PiVPN

Simplest OpenVPN setup and configuration, designed for Raspberry Pi.

::: INSTALLATION :::
curl -L https://install.pivpn.io | bash

SIMPLE ::: Yes, that's it! It is *almost* that simple. To elaborate a little more, you will wa
Raspbian on a Raspberry pi. Strongly recommend using the latest Jessie Lite image but
image will work as well. Preferrably enable ssh access and then begin.
There is a (now slightly outdated) guided walkthrough of the install available here.
More information is also available on the PiVPN GitHub

FLEXIBLE ::: Think if you can figure out how to do this yourself you'll have more options
no slouch! It'll allow you to customize your VPN port, certificate details, key encryption
DNS server, and more! Even if you are an expert, the options presented within are a per
for any openvpn server installation. Although this is geared toward running on a $35 Ra
installer will work just as well on an Ubuntu Server running Trusty Tahr 14.04.

MANAGEABLE ::: Installation is finished, now what do you do? No worries, we've got y
Provided free of charge on your server is a new 'pivpn' command. Simply run pivpn and
with all of the available options. Easily add client profiles (OVPN), revoke them, list the
etc. There is also an option to completely remove everything the installer did with the 'p
command. So you can experiment with pivpn with no fear of irreversible changes to you

SECURE ::: Even though this installer makes everything so trivial, it doesn't mean it give
security settings. Everything has been upgraded right out of the box beyond the default
harden the security of the server and client. Starting with offering you the ability to ena
upgrades which will automatically patch your server with security updates. Next the se
will only use the latest TLS 1.2 protocol. Both the data and control channels use upgrad
SHA256 encryption and hash algorithms. Options are pre-configured to verify your ser
battle MITM attack vectors. All this and more are configured out of the box by the pivp
detailed level of hardening you'll have a difficult time finding elsewhere.

About

Origin

There are quite a few various scripts that in some way install openvpn for you. This proj
began from the code by StarshipEngineer to help make installing OpenVPN on a raspbe
it can be. This is still the striving goal today (see Why This Is Important just below). How
the solid foundation provided by StarshipEngineer, I had recently come across the Pi-H
saw just how easy an installation can be! So I took the scripts from StarshipEngineer, th
functions from the pi-hole project, and merged them into what you now see as PiVPN. I
of functionality, failsafe checks, hardened security, etc.... This should be bar none, the si
way to setup an OpenVPN server on your raspberry pi that leaves you with an extreme
configuration. I've made a few additions and tweaks as well to help make managing the
even easier after install. Everything can be managed by using a new 'pivpn' command o
includes adding new client certs, revoking them, and completely uninstalling the pivpn.
that can be added and I hope the suggestions and improvements can be contributed by
large.

Why This Is Important

There are a few driving factors that make this very important to me and I believe the co
In this post Snowden era where our privacy and security is infringed upon, not only by b
potentially by those whom we thought should be protecting these very ideals, it is neces
citizens to take matters into their own hands. The trouble with this, many times, is that
technical you may not know how to begin. I believe the EFF has helped lower a barrier o
with their Let's Encrypt initiative. Allowing many to now have their sites on encrypted c
the next logical step here is also ensuring the pipe you are using is as secure as possible.
could include unknown networks at airports, Starbucks, generic public hot-spots; but al
that end I'd like to make sure these scripts also work on a Debian Jessie image from an A
server. It is important that more and more people have access to protecting their traffic
others won't hand you this protection. PiVPN tries to make it easier for you to grab. Enj

Technical Information

Great news! OpenVPN is undergoing a security audit. This means that at the end of the
software we all rely on to help protect the security of our traffic will be in even better sh
article announcing the audit.
In regards to PiVPN, this means that once OpenVPN 2.4 is released we will make every
PiVPN use this version. This way we gain the security fixes that will come post audit. At
also be able to use the better EC (elliptic curve) ciphers in creating certificates which sh
secure and also less taxing on clients.

For more information on PiVPN be sure to check the PiVPN Wiki
It could also be helpful to browse closed Issues with the Information or Question tag.

Blogs / Video's About PiVPN

The links below showcase some good write ups and tutorials that use PiVPN. Some othe
information may also be contained regarding VPNs and security in general. If you find y
questions on this area then read and/or watch some of the below!

Articles / Blogs

- Create your own VPN server with the Raspberry Pi

The PiVPN Project

Secure connectivity for the masses.
Low cost, high security.

- PiVPN - Create your own VPN for your home network
- PiVPN, Easiest & Quickest Setup of OpenVPN

Video Guides

- How to Setup PiVPN on the Raspberry Pi Tutorial
- Raspberry Pi - OpenVPN Setup via PiVPN

Frequently Asked Questions

There is a FAQ available on the Github page. Be sure to also check the PiVPN Issues sec
the closed ones as your question may already be answered!

Miscellaneous How-To's for OpenVPN Management

The 'pivpn' command

```
::: Control all PiVPN specific functions!
:::
::: Usage: pivpn <command> [option]
:::
::: Options:
:::  -a, add [nopass]     Create a client ovpn profile, optional nopa
:::  -c, clients          List any connected clients to the server
:::  -d, debug            Start a debugging session if having trouble
:::  -l, list             List all valid and revoked certificates
:::  -r, revoke           Revoke a client ovpn profile
:::  -h, help             Show this help dialog
:::  -u, uninstall        Uninstall PiVPN from your system!
```

Contribute!

Contributions are Welcome and Encouraged!

The PiVPN installation code is available on github. Please be sure to check out any issue
the 'help wanted' label.