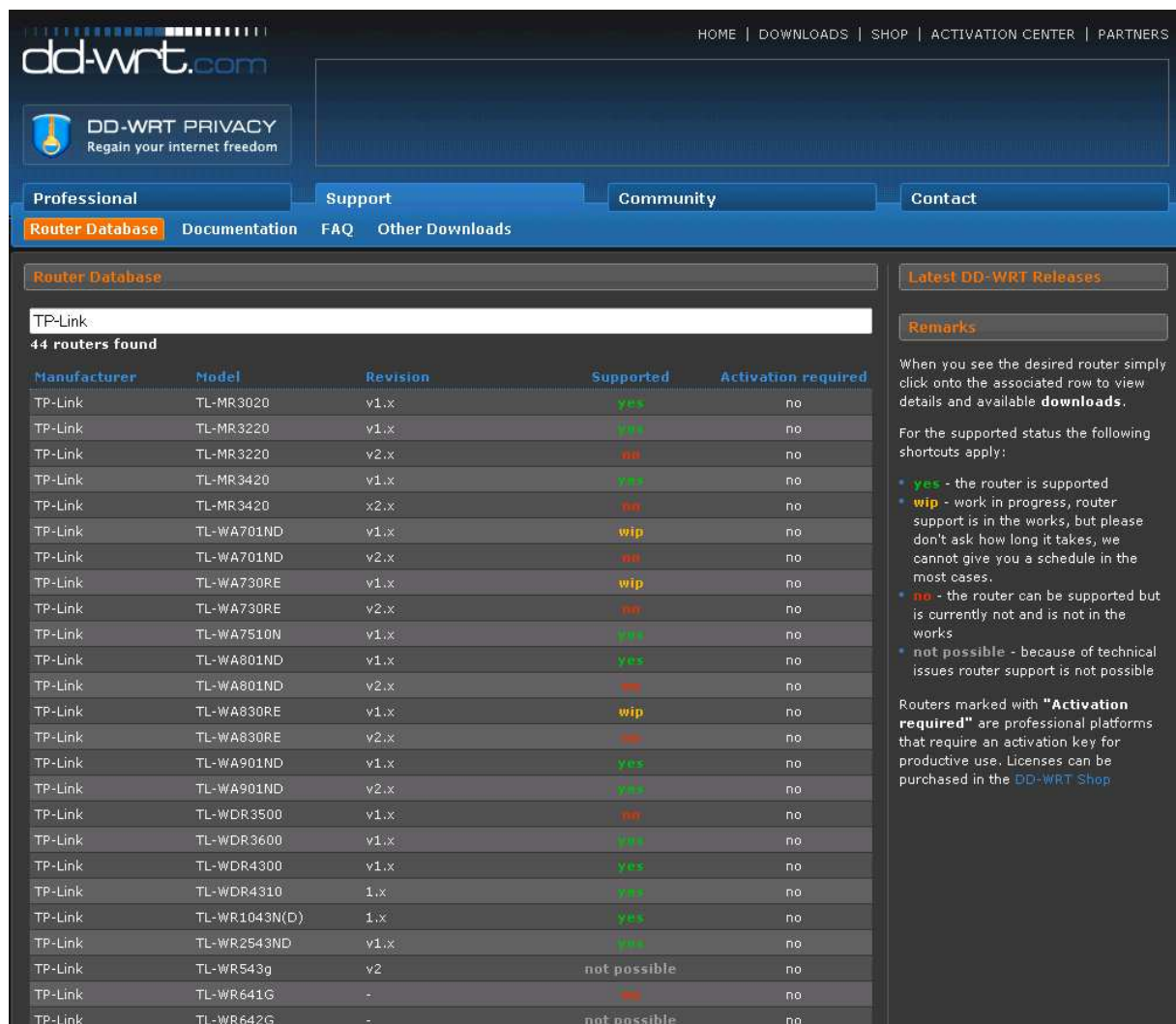


Basis für unser kindersicheres WLAN ist ein kostengünstiger (oder vorhandener) WLAN-Accesspoint oder –Router dessen Hersteller-Firmware durch frei Software ersetzt wird, die umfangreichere Möglichkeiten bietet als das Original. In unserem Fall wäre das DD-WRT mit der Homepage unter <http://www.dd-wrt.de>



Dort klicken wir das Menü ‚Router-Database‘ an um ein aktuelles passendes Gerät zu finden, z.B. vom Hersteller TP-Link, der recht günstige Hardware anbietet.



TP-Link	TL-WR703N	1.x	yes	no
TP-Link	TL-WR740N	1.x	yes	no
TP-Link	TL-WR740N	2.x	yes	no
TP-Link	TL-WR740N	3.x	yes	no
TP-Link	TL-WR740N	4.x	yes	no
TP-Link	TL-WR741ND	1.x / 2.x	yes	no
TP-Link	TL-WR741ND	4.0	yes	no
TP-Link	TL-WR743ND	v1.x	yes	no
TP-Link	TL-WR743ND	v2.x	no	no
TP-Link	TL-WR840M	v1.x	yes	no
TP-Link	TL-WR841N(D)	3.x	yes	no
TP-Link	TL-WR841N(D)	5.x	yes	no
TP-Link	TL-WR841N(D)	7.x	yes	no
TP-Link	TL-WR841N(D)	8.x	yes	no
TP-Link	TL-WR842N(D)	v1.x	yes	no
TP-Link	TL-WR940ND	v1.x	yes	no
TP-Link	TL-WR941N(D)	v1.x / v2.x / v3.x	yes	no
TP-Link	TL-WR941N(D)	v4.x / (v5.x old)	yes	no
TP-Link	TL-WR941ND	v6.x	no	no

Dort findet man z.B. aktuell das Model TL-WR841N(D) das in allen produzierten Versionen (3.x bis 8.x) unterstützt wird was man am grünen ‚yes‘ erkennen kann. Außerdem hat das Gerät einen Straßenpreis von nur ca. 25,- €. Nach dem Klicken auf das ausgewählte Modell bekommt man einen Download-Link der wie folgt o.ä. aussieht.

dd-wrt.com HOME | DOWNLOADS | SHOP | ACTIVATION CENTER | PARTNERS

DD-WRT PRIVACY Regain your internet freedom

Professional Support Community Contact

Router Database Documentation FAQ Other Downloads

Router Database Latest DD-WRT Releases

TP-LINK TL-WR8
(Click into the search field to return to the list)

TP-Link TL-WR841N(D) 7.x

Router details Additional information

Chipset AR7241
RAM 32 MB
FLASH 4 MB

Supported by v24 PreSP2 [Beta] Build: 21061

Remarks
For more information regarding installation and configuration please refer to the following sources:
• DD-WRT Wiki
• DD-WRT User Forum

Description	Filename	Date	Size
WR841N(D) v7.x Firmware - Webflash image for first installation	factory-to-ddwrt.bin	2013-04-25	3,75 MB
WR841N(D) v7.x Webrevert - Back to stock	wr841nv7_webrevert.rar	2013-04-24	2,84 MB
WR841N(D) v7.x Firmware - Webflash image	tl-wr841nd-webflash.bin	2013-04-25	3,75 MB

In diesem Fall ist die Datei ‚factory-tto-ddwrt.bin‘ die benötigte Firmware für unser Gerät. Diese Firmware muss nun über den originalen Webaccess des Gerätes (siehe Handbuch) als Firmware-Update installiert werden.

TP-LINK 300M Wireless N Router
Model No. TL-WR841N / TL-WR841ND

Firmware Upgrade

File:

Firmware Version: 3.12.5 Build 100929 Rel.57776n
Hardware Version: WR841N v6/V7.00.000000

Firmware Upgrade Help

To upgrade the Router's firmware, follow these instructions:

1. Download a most recent firmware upgrade file from our website (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. The Router will reboot while the upgrading has been finished.

Firmware Version - Displays the current firmware version.

Hardware Version - Displays the current hardware version. The hardware version of the upgrade file must accord with the current hardware version.

Note: The firmware version must correspond to the hardware. The upgrade process takes a few moments and the Router restarts automatically when the upgrade is complete. It is important to keep power applied during the entire process. Loss of power during the upgrade could damage the Router.

1 → **Firmware Upgrade** (left sidebar)
2 → **Durchsuchen...** (file input)
3 → **openwrt-ar71xx-generic-tl-wr841nd-v7-squashfs-factory.bin** (file selection)
4 → **Upgrade** (button)

Nach dem obligatorischen Neustart sollte nun der Webaccess (nach Passwortänderung) wie folgt o.ä. aussehen.

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 11:57:25 up 10 min, load average: 0.28, 0.11, 0.06
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup Wireless Services Security Access Restrictions NAT / QoS Administration Status

System Information

Router

Router Name	DD-WRT
Router Model	TP-Link TL-WR740N v4
LAN MAC	<u>A0:F3:C1:79:4E:51</u>
WAN MAC	<u>A0:F3:C1:79:4E:50</u>
Wireless MAC	<u>A0:F3:C1:79:4E:50</u>
WAN IP	192.168.99.134
LAN IP	192.168.1.1

Services

DHCP Server	Enabled
WRT-radauth	Disabled

Wireless

Radio	Radio is On
Mode	AP
Network	Mixed
SSID	family-wlan
Channel	6 (2437 MHz)
TX Power	18 dBm
Rate	72.2 Mb/s

Memory

Total Available	29.1 MB / 32.0 MB
Free	12.8 MB / 29.1 MB
Used	16.3 MB / 29.1 MB
Buffers	2.0 MB / 16.3 MB
Cached	6.1 MB / 16.3 MB
Active	4.3 MB / 16.3 MB
Inactive	5.3 MB / 16.3 MB

Wireless Packet Info

Received (RX)	5567 OK, no error
Transmitted (TX)	5909 OK, no error

Wireless

Clients

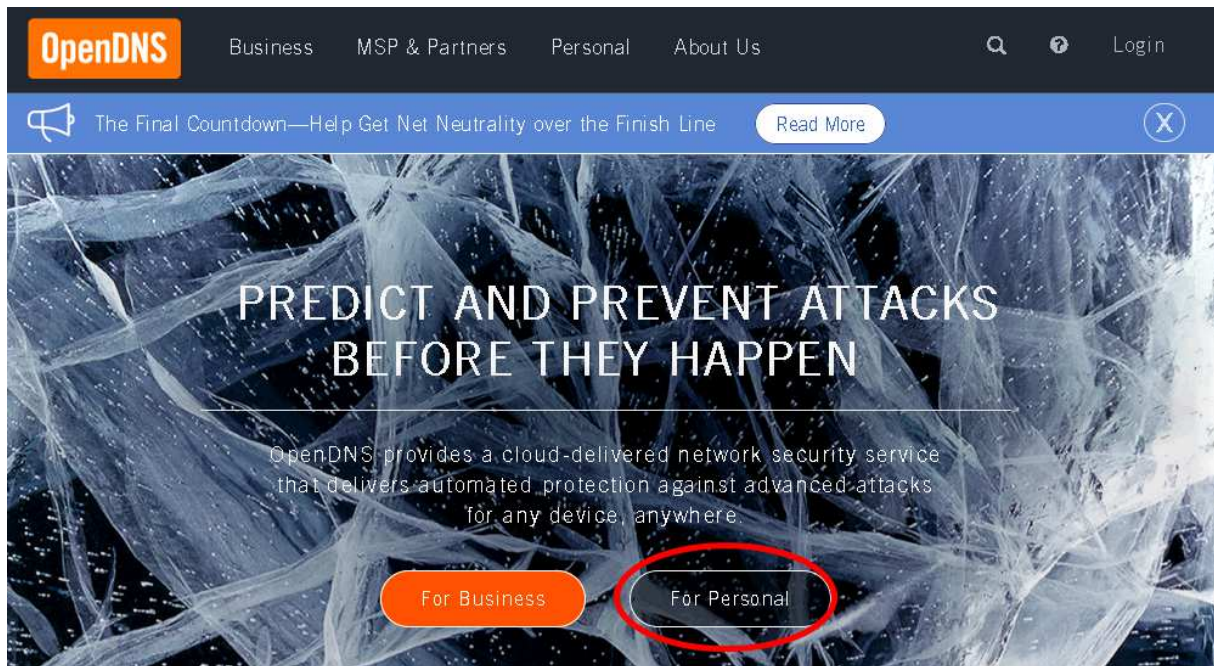
MAC Address	Interface	Uptime	TX Rate	RX Rate	Signal	Noise	SNR	Signal Quality
xx:xx:xx:xx:60:51	ath0	0:10:02	54M	54M	-31	-95	64	<div style="width: 78%; background-color: #007bff; height: 10px;"></div> 78%

DHCP

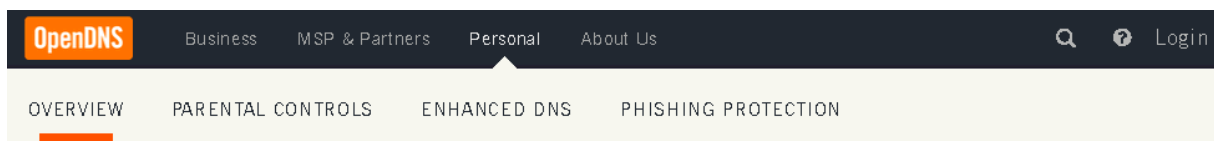
DHCP Clients

Hostname	IP Address	MAC Address	Client Lease Time
Microknoppix	192.168.1.116	xx:xx:xx:xx:60:51	1 day 00:00:00

Nun ist es an der Zeit den zusätzlich benötigten Open DNS-Account anzulegen. Dazu wechseln wir auf die Homepage von Open-DNS unter <https://www.opendns.com> und wählen dort die Auswahl für die private Nutzung ‚Personal‘



... und dort unter ‚PARENTAL CONTROLS‘ den Menüpunkt ‚GET STARTED‘ ...



PERSONAL INTERNET SECURITY

The easiest way to make your Internet safer, faster and more reliable.

PARENTAL CONTROLS

Protect my family from inappropriate websites.

GET STARTED

Covers any device connected to a single home network. Includes web content filters, two weeks of basic reports, [SmartCache](#), and phishing protection powered by [PhishTank](#).

ENHANCED DNS

Switch to the world's fastest and most reliable DNS.

GET STARTED

Simply point your DNS from any number of networks you manage to OpenDNS. No software. No accounts. Includes [SmartCache](#) and phishing protection powered by [PhishTank](#).

... und dort den kostenlosen ‚OPENDNS HOME‘ Account ...

OPENDNS PARENTAL CONTROL SOLUTIONS

Please select a package below that fits your needs.

OPENDNS HOME Free Customizable filtering & security. SIGN UP NOW →	OPENDNS HOME VIP \$19.95/yr Customizable filtering, stats & support.	OPENDNS FAMILY SHIELD Free Pre-configured to block adult content.
---	---	--

OpenDNS Home

Our classic service with customizable filtering and security. Free.

... und nun noch mit der eigenen Emailadresse einen Account anlegen. Danach erhält man eine Bestätigungs-Email, die nach Aktivierung den Account freischaltet.

OpenDNS home

You're just three steps away from a safer, faster, smarter and more reliable Internet — **for free!**

[Learn more about OpenDNS solutions for schools and businesses.](#)

- A faster Internet**
Websites will load faster, and with OpenDNS' 100% up-time, you won't have to worry about unreachable websites and DNS outages from your ISP.
[Learn more](#)
- Robust Web content filtering**
With over 50 customizable filtering categories, OpenDNS Web content filtering keeps parents in control of what websites children visit at home.
[Learn more](#)
- Phishing protection**
OpenDNS blocks phishing websites that try to steal your identity and login information by pretending to be a legitimate website. Surf the Web with confidence.
[Learn more](#)
- You're in good company**
Over 30,000,000 homes, schools, and businesses of all sizes rely on OpenDNS for a better Internet.

[Back](#)

Create a free account

Already have an account? [Sign in.](#)

Email:

Confirm Email:

Password:

Confirm Password:

Where did you hear about OpenDNS?

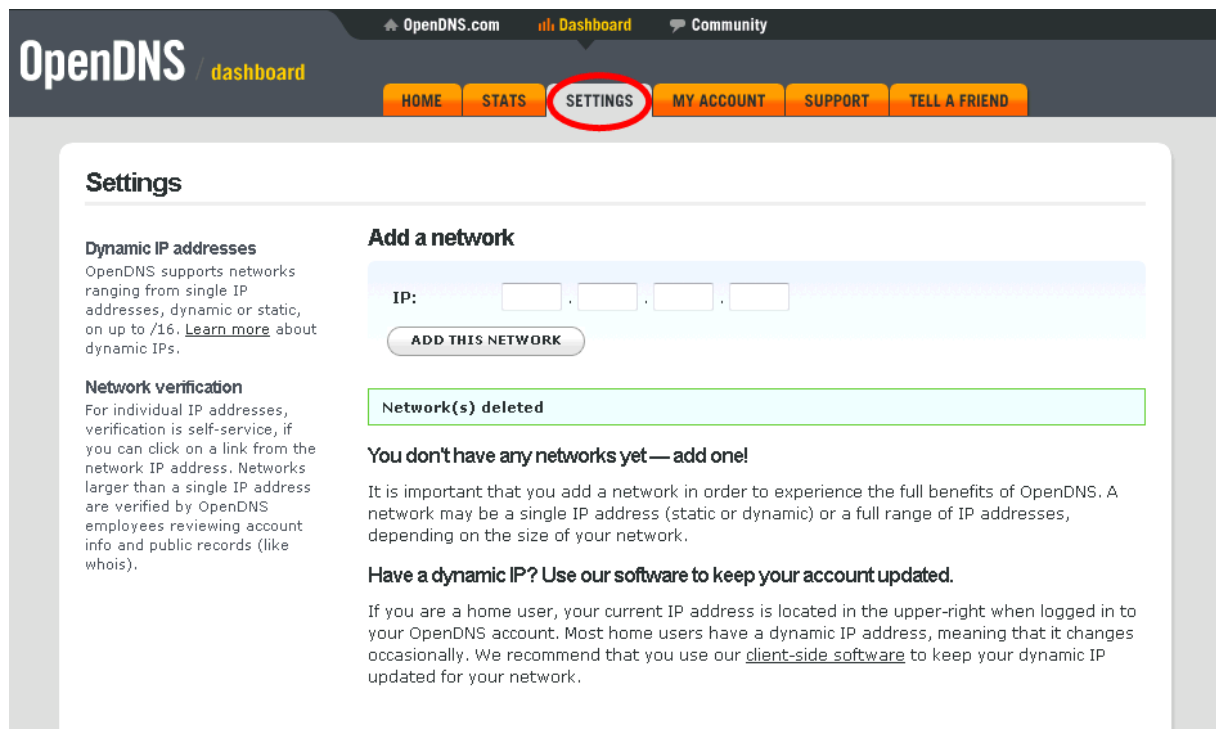
Where will you use this account?

Continue

By creating an account, you are agreeing to the OpenDNS [Terms of Use](#) and [Privacy Policy](#).

Just want free DNS without creating an account? [Go right ahead!](#)

Nun kann man sich unter <https://www.opendns.com> einloggen (Sign-In) und erhält folgende Ansicht o.ä. und dann auf den Menüpunkt ‚SETTINGS‘



The screenshot shows the OpenDNS dashboard with the 'SETTINGS' menu item circled in red. The page content includes:

- Dynamic IP addresses:** OpenDNS supports networks ranging from single IP addresses, dynamic or static, on up to /16. [Learn more](#) about dynamic IPs.
- Network verification:** For individual IP addresses, verification is self-service, if you can click on a link from the network IP address. Networks larger than a single IP address are verified by OpenDNS employees reviewing account info and public records (like whois).
- Add a network:** A form with an IP input field (split into four boxes) and an 'ADD THIS NETWORK' button.
- Network(s) deleted:** A green message box indicating a network has been removed.
- You don't have any networks yet — add one!** A section explaining the importance of adding a network for full OpenDNS benefits.
- Have a dynamic IP? Use our software to keep your account updated.** A section recommending client-side software for dynamic IP addresses.

Nun benötigen wir die momentane IP-Adresse des Internetanschlusses, die wir unter <http://www.dnswatch.info/meine-ip> erfahren können. Bitte einen neuen Tab im Browser öffnen, weil wir den OpenDNS-Account noch benötigen! Die angezeigte IP-Adresse im Open-DNS-Account unter ‚ADD THIS NETWORK‘ eintragen, bestätigen und ggf. einen beliebigen Namen vergeben. Diesen Namen benötigen wir später wieder!

OpenDNS dashboard

HOME STATS SETTINGS MY ACCOUNT SUPPORT TELL A FRIEND

Settings for: home (93.212.95.75) Add/manage networks

Web Content Filtering

Choose your filtering level

- High** Protects against all adult-related sites, illegal activity, social networking sites, video sharing sites, and general time-wasters. 26 categories in this group - [View](#) - [Customize](#)
- Moderate** Protects against all adult-related sites and illegal activity. 13 categories in this group - [View](#) - [Customize](#)
- Low** Protects against pornography. 4 categories in this group - [View](#) - [Customize](#)
- None** Nothing blocked.
- Custom** Choose the categories you want to block.

APPLY

Manage individual domains

If there are domains you want to make sure are always blocked (or always allowed) regardless of the categories blocked above, you can add them below.

Always block

ADD DOMAIN

Web Content Filtering

Security

Customization

Stats and Logs

Advanced Settings

Users can contact you
Your users can contact you directly from the block page if they have questions. It'll show up as an email in your inbox.

Note about DNS forwarding
If you are forwarding requests to OpenDNS, domain blocking may not work properly if the domain's address is in your forwarder's cache.

Check a domain
[Find out](#) whether it would be blocked, and why.

Dort wählen wir für den Anfang ‚High‘ als Filter-Level aus und können bei Bedarf auch noch zusätzliche Webseiten blocken oder auch freigeben.

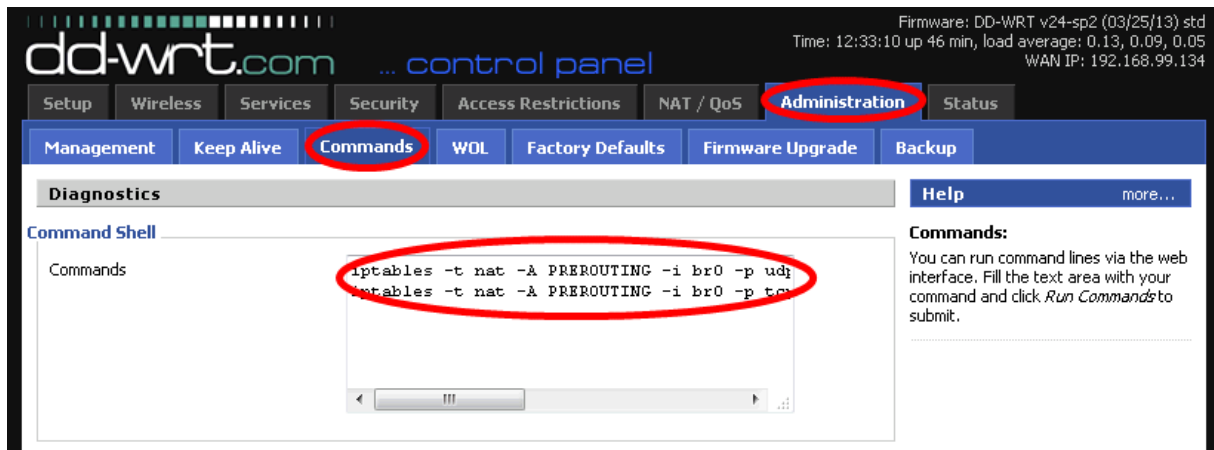
OpenDNS aktualisiert für uns tagesaktuell automatisch diese Filter. Der Trick für unserer kindersicheres WLAN besteht nun darin das wir vor dem Öffnen einer Webseite automatisch bei OpenDNS nachfragen ob diese Seite erlaubt ist oder geblockt werden soll. Das passiert in Zukunft vollautomatisch ohne unser Zutun wenn wir eine Website im Browser über unser kindersicheres WLAN aufrufen wollen. Im OpenDNS-Account werden die Filter nur gepflegt und können individuell angepasst werden.

Aber noch sind wir nicht am Ziel!

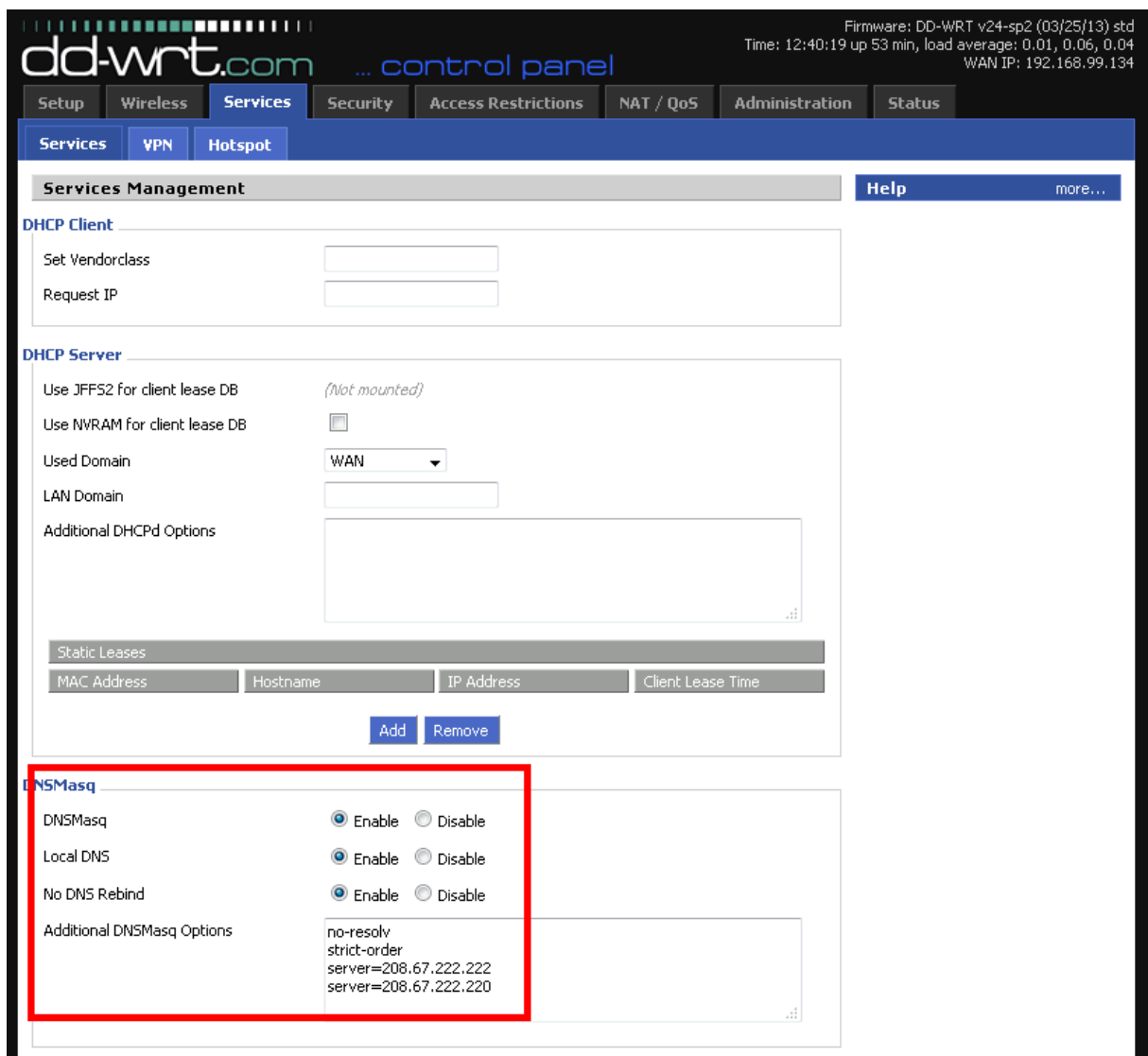
Nun müssen wir wieder auf den Webaccess unseres Gerätes mit der neuen DD-WRT-Firmware und dort unter ‚Administration => Commands‘ folgende Textzeilen über die Zwischenablage in das Fenster kopieren und bestätigen.

```
iptables -t nat -A PREROUTING -i br0 -p udp --dport 53 -j DNAT --to $(nvram get lan_ipaddr)
iptables -t nat -A PREROUTING -i br0 -p tcp --dport 53 -j DNAT --to $(nvram get lan_ipaddr)
```

Diese Textzeilen bewirken später das man nur noch die DNS-Server von OpenDNS benutzen kann und Manipulation verhindert wird.



Unter ‚Services => DNSMasq‘ folgende Einstellungen vornehmen und bestätigen.



Nun wechseln wir zum Menüpunkt ‚Setup => DDNS‘ wo wir unser Gerät mit dem OpenDNS-Account bekanntmachen, den wir kurz zuvor angelegt hatten.

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 12:49:46 up 1:03, load average: 0.00, 0.03, 0.04
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup | Wireless | Services | Security | Access Restrictions | NAT / QoS | Administration | Status

Basic Setup | **DDNS** | MAC Address Clone | Advanced Routing | Networking | EoIP Tunnel

Dynamic Domain Name System (DDNS) Help [more...](#)

DDNS

DDNS Service: Custom

DYNDNS Server: updates.dnsomatic.com

Username:

Password: Unmask

Hostname: hostname=home

URL: /nic/update?

Additional DDNS Options:

Do not use external ip check: Yes No

Options

Force Update Interval: (Default: 10 Days, Range: 1 - 60)

DDNS Service:
DDNS allows you to access your network using domain names instead of IP addresses. The service manager changing IP addresses and updates your domain information dynamically. You must sign up for services through DynDNS.org, freedns.afraid.org, ZoneEdit.com, No-IP.com, or other similar dynamic DNS service.

Force Update Interval:
Type an integer number in the box to set the force update interval (in days). Updates should only be performed automatically when your IP address has changed. Be aware of your DNS provider's update abuse policy to avoid having your hostname or domain blocked.

DDNS Service = Custom

DYNDNS Server = updates.dnsomatic.com

Username = <Emailadresse des OpenDNS-Account>

Password = <Passwort des OpenDNS-Account>

Hostname = hostname=<Name des OpenDNS-Network>

URL = /nic/update?

... sonstige Einstellungen wie Screenshot und bestätigen.

Unter ‚Wireless => Basic Settings‘ folgende Einstellungen vornehmen.

‚klicksafe-wlan‘ ist der zukünftige Name unseres kindersicheren WLAN (und <http://www.klicksafe.de> ist eine interessante Website zu diesem Thema)

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 13:07:36 up 1:20, load average: 0.01, 0.05, 0.04
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup **Wireless** Services Security Access Restrictions NAT / QoS Administration Status

Basic Settings SuperChannel **Wireless Security** MAC Filter WDS

Wireless Physical Interface ath0 [2.4 GHz] Help more...

Physical Interface ath0 - SSID [family-wlan] HWAddr [A0:F3:C1:79:4E:50]

Wireless Mode: AP
Wireless Network Mode: NG-Mixed
Channel Width: Dynamic (20/40 MHz)
Wireless Channel: Auto
Wireless Network Name (SSID): klicksafe-wlan
Wireless SSID Broadcast: Enable Disable
Advanced Settings:

Wireless Network Mode:
If you wish to exclude Wireless-G clients, choose *B-Only* mode. If you would like to disable wireless access, choose *Disable*.
Note : when changing wireless mode, some advanced parameters are susceptible to be modified ("Afterburner", "Basic Rate" or "Frame Burst").

Sensitivity Range:
Adjusts the ACK timing. 0 disables ack timing completely for Broadcom firmwares. On Atheros based firmware, 0 enables auto ACK timing mode.

Virtual Interfaces
Add

Save Apply Settings Cancel Changes

Unter ‚Wireless => Wireless Security‘ folgende Einstellungen vornehmen und ein Passwort für das WLAN unter ‚WPA Shared Key‘ vergeben.

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 13:10:40 up 1:24, load average: 0.09, 0.08, 0.05
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup **Wireless** Services Security Access Restrictions NAT / QoS Administration Status

Basic Settings SuperChannel **Wireless Security** MAC Filter WDS

Wireless Security ath0 Help more...

Physical Interface ath0 SSID [klicksafe-wlan] HWAddr [A0:F3:C1:79:4E:50]

Security Mode: WPA2 Personal Mixed
WPA Algorithms: TKIP
WPA Shared Key: Unmask
Key Renewal Interval (in seconds): 3600 (Default: 3600, Range: 1 - 99999)

Security Mode:
You may choose from Disable, WEP, WPA Personal, WPA Enterprise, or RADIUS. All devices on your network must use the same security mode. With N-Mode you must use WPA2/AES.

Save Apply Settings

Und zuletzt noch die Einstellungen für die Verbindung zum vorhandenen Router (Fritzbox, Speedport, etc.) eingeben und bestätigen.

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 13:12:21 up 1:25, load average: 0.03, 0.06, 0.05
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup | Wireless | Services | Security | Access Restrictions | NAT / QoS | Administration | Status

Basic Setup | **DDNS** | MAC Address Clone | Advanced Routing | Networking | EoIP Tunnel

WAN Setup Help [more...](#)

WAN Connection Type

Connection Type: Automatic Configuration - DHCP

Optional Settings

Router Name: DD-WRT
 Hostname:
 Domain Name:
 MTU: Auto | 1500
 STP: Enable Disable

Network Setup

Router IP

Local IP Address	192	168	1	1
Subnet Mask	255	255	255	0
Gateway	0	0	0	0
Local DNS	0	0	0	0

Network Address Server Settings (DHCP)

DHCP Type: DHCP Server
 DHCP Server: Enable Disable
 Start IP Address: 192.168.1.100
 Maximum DHCP Users: 50
 Client Lease Time: 1440 min
 Static DNS 1: 208.67.222.222
 Static DNS 2: 208.67.220.220
 Static DNS 3: 0.0.0.0
 WINS: 0.0.0.0
 Use DNSMasq for DHCP:
 Use DNSMasq for DNS:
 DHCP-Authoritative:

Automatic Configuration - DHCP:
This setting is most commonly used by cable operators.

Hostname:
Enter the hostname provided by your ISP.

Domain Name:
Enter the domain name provided by your ISP.

Local IP Address:
This is the LAN-side IP address of the router.

Subnet Mask:
This is the subnet mask of the router.

DHCP Server:
Allows the router to manage your IP addresses.

Start IP Address:
The address you would like to start with.

Maximum DHCP Users:
You may limit the number of addresses your router hands out. 0 means only predefined static leases will be handed out.

Time Settings:
Choose the time you are in a summer time (DST) period. The router can use local time or UTC time.

Unter ‚Setup => DDNS => DDNS Status‘ kann man z.B. kontrollieren ob die Verbindung zum OpenDNS-Account funktioniert.

Firmware: DD-WRT v24-sp2 (03/25/13) std
Time: 13:16:47 up 1:30, load average: 0.00, 0.03, 0.04
WAN IP: 192.168.99.134

dd-wrt.com ... control panel

Setup Wireless Services Security Access Restrictions NAT / QoS Administration Status

Basic Setup DDNS MAC Address Clone Advanced Routing Networking EoIP Tunnel

Dynamic Domain Name System (DDNS) Help more...

DDNS

DDNS Service Custom

DYNDNS Server updates.dnsomatic.com

Username

Password Unmask

Hostname hostname=home

URL /nic/update?

Additional DDNS Options

Do not use external ip check Yes No

Options

Force Update Interval 1 (Default: 10 Days, Range: 1 - 60)

DDNS Status

Mon Feb 16 13:16:03 2015: INADYN: Started 'INADYN Advanced version 1.96-ADV' - dynamic DNS updater.
Mon Feb 16 13:16:03 2015: INADYN: IP read from cache file is '93.212.95.75'. No update required.

Save Apply Settings Cancel Changes Auto-Refresh is On



Viel Spass wünscht SuperAdmin.biz!