

Updated
for Raspbian
Stretch

Virtual Private Networking with OpenVPN



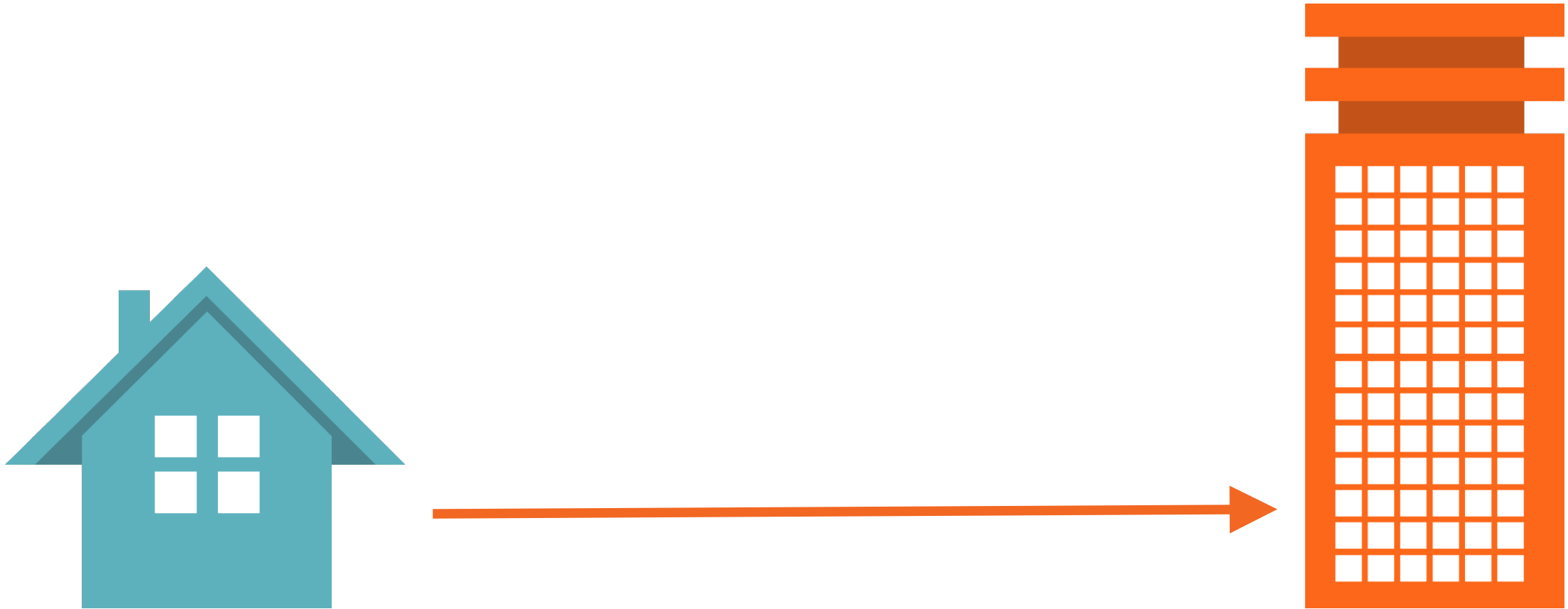
Mel Grubb

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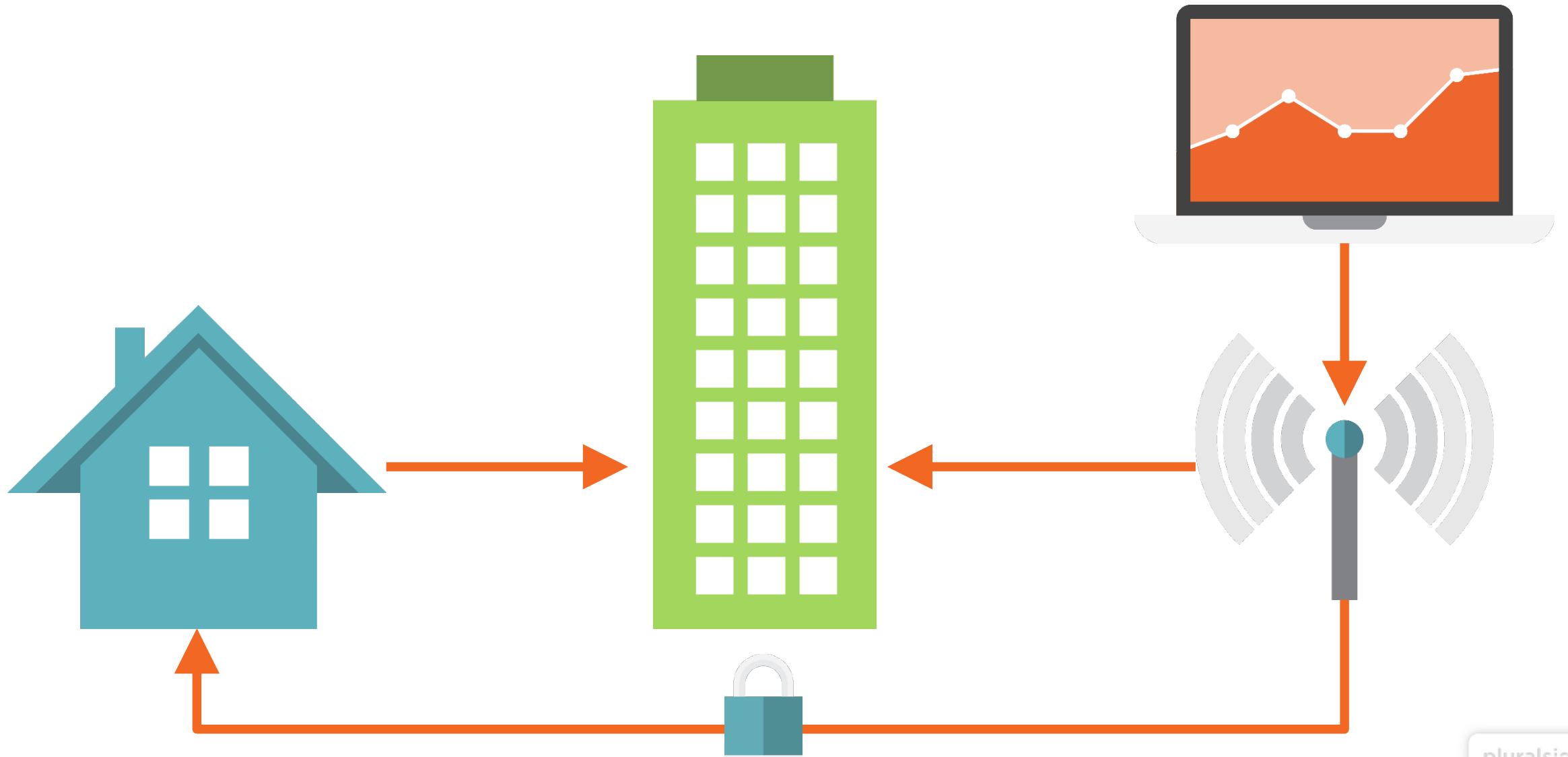
PiVPN

- Simple
- Friendly
- Automates VPN maintenance
- www.pivpn.io
- `curl -L https://install.pivpn.io | bash`

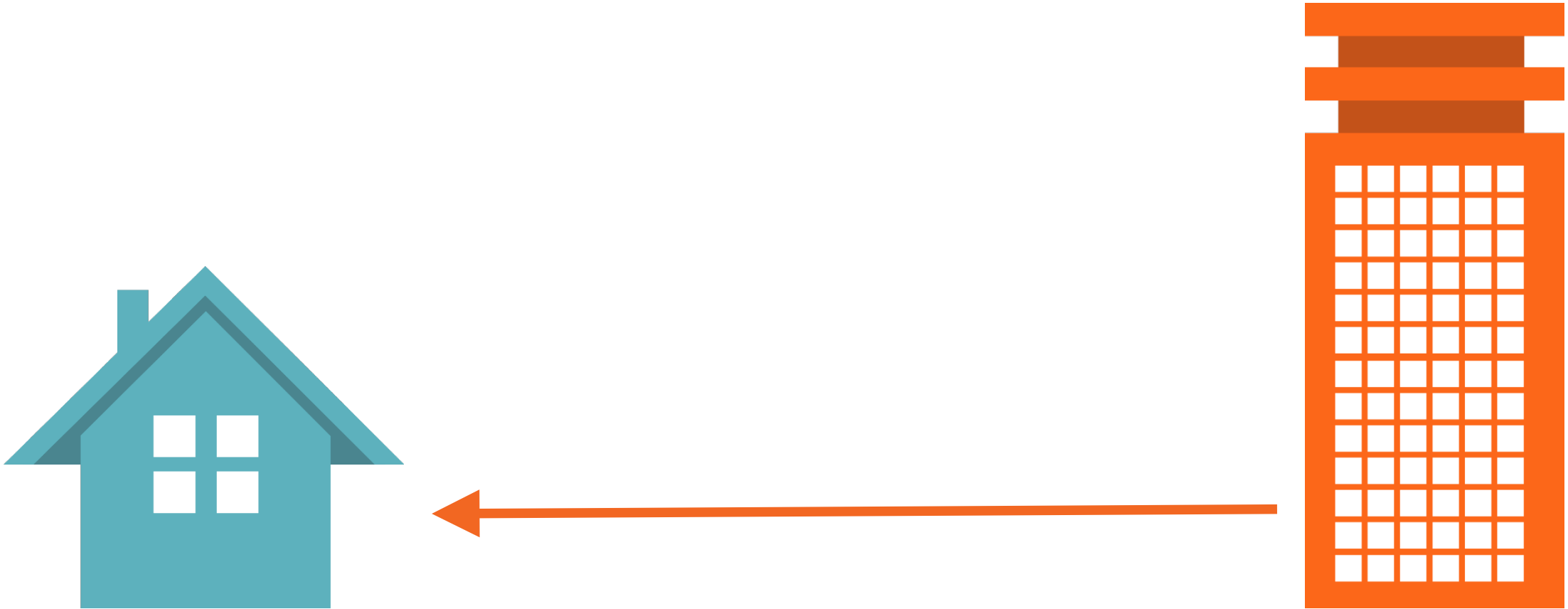
What Is VPN?



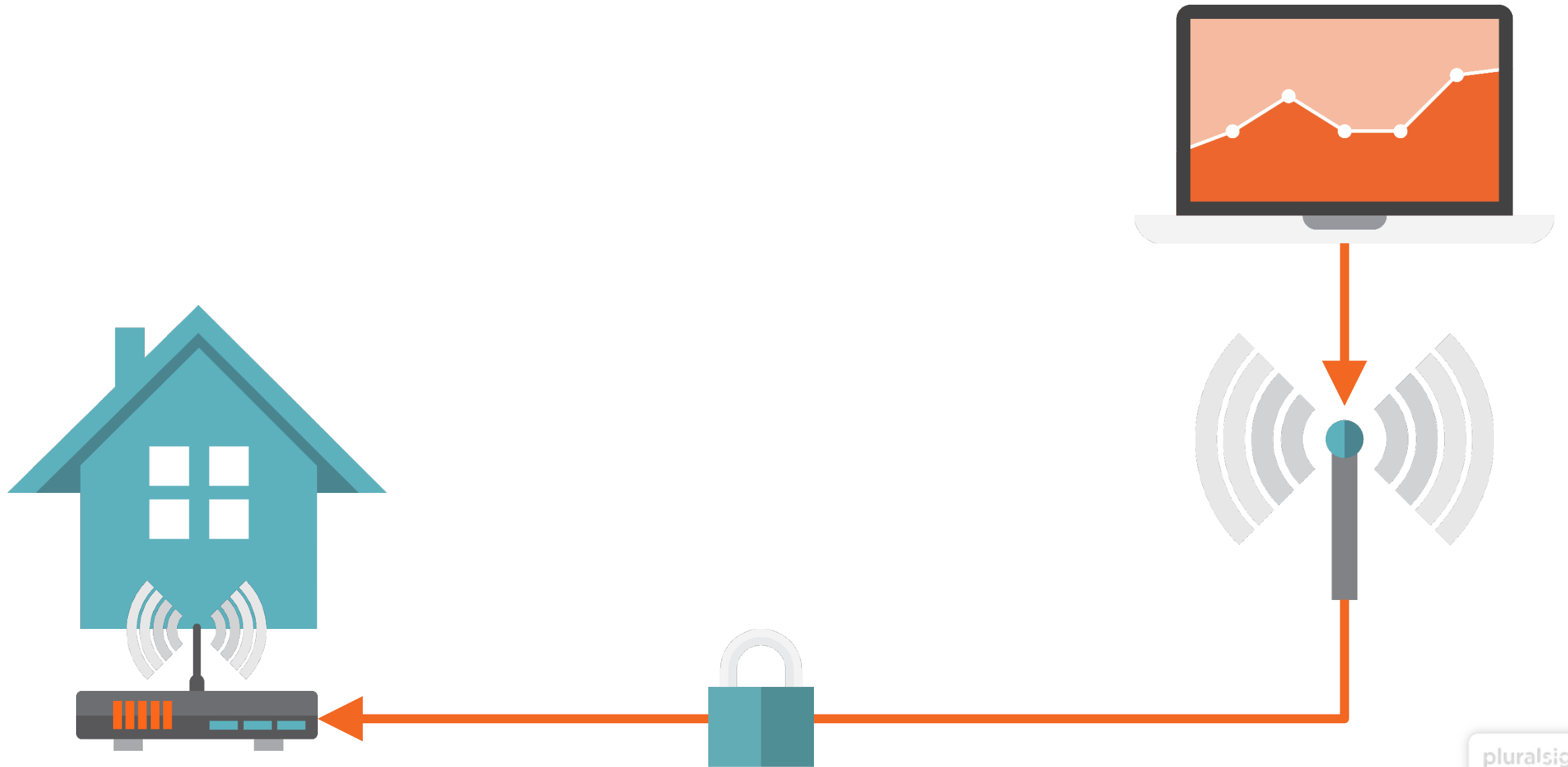
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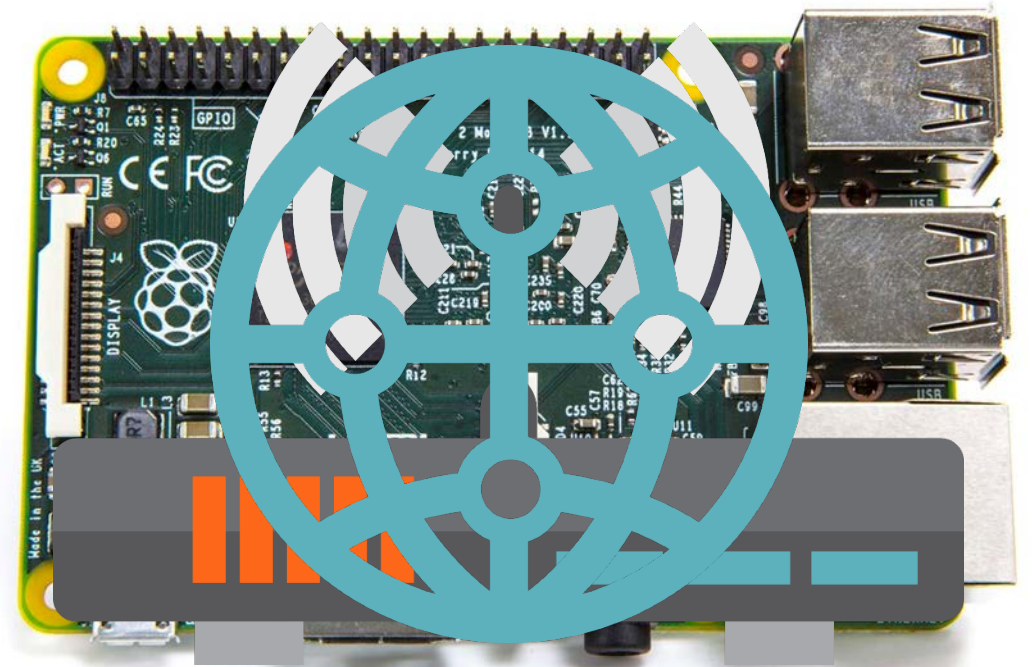


Why Add It to the Pi?



Prerequisites

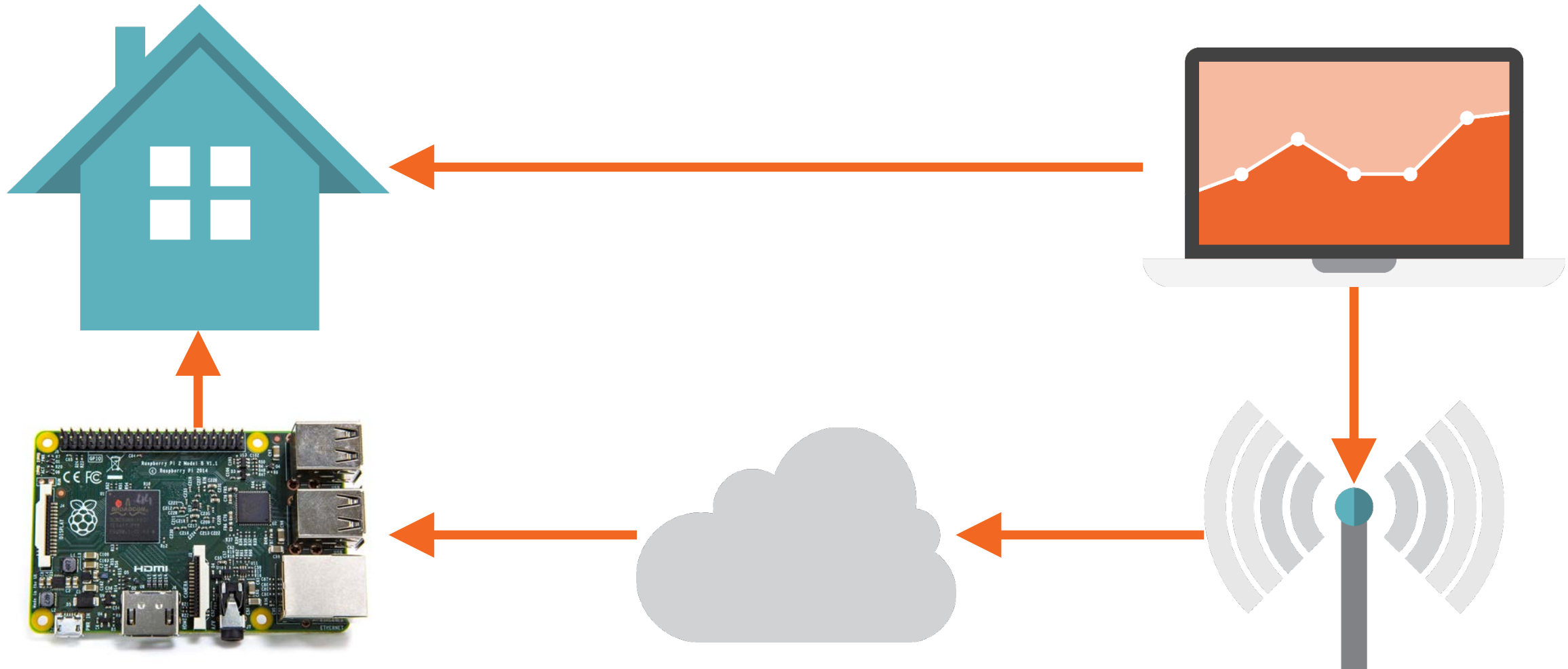
- Raspberry Pi Home Server
- Open-VPN capable “regular” computer
- Firewall administration rights
- “Known” external IP address (www.no-ip.org)



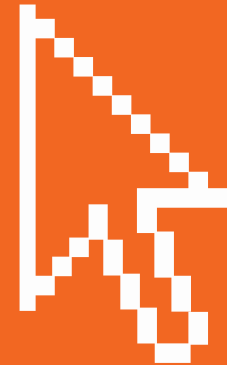
Demo: Installing OpenVPN



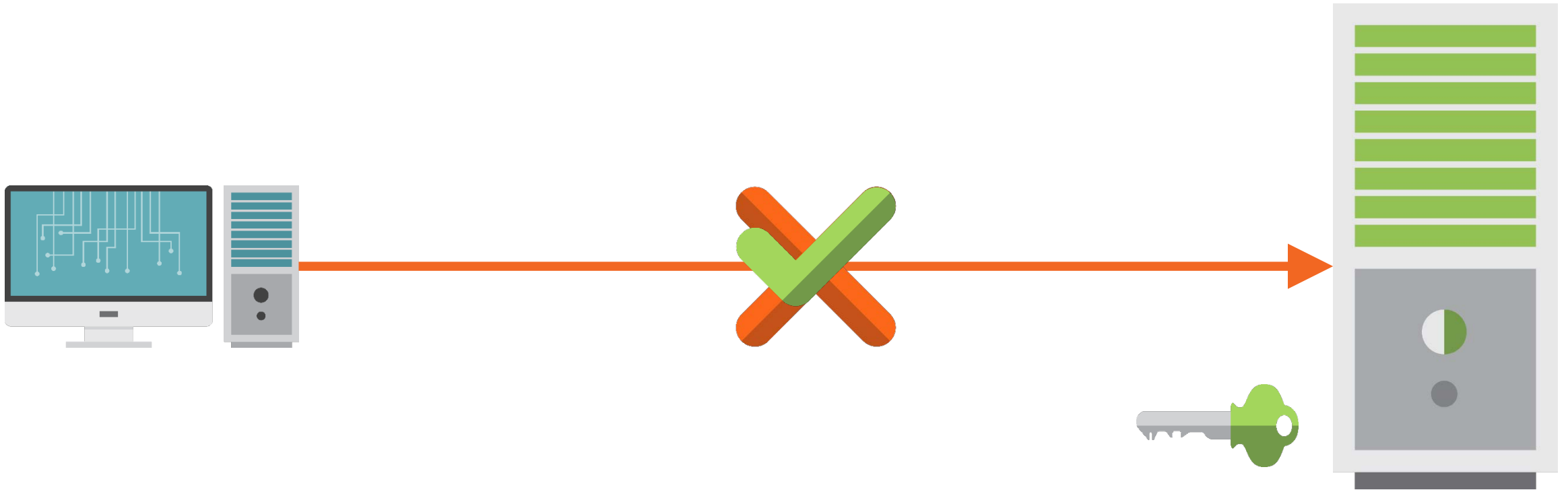
Network Address Translation



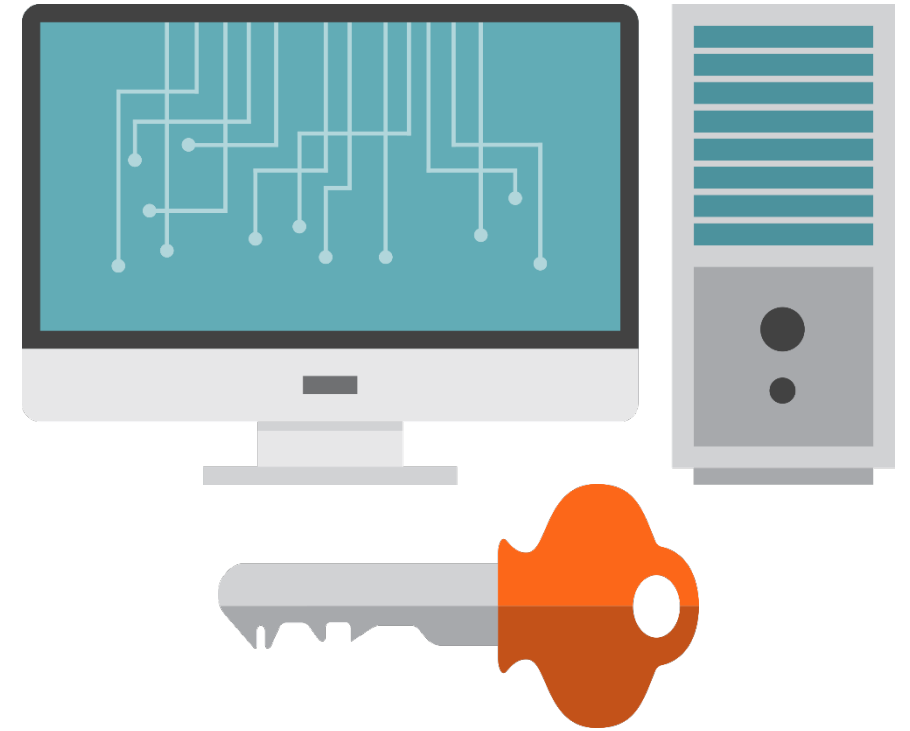
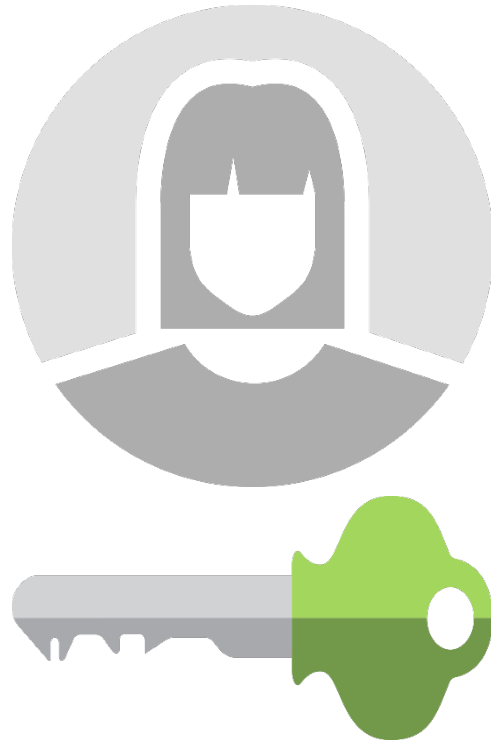
Demo: Network Address Translation



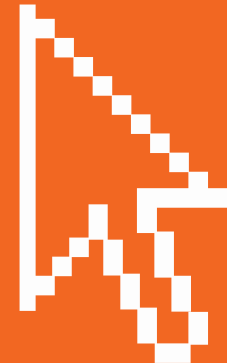
Client Keys



Generating Client Keys



Demo: Generating Client Keys



Reboot



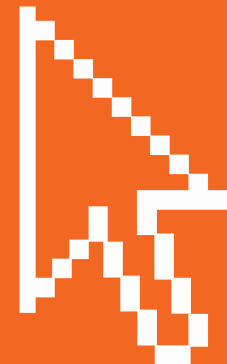
Generating Additional Keys

- `sudo su`
- `cd /etc/openvpn/easy-rsa`
- `source vars`
- `./build-key-pass NAME`
- `cd keys`
- `openssl rsa -in NAME.key -des3 -out NAME.3des.key`
- `./makeovpn.sh`

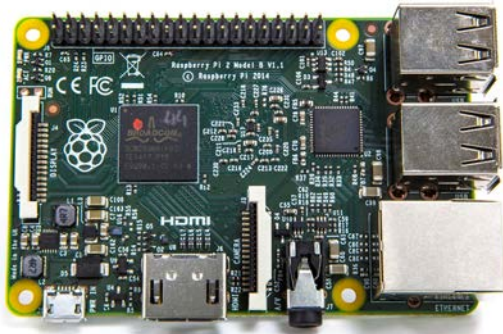
Demo: Generating Additional Keys



Demo: Installing OpenVPN Client



Summary



- Installed OpenVPN server
- Generated SSL certificates
- Generated server keys
- Generated client keys
- Installed OpenVPN client
- Connected via OpenVPN

Make A Backup

Windows

Win32DiskImager

Mac / Linux

```
sudo dd if=/dev/diskn of=~/.pi.img bs=1m
```



What's Next?

BitTorrent Sync