system, is to get the file generated on the Raspberry Pi by the OpenVPN wizard.

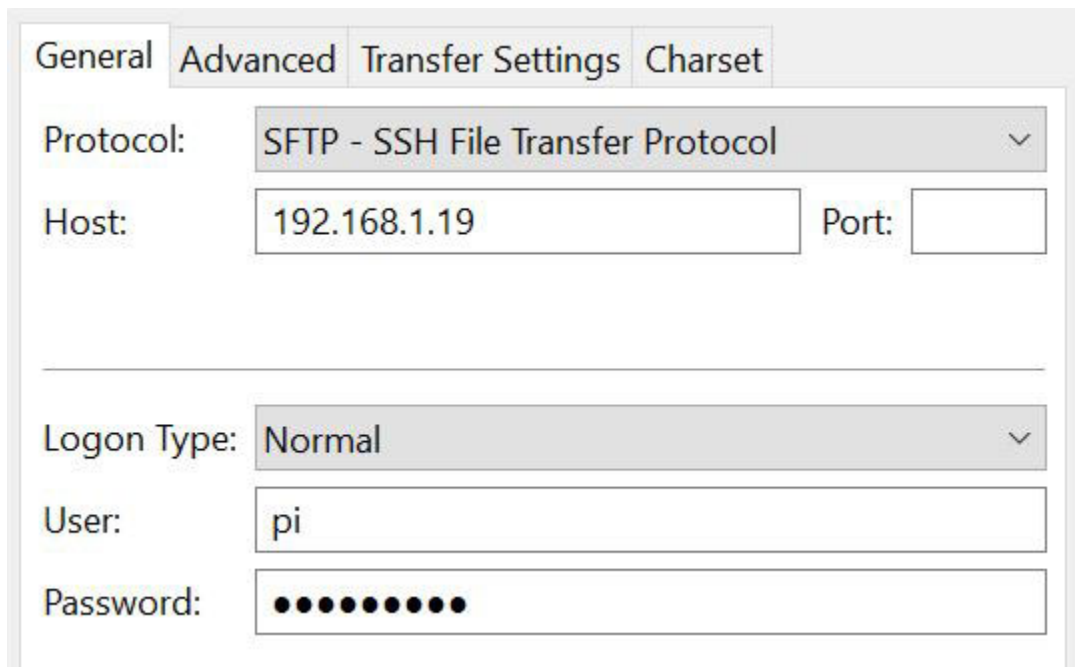
Remember? For me, it was `/home/pi/android.ovpn`

You need to get it on the client where you want to install OpenVPN.

The easiest way to do this if SSH is enabled, is to **connect to the Raspberry Pi with FileZilla or WinSCP, and transfer the file on your computer.**

Then you can send it to any device you want to configure.

On FileZilla, create a new site, and use SFTP to connect to the Raspberry Pi. Set the host IP address, and the username and password.



The image shows the 'General' tab of the FileZilla Site Manager. The 'Protocol' is set to 'SFTP - SSH File Transfer Protocol'. The 'Host' is '192.168.1.19' and the 'Port' is empty. The 'Logon Type' is 'Normal'. The 'User' is 'pi' and the 'Password' is masked with dots.

General	Advanced	Transfer Settings	Charset
Protocol: SFTP - SSH File Transfer Protocol			
Host: 192.168.1.19		Port:	
Logon Type: Normal			
User: pi			
Password: ●●●●●●●●			

Once connected, you can download the file located in `/home/pi`, and send it to the device you want to use as a client (I often do this by email, but for a PC you can use a USB key too).

Edit the file to use your No-IP hostname

If you have a dynamic public IP address and are using [the service from No-IP](#), there is an extra step:

- Open the `.ovpn` file

- Find this line at the beginning:
`remote <IPADDRESS> 1194`
- Replace it with:
`remote <HOSTNAME> 1194`
- Save and close the file

That's it, you can now use it on any device.

Installation on Windows

- **Download OpenVPN installer from [the official website](#)**
- Install it (you can keep the default values)
- Once done, an OpenVPN icon should appear in the tray, near the clock on the bottom right of your screen.
If not, you can start it from the main menu.
- **Right-click on this icon and select “Import file...”.**
- Select the file generated on the Raspberry Pi and confirm.
- **Right-click again, and click on “Connect”.**
It will only work if the device is not on your home network, but you can test it by sharing your phone connection for example.
- Enter your password if you chose to set one in the configuration.

That's it, you are now connected to your VPN server

Installation on iPhone / Android

You can also install OpenVPN on your Phone!

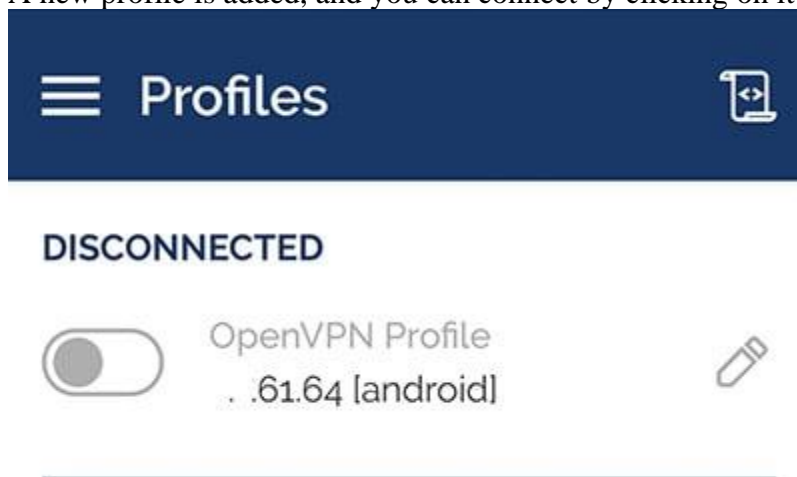
The app is named “OpenVPN Connect” and it's available on the [App Store](#) and [Google Play Store](#).

- **Install the app on your phone**
- **Transfer the .ovpn file to your phone:** the easiest way to do this is to send it by email, and download it from your email app.
- Open OpenVPN Connect

- Go to **Import Profile > File**, and select the .ovpn file from your Download folder



- Click on **“Import”** and **“Add”**
- A new profile is added, and you can connect by clicking on it



Don't forget to **disconnect from the Wi-Fi** if you are on the same network as the Raspberry Pi

- That's it, you are now connected:



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Conclusion

That's it, you now know an easy way to install OpenVPN on your Raspberry Pi, and connect to your home network from anywhere on the planet.

The IP address and port forwarding stuff might be a bit complicated for beginners ([that's why I explain everything here](#)), but the OpenVPN installation is really straightforward with this method.

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I'm the lead author and owner of RaspberryTips.com.

My goal is to help you with your Raspberry Pi problems using detailed guides and tutorials.

In real life, I'm a Linux system administrator with web developer experience.