A need for an unrestricted Internet
Solution: OpenVPN tunnel
The Web Security Device is born
Autonomous Mobile Access Point
Wireless clients:
Computer, laptop, smartphone, tablet, iThing
Windows, Linux, OSX, Android

Secure Wireless Access Point

USB, WiFi, Ethernet

Android device, Public Access Point, Ethernet Network

Cellular Data Network

Internet Provider

Internet

Secure, Unsecure
Access Point Features

- WPA2-PSK security
- DHCP server
- Internet forwarding
- Dynamically addressed firewall rules
- Ad-blocker script with quick custom rules
- AP and DHCP server fully configurable in web interface
A Transparent OpenVPN proxy
OpenVPN Features

- Point to point tunneling with internet forwarding
- Capable of traversing NATs and firewalls
- Very stable and fast over wireless, cellular and other non reliable networks
- No major vulnerabilities and considered extremely secure

- **Authentication**: self-generated OpenSSL certificate
- **Encryption**: AES-256
A Transparent TOR Proxy

- Anonymous browsing
A Transparent TOR Proxy

- Access forbidden websites / services based on location
TOR Features

- Prevents people from learning your physical location or browsing habits
- Helps defend individuals against traffic analysis
- Helps businesses to keep their strategies confidential
- Helps activists to anonymously report abuses or corruption
- Helps journalists to protect their research and sources online
- Helps people to use online services blocked by their local Internet providers
Additional Features

- Touch display + control software
- Web interface for advanced settings
- Software and OS on accessible SD-card: easy and economical to maintain, repair, replace
- Very low power consumption: ~5 Watts, runs on a phone charger (1 Amp mini)
- Onboard battery: ~4h running time
- External battery: adds ~8h and charges onboard battery
- Very easy to clone and deploy
Used Licences / Software parts

- Creative Commons Attribution-ShareAlike
- GNU General Public License 2 or 3
- Apache Licence 1.0
- BSD Licence
- PHP Licence
- MIT Licence
Target audience

- Journalists
- Activists
- Every kind of job/activity that require confidentiality / privacy / security
- Every kind of job/activity that require secure remote access
- «Normal» people who want to fight a form of network surveillance that threatens personal freedom and privacy
Planned improvements

- Improved privacy filters
- Improved internet access monitoring
- Improved power management / monitoring

- Model 1: actual handheld device with improved custom enclosure
- Model 2: router-like box
The Hackaday Prize will be awarded to the best example of an open, connected device.

Who will rise to the occasion before time runs out in November?

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