

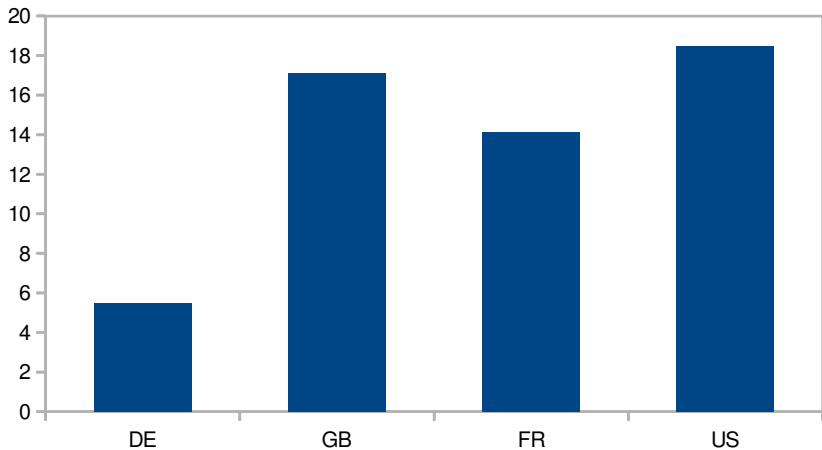
# Wlanrouter ins TorNetzwerk

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June 13, 2015

# offenes WLAN

% offener WLAN



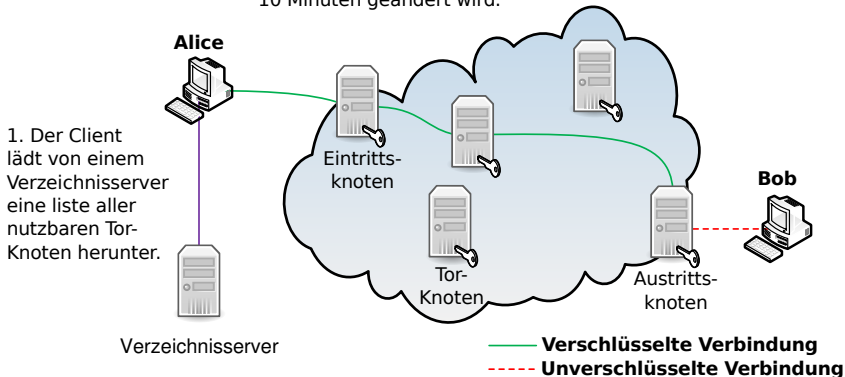
- Änderung des Telemediengesetzes
- Auszug:

Sonstige Diensteanbieter, die einen Internetzugang nach Absatz 3 zur Verfügung stellen, können wegen einer rechtswidrigen Handlung eines Nutzers nicht auf Unterlassung in Anspruch genommen werden, wenn sie [...] die Namen der Nutzer kennen, denen sie den Zugang gewährt haben.

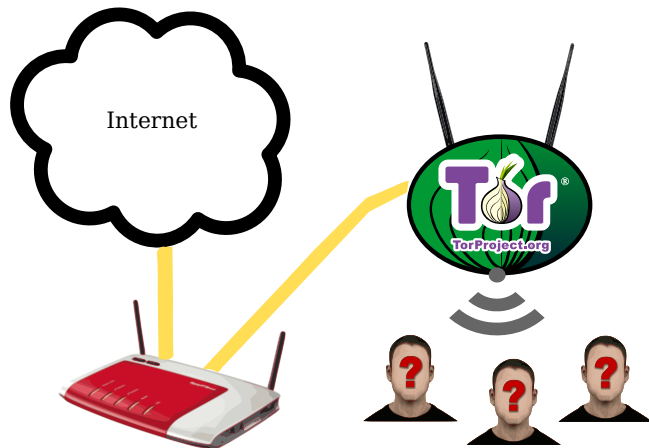
Tor



2. Der Client baut zum Ziel eine zufällige Route über drei Tor-Knoten auf, die alle 10 Minuten geändert wird.



# Aufbau



# Zutaten





**+** **OpenWrt**  
Wireless Freedom



# OpenWRT flashen

The screenshot shows a web browser window with the address bar displaying '192.168.0.254'. The page header features the TP-LINK logo and the product name '300M Wireless N Range Extender Model No. TL-WA850RE'. A left sidebar contains navigation links: Status, Quick Setup, Profile, Network, Wireless, and System Tools (highlighted). Under System Tools, there are links for Firmware Upgrade, Factory Defaults, Backup & Restore, Reboot, Password, and System Log. The main content area is titled 'Firmware Upgrade' and contains a form with the following fields: 'File:' with a 'Choose File' button and the text 'openwrt-ar71x...-factory.bin', 'Firmware Version:' with the value '3.14.8 Build 140310 Rel.54716n', and 'Hardware Version:' with the value 'WA850RE v1.2 00000000'. An 'Upgrade' button is located below these fields. To the right of the main content area is a 'Firmware Upgrade Help' section with instructions on how to upgrade the firmware, including downloading the file from the TP-Link website and following the upgrade steps. At the bottom of the help section, there are descriptions for 'Firmware Version' and 'Hardware Version'.

TP-LINK® 300M Wireless N Range Extender Model No. TL-WA850RE

**Firmware Upgrade**

**File:**  openwrt-ar71x...-factory.bin

**Firmware Version:** 3.14.8 Build 140310 Rel.54716n

**Hardware Version:** WA850RE v1.2 00000000

**Firmware Upgrade Help**

To upgrade this device's firmware, follow these instructions:

1. Download a most recent firmware upgrade file from our website ([www.tp-link.com](http://www.tp-link.com)).
2. Enter or select the path name where you save the downloaded file on the computer into the **File Name** blank.
3. Click the **Upgrade** button.
4. This device will reboot while the upgrading has been finished.

**Firmware Version** - Displays the current firmware version.

**Hardware Version** - Displays the

OpenWrt - Administrat...

192.168.1.1/cgi-bin/luci/stok=4567f54d129d7a648648ca17e28d4d91/admin/system/admin



OpenWrt Status System Network Logout

## SSH Access

Dropbear offers [SSH](#) network shell access and an integrated [SCP](#) server

### Dropbear Instance

Delete

Interface ☐ lan:  

☒ unspecified

☒ Listen only on the given interface or, if unspecified, on all

Port

☒ Specifies the listening port of this Dropbear instance

Password authentication ☐ ☒ Allow [SSH](#) password authentication


Allow root logins with password ☐ ☒ Allow the root user to login with password


Gateway ports ☒ ☒ Allow remote hosts to connect to local SSH forwarded ports

Add

### SSH-Keys

Here you can paste public SSH-Keys (one per line) for SSH public-key authentication.

 Add

 `mMfubTcwyOPCMnShG8okG+Qiemca9P2fc2YlvsPJZ3/UT7SLuPTahJmSAPCQA8cOB+HM8zoELk0bt0Z2etN0VvGw== warne@DebianGX960`

Save & Apply Save Reset

Powered by Luci Trunk (0.12+svn-r10530) OpenWrt Barrier Breaker 14.07

# Tor installieren

```
opkg update  
opkg install tor
```

oder

```
make image \  
PROFILE=TLWA850 \  
PACKAGES=" -uhttpd -uhttpd-mod-ubus -luci-app-firewall \  
-luci-proto-ppp -ppp -ppp-mod-pppoe -kmod-ppp -kmod-pppoe -kmod-pppox \  
-kmod-ip6tables -ip6tables -kmod-ipv6 -odhcp6c -firewall \  
-rssileads -libxtables -opkg \  
tor"
```

# wlan

/etc/config/wireless:

```
config wifi-device 'radio0'
    option type 'mac80211'
    option channel '11'
    option hwmode '11g'
    option path 'platform/ar934x_wmac'
    option htmode 'HT20'
    option disabled '0'
```

```
config wifi-iface
    option device 'radio0'
    option mode 'ap'
    option ssid 'Torrouter'
    option encryption 'none'
    option network 'Torwlan'
```

# Netzwerk

/etc/config/network:

```
config interface 'inetlan'
    option proto 'dhcp'
    option ifname 'eth0'
    option hostname 'Torrouter'

config interface 'Torwlan'
    option proto 'static'
    option ifname 'wlan0'
    option ipaddr '192.168.38.1'
    option netmask '255.255.255.0'
    option dns '127.0.0.1'
```

/etc/config/dhcp:

```
config dhcp 'wlan'
    option interface 'Torwlan'
```

# Transparenten Proxy aktivieren

```
VirtualAddrNetworkIPv4 10.192.0.0/10  
AutomapHostsOnResolve 1  
TransPort 9040  
TransListenAddress 192.168.38.1  
DNSPort 5343  
DNSListenAddress 192.168.38.1
```

# Umleiten

```
iptables -t nat -A PREROUTING -i wlan0 -p udp --dport 53 \  
-j REDIRECT --to-ports 5353  
iptables -t nat -A PREROUTING -i wlan0 -p tcp --syn \  
-j REDIRECT --to-ports 9040
```

# Aber Verschlüsselung?

- **Fremder Datenverbrauch:** Der durchschnittliche Datenverbrauch liegt laut Bundesnetzagentur bei 21 GB im Monat. Sogar O<sub>2</sub> bietet 300GB. Kabel Deutschland 60GB Pro Tag. Die meisten Anbieter beschränken gar nicht (16TB bei 50MBit/s)



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- **Sicherheit:** Nach dem WLAN wird der Verkehr sowieso nicht verschlüsselt.

*In networks protected by firewalls, it is axiomatic that all attackers are on the outside of the firewall. Therefore, hosts inside the firewall MUST NOT set the evil bit on any packets. - RFC 3514*

- Diverse weitere WLANs werden genutzt.

# Und in Zukunft?

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- IPv6 (NAT64)
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- Freifunk router.
- Das ganze mit Solar und UMTS.

09.06.2015 - 19:39 UHR [HOME](#) [GELD](#) [WIRTSCHAFT](#) [OFFENES WLAN: FREIFUNK IST DIE ZUKUNFT!](#)

# NEUE NETZ-KOLUMNE VON NICO LUMMA

**WLAN FÜR ALLE**

# Freifunk ist die Zukunft!

- Anleitung: <https://trac.torproject.org/projects/tor/wiki/doc/TransparentProxy>



# Vortragsfolien

