

CALUG February 2016

OpenVPN for Home Use

Chuck Frain
For CALUG

Introduction

- Reasons to use OpenVPN
- Server Installation Options
- Client Configuration
- Tips and Warnings

Why Host an OpenVPN Server

- Accessing Your Network
- Maintaining Connections Between Locations
- Avoid Monitoring
- Public WiFi
 - Restaurants/Cafes
 - Retail Stores
 - Conferences
 - Hotels
 - Advertising Injections

Installation Methods

- Linux install via package manager
 - Varies based on distribution
 - Configuration files are the same
- OpenVPN Access Server
- As part of a firewall/router distribution
 - PfSense
 - DD-WRT
 - Tomato
 - Untangle
- Windows
- OSX
- Scripts and configuration examples via internet searches

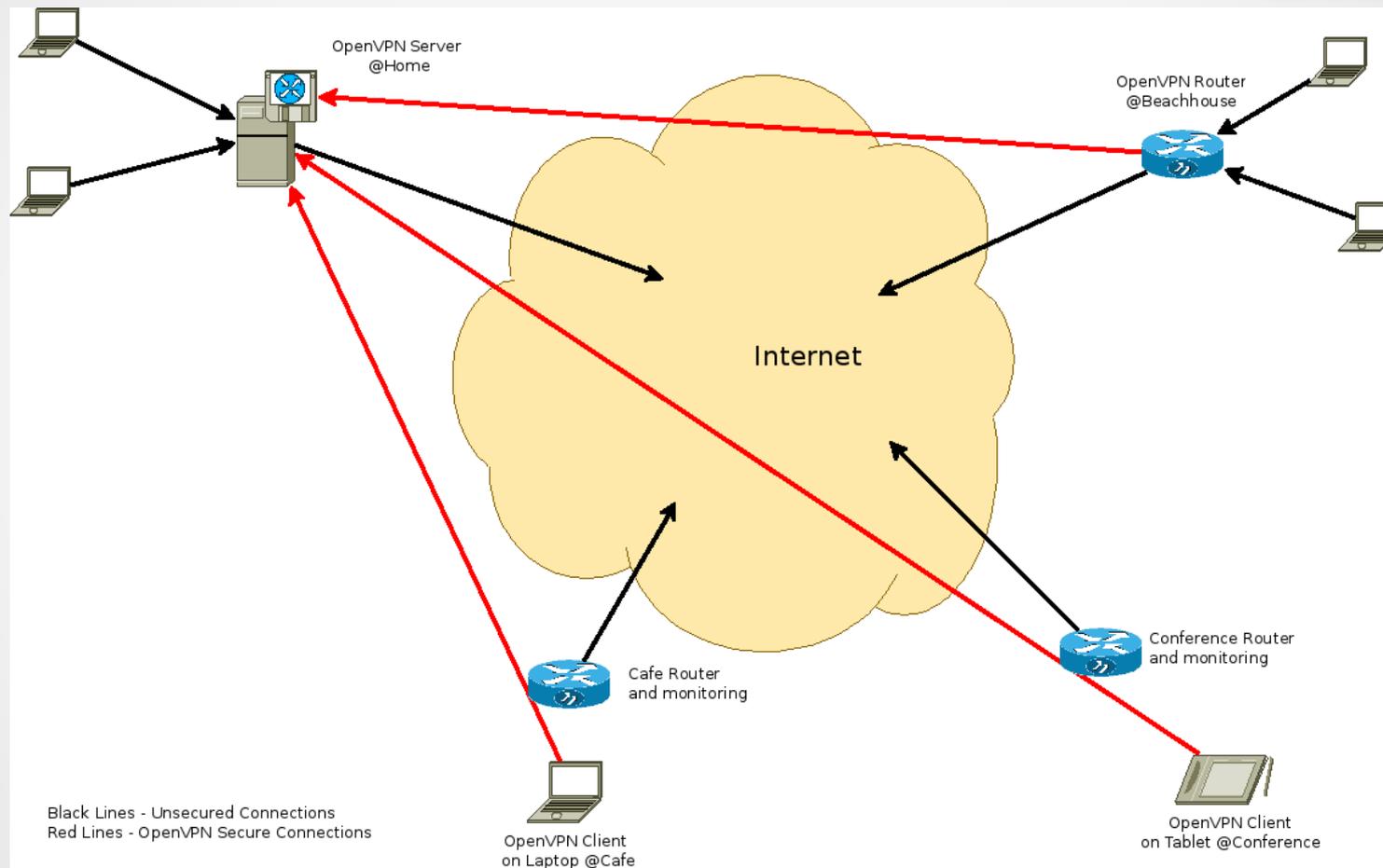
Server Installation Options

- UDP or TCP
- Port Selections
- Authentication Methods
 - Certificate (with or without password)
 - User needs .key(keep secret), .crt, ca.crt
 - *.csr is not shared
 - Username and password
 - Utilize two factor authorization to enhance security

Client Configuration

- Major Desktop and Mobile OSs Supported
- Same Configuration Files (.ovpn) across platforms
 - Config files are text and editable as such
- Can be configured as a service
- Note: SELinux protected machines need to have special permissions on a ~/.cert directory with NetworkManager

OpenVPN Diagram



Tips and Warnings

- Double NAT
 - Explicit Port Forward
- Some networks block ports/protocols
 - Sometimes can be 'hidden' on port 443
 - Share port 443 when forwarded on the router for a web server
 - Use the 'port-share x.x.x.x 443' setting in the config file.
Apache can be on another server or port on same server
- Dynamic DNS is useful
- Endpoints are not encrypted
- Phones may use IPv6 by default

Questions & References

- <https://openvpn.net>
- User Cert zip Script - <https://git.io/vgW63>
- Sample .ovpn file - <https://git.io/vgWie>
- OpenVPN for Android - Arne Schwabe
- Email - chuck@chuckfrain.net
- Twitter - @chuckfrain
- <https://Github.com/chuckf>
- <http://creativecommons.org/licenses/by-sa/4.0/>