Tor Project

A Pi a day, keeps censorship away

You would like to support human rights? Then please follow the how-to.

Note: We assume you have a new working Arch Linux running on your RaspberryPi.

Installation

First we have to install all the packages which are needed & useful to us.

<sxh bash;> root@pi# pacman -Syyu root@pi# pacman -S base-devel vim tor ntp tor vnstat sudo </sxh>

After that we should create us an own user account with sudo privileges.

<sxh bash;> root@pi# useradd -m -s /bin/bash YOUR_USERNAME root@pi# vimsudo /etc/sudoers … </sxh>

Now, we install yaourt in order to fetch and install packages from the AUR.

<sxh bash;> root@pi# su YOUR_USERNAME root@pi# wget https://aur.archlinux.org/packages/ya/yaourt/yaourt.tar.gz root@pi# tar xfv yaourt.tar.gz root@pi# cd yaourt root@pi# makepkg -si root@pi# cd ~/ root@pi# rm -r yaourt* root@pi# yaourt -Syua root@pi# yaourt -S arm </sxh>

In order to integrate tor into systemd, we need to write a -n own service file, which ensures fast, easy usage and the guarantuee that at every boot tor will be started along.

<sxh bash;> root@pi# cd /etc/systemd/system root@pi# vim tor.service </sxh>

<sxh bash; title: systemd service file - /etc/systemd/system/tor.service> [Unit] Description=Starting Tor Service

[Service] ExecStart=/usr/bin/tor -f /etc/tor/torrc

[Install] After=multi-user.target </sxh>

<sxh bash;> root@pi# vim ntp-once.service </sxh>

<sxh plain; title:>

</sxh>

Configuration

After this, we finally attack the most important part: Tor configuration.

<sxh bash;> root@pi# cd /etc/tor/ root@pi# mv torrc torrc.original root@pi# vim torrc </sxh>

<sxh plain; title: /etc/tor/torrc> ORPort 443

Log notice file /var/log/tor/notices.log

RelayBandwidthRate 100 KB # Throttle traffic to 100KB/s (800Kbps) RelayBandwidthBurst 200 KB # But allow bursts up to 200KB/s (1600Kbps)

#AccountingStart day 00:00 #AccountingMax 8 GB

SocksPort 0 BridgeRelay 1 Exitpolicy reject *:* </sxh>

Up & Run!

Either type:

<sxh bash;> root@pi# systemctl start tor </sxh>

or simply boot up your device.

References

- Routing 150GB Tor traffic though a Raspberry Pi
- My Blog -Writing systemd service files
- https://trac.torproject.org/projects/tor/wiki/doc/TorFAQ#HowcanIlimitthetotalamountofbandwidthusedbymyTorrelay
- https://library.linode.com/securing-your-server#sph_creating-a-firewall
- https://www.torservers.net/wiki/setup/obfsproxy?s[]=torrc

Conclusion