

## What\_is\_DD-WRT?

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The current [web interface](#) of DD-WRT

**DD-WRT** is a third party developed [firmware](#) released under the terms of the GPL for many IEEE 802.11a/b/g/h/n wireless routers based on a Broadcom or Atheros chip reference design.

The firmware is maintained by BrainSlayer and is hosted at [dd-wrt.com](#). The first versions of DD-WRT were based on the Alchemy Firmware from [Sveasoft Inc](#), which is in turn based on the original [GPL'd](#) Linksys firmware and a number of other open source projects. DD-WRT was created directly from Sveasoft's software decision to start charging for their firmware, closing the door to open source.

At present DD-WRT is available for free, although a different business model is being [drafted](#) by BrainSlayer in order to pay his salary, as this is his full time job.

The new version of DD-WRT (v24) *is a completely new project*. DD-WRT offers many advanced features not found in the OEM firmwares of these devices, or even the firmware available for purchase from Sveasoft. It is also free of the product activation or tracking found in the Sveasoft firmware.

**Note:** Beta firmware, by its very nature, will contain bugs. It is not recommended to install beta firmware on large networks that are used for businesses, etc. However, there is now a bugtracker in place for DD-WRT firmware located here: [DD-WRT Bugtracker trac](#).

Among other features not found in the original Linksys firmware, DD-WRT adds the [Kai Daemon](#) for the [Kai Console Gaming network](#), [WDS wireless bridging/repeating](#) protocol, [Radius Authentication](#) for more secure wireless communication, advanced [Quality of Service](#) controls for bandwidth allocation, and software support for the SD-Card hardware modification.

What does dd stand for in dd-wrt? Sash: its the german car numberplate code for Dresden.

## Contents

- [1 Requirements](#)
- [2 Features](#)
- [3 Supported & Recommended Devices](#)
- [4 Which V24 build do I flash onto my router](#)
- [5 File Versions](#)
  - ◆ [5.1 Atheros Based Devices \(incl. UBNT\)](#)
  - ◆ [5.2 Broadcom Based Devices](#)

## What\_is\_DD-WRT?

- ◇ [5.2.1 V24 pre sp2](#)
  - [K24](#)
    - [5.2.1.1 K2.4](#)
      - [Build](#)
      - [Features](#)
    - [5.2.1.2 Notes](#)
- ◇ [5.2.2 V24 pre sp2](#)
  - [K26](#)
    - [5.2.2.1 K2.6](#)
      - [Build](#)
      - [Features](#)
    - [5.2.2.2 Notes](#)
- ◇ [5.2.3 Special Versions](#)
- ◆ [5.3 Intel IXP Based Devices](#)
- ◆ [5.4 Ralink Based Devices](#)
- ◆ [5.5 x86 Based Devices](#)

## Requirements

- A computer (Windows, Linux, Mac, whatever)
- A broadband internet connection (DSL, Cable, or similar)
- A Linksys WRT54G/GL/GS router or other supported router.
- The DD-WRT firmware image from [The DD-WRT Project](#)
- Follow the instructions under [Installation](#) to install the new firmware on your router.

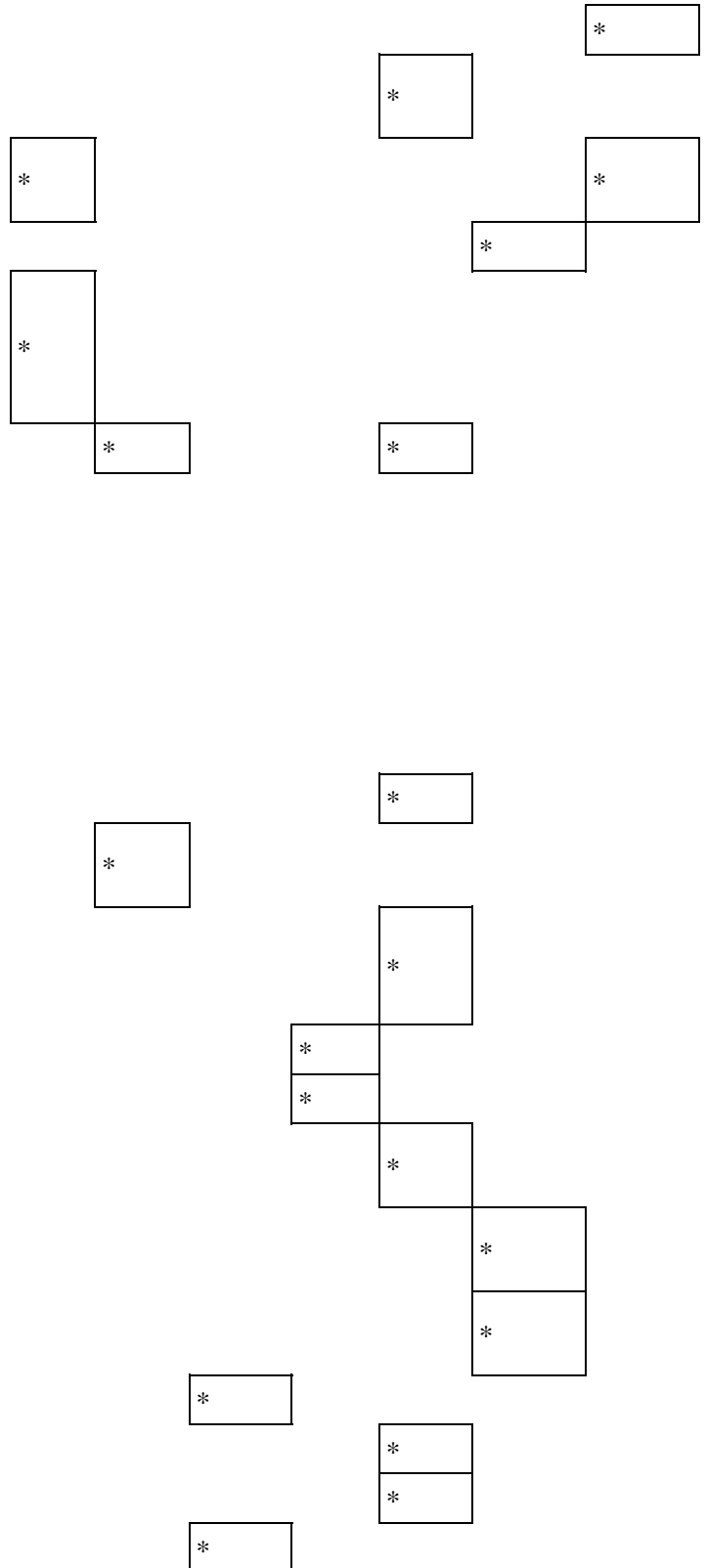
## Features

A list of new features, updates and bugfixes can be found in the [Changelog](#). For a detailed view of code diffs see the SVN revisions at the [timeline](#).

Feature v \ Categories->	<a href="#">Lan</a>	<a href="#">Wlan</a>	<a href="#">Wan</a>	<a href="#">DNS</a>	<a href="#">Man- age- ment</a>	<a href="#">Moni- toring</a>	<a href="#">NAT</a>	<a href="#">Serv- ices</a>	<a href="#">Traffic mode- ration incl. QoS</a>	<a href="#">Traffic redir- ection</a>
13 languages					*					
<a href="#">802.1x Extensible Authentication Protocol (EAP)</a>		*								
<a href="#">802.1x Extensible Authentication Protocol (EAP)</a>		*								
<a href="#">Access Restrictions</a>									*	
<a href="#">Ad hoc</a>		*								
<a href="#">Afterburner</a>		*								

What\_is\_DD-WRT?

<u>Client Isolation Mode</u>		*
<u>Client Mode</u> (supports multiple connected clients)		*
<u>DHCP Forwarder</u> ( <u>udhcp</u> )	*	*
<u>DHCP Server</u> ( <u>udhcp</u> or <u>Dnsmasq</u> )	*	*
<u>DNS Forwarder</u> ( <u>Dnsmasq</u> )	*	*
<u>DMZ</u>	*	*
<u>Dynamic DNS</u> ( <u>DynDNS</u> , <u>easyDNS</u> , <u>FreeDNS</u> , <u>TZO</u> , <u>ZoneEdit</u> , custom, and others)		
<u>FreeRADIUS Server</u>		*
<u>Hotspot Portal</u> ( <u>Sputnik Agent</u> , <u>Chillispot</u> )		*
<u>IPv6</u>		
<u>JFFS2</u> ( <u>JFFS2</u> )		
<u>MMC/SD Card Support</u> (hardware modification required)		
<u>NTP</u>	*	*
<u>ntop Remote Statistic</u> ( <u>ntop</u> )		
<u>OpenVPN Client &amp; Server</u> (only in -vpn build of the firmware)		
<u>Port Triggering</u>		
<u>Port Forwarding</u>		
<u>PPTP VPN Server &amp; Client</u>		
<u>QoS Bandwidth Management</u>		
<u>QoS L7 Packet Classifier</u> ( <u>I7-filter</u> )		
<u>RFlow</u>		
<u>Routing</u> ( <u>BIRD</u> )		
<u>Samba FS Automount</u>		
<u>Syslog</u>		



What\_is\_DD-WRT?

<u>Rx Antenna</u>	*			
<u>Tx Antenna</u>	*			
Show Status of Wireless Clients and WDS with System Uptime/Processor Utilization	*			*
<u>Site Survey</u>	*			*
<u>SNMP</u>			*	*
<u>SSH server &amp; client (dropbear)</u>			*	*
Startup, Firewall, and Shutdown scripts ( <u>startup script</u> )				*
<u>Static DHCP</u>	*	*		*
Style (Changeable GUI; v.23)			*	
Supports New Devices (WRT54G V3, V3.1, V4, V5 and WRT54GS V2.1, V3, V4)			*	
<u>Telnet server &amp; client</u>			*	*
Transmit Power Adjustment (0-251mW, default is 28mW, 100mW is safe)		*		
<u>UPnP</u>	*	*		*
<u>USB</u>				
<u>VLAN</u>	*	*	*	*
<u>WOL (Wake On Lan) (WOL)</u>				*
<u>WDS Connection Watchdog</u>	*			
<u>WDS Repeater Mode</u>	*			
<u>Wireless MAC Address Cloning</u>			*	
<u>Wireless MAC Filter</u>	*			*
<u>WMM (Wi-Fi MultiMedia)</u>	*			*
WPA over WDS	*			
WPA/TKIP with AES	*			

WPA2		*	
Xbox Kaid ( <u>Kai Engine</u> )	*	*	*

## Supported & Recommended Devices

For a list of supported devices, check [Supported Devices](#). For a list of recommended devices see [Firmware FAQ#Which router should I buy?](#).

## Which V24 build do I flash onto my router

[NOTE] - ALWAYS do a **Hard reset or 30/30/30** on the router BEFORE and AFTER flashing a firmware build.

[NOTE] - Do not use Backup/Restore anytime you change the firmware build even from one svn to another. Backup/Restore should only be used when the exact same build (same svn) is reloaded or if a hard reset is done and you wish to restore the configuration on that same build.

Check [Supported Devices](#) to see which chipset your router has and whether any special flashing procedures are required.

First check your w10\_corerev by issuing the following command in telnet.  
 nvram get w10\_corerev

The following Broadcom chipsets require the VINT builds:

- Any older routers using Broadcom 4702/4710 chipsets (125MHz) and have mini-PCI cards w10\_corerev < 5 (such as Belkin F5D7130-4 v1000 - v1112)
- Linksys WRT54G v1
- Linksys WAP54G v1
- Sitecom WL-105b

The following Broadcom chipsets require the normal builds (sometimes referred to as NEWD):

- Asus WL-520GU
- Buffalo WHR-G125
- Linksys WRT54G v8.0-8.2
- Linksys WRT54GS v7.0
- All newer routers using Broadcom 4704, 4785, 5354, 5365 chipsets

The following chipsets can run both the normal (recommended- sometimes referred to as NEWD) and VINT builds.

- Buffalo WHR-HP-G54, WHR-G54S

## What\_is\_DD-WRT?

- Linksys WRT54G v4.0
- Linksys WRT54GL 1.0 & 1.1
- All routers using Broadcom 5352 chipset
- All routers using Broadcom 4712 chipset (BCM4712) with w10\_corerev 5 or higher

The normal build (sometimes referred to as NEWD) uses a new wireless driver where the VINT (vintage build) uses an older one.

## File Versions

Different versions of the firmware have different features. The tables below attempt to outline the features of each version but sometimes the features of a specific version are changed. You can check the config files on the SVN server to verify exactly what features are in each specific version for official Brainslayer builds, but the config files for Eko's unofficial versions are not published.

## Atheros Based Devices (incl. UBNT)

Atheros based devices typically only have one version of the firmware available per model. The feature set in Atheros builds are generally limited by the amount of flash memory that a unit has. So basically, Atheros 4MB flash units have features somewhat similar to a Broadcom K2.6 mini version while 8MB Atheros flash units have features more similar to a Broadcom K2.6 BIG version, but the features will vary. Atheros builds are still pre-baked and specific to its unit, so features in one unit's version may slightly differ from another unit's version. For this devices you need to buy an activation at the dd-wrt Shop [1].

## Broadcom Based Devices

Broadcom based devices have several different versions available to choose from. Consult **Note 4** in the Peacock Announcement from the Broadcom forum for information about which versions can run on your hardware.

### V24\_pre\_sp2 K24

This consolidated chart is a WIP. If you spot something wrong or needed to be added, pm me. DarkShadow  
Need verification of pound and tcpdump

#### K2.4 Build Features

V24\_pre\_sp2 K24 build features

Micro (1) Micro Plus (2)(7) Micro Plus ssh (2)(7) Mini (1) Mini Hotspot Kaid (2) Mini USB (2) USB  
Generic (1) Mini USB FTP (2) Nokaid (1) Open VPN JFFS Small (2) STD (1) STD NoKaid (2) STD NoKaid  
No Hotspot NoStor (2) STD NoKaid USB (2) VOIP (1) VPN (1)(3) Big (2)(4) Mega (1)(4) Access  
Restrictions AnchorFree Asterisk

## What\_is\_DD-WRT?

Bandwidth Monitoring  
 Connection Warning Notifier  
 EoIP Support  
 ext3 Support  
 ext2 Support  
 FreeRADIUS Server  
 Hotspot System  
 HTTP Redirect  
 HTTPS Support for Web  
 IPv6 (5)  
 JFFS2 (6)  
 kaid  
 MMC/SD Support  
 NoCat  
 NTFS Support  
 OpenVPN  
 Pound  
 PPTP Client/PPTP Server  
 ProFTPD  
 Micro (1) Micro Plus (2)(7) Micro Plus ssh (2)(7) Mini (1) Mini Hotspot Kaid (2) Mini USB (2) USB Generic (1) Mini USB FTP (2) Nokaid (1) Open VPN JFFS Small (2) STD (1) STD NoKaid (2) STD NoKaid No Hotspot NoStor (2) STD NoKaid USB (2) VOIP (1) VPN (1)(3) Big (2)(4) Mega (1)(4) QoS  
 radvd  
 Repeater  
 RFlow  
 Samba/CIFS client  
 Security Log  
 SFTP  
 SIPatH/Milkfish  
 SMTP  
 Redirect  
 SNMP  
 SPI Firewall/Iptables  
 Sputnik  
 SSH  
 Syslogd  
 tcpdump  
 Telnet  
 Tx power adjust  
 UPnP  
 USB  
 VPNC  
 Wake On LAN  
 Wifidog  
 WPA/WPA2 Per/Ent  
 Wiviz

### Notes

- (1) Official dd-wrt builds by Brainslayer
- (2) Eko specialized **Broadcom Only** Builds
- (3) Smaller VPN JFFS builds are available for 4MB units: [downloads/others/eko](#)
- (4) Only on DD-WRT v24 (8MB+ flash required)
- (5) Apparently, IPv6-related features **DO NOT** work by default in DD-WRT v24. See [IPv6 on v24](#).
- (6) Not available on VPN-builds for v24sp1 (see [prerequisites for JFFS](#)).
- (7) CFE Compressor needed to run. See (<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=38844>).

The files for v24 contain six versions:

filename	description
dd-wrt.v24_<type>_asus.trx	<b>Web interface</b> version for flashing. See <a href="#">Flash Your Asus WL-500G Deluxe</a>
dd-wrt.v24_<type>_generic.bin	Generic version for flashing via <b>web interface</b> on all supported devices (including Linksys WRT54G/GL/GS) and for flashing <a href="#">Siemens SE505</a> with boot tftp on 192.168.2.1
dd-wrt.v24_<type>_wrt54g.bin	<b>tftp</b> versions for WRT54G. You CAN use this to flash via web interface but do so only AFTER you have done so using the mini version. These versions were just made specifically for TFTPing to those routers. (v5/v6 note: Since the WRT54G/GS v5-v6 uses a modified

## What\_is\_DD-WRT?

	WAP54Gv3 once made 'linux ready', it will not accept these standard WRT54G/GS firmwares. You must use the 'generic' build for TFTPing to these units).
dd-wrt.v24_<type>_wrt54gs.bin	<b>tftp</b> versions for WRT54GS. You CAN use this to flash via web interface but do so only AFTER you have done so using the mini version. These versions were just made specifically for TFTPing to those routers.
dd-wrt.v24_<type>_wrt54gsv4.bin	<b>tftp</b> versions for WRTGSv4. You CAN use this to flash via web interface but do so only AFTER you have done so using the mini version. These versions were just made specifically for TFTPing to those routers.
dd-wrt.v24_<type>_wrtsl54gs.bin	<b>tftp</b> versions for WRTSL54GS. You CAN use this to flash via web interface but do so only AFTER you have done so using the mini version. These versions were just made specifically for TFTPing to those routers.
dd-wrt.v24_<type>_moto.trx	For initial <u>Flash Your Motorola WR850G (Micro and Mini builds ONLY)</u>

where <type> is a placeholder for mini, std, voip, etc. For upgrading from the original Linksys firmware, please use the **mini** version first and flash it from the **web interface**. After this first flash you can then upgrade to any distribution of your choice.

Note eko's builds are for Broadcom only (both K24 and K26).

## V24\_pre\_sp2 K26

**WARNING:** Do not use the K2.6 builds unless you are certain your device can support it! It will brick it! [Forum thread about K26 build supported broadcom based router List](#)

## K2.6 Build Features

### K2.6 Build Features

Mini Mini Hotspot Mini USB Mini USB NAS OpenVPN OpenVPN Small STD NoKaid Small STD USB  
 NAS VOIP VOIP Small Big Mega (Giga) [Access Restrictions](#) [AnchorFree](#)  
 ''' [Asterisk](#) Bandwidth Monitoring [Chillispot](#)  
 Connection Warning Notifier [Dynamic DNS](#)  
 EoIP Support [ext2](#) Support [ext3](#) Support  
 Hotspot System HTTP Redirect HTTPS Support for Web  
 Management [IPv6](#) [JFFS2](#) [kaid](#)  
 MMC/[SD](#) Support [NoCat](#) [NTFS](#) Support  
[OpenVPN](#) [Pound](#) [PPTP Client / PPTP Server](#)  
[ProFTPD](#) Mini Mini Hotspot Mini USB Mini USB NAS OpenVPN OpenVPN Small  
 STD NoKaid Small STD USB NAS VOIP VOIP Small Big Mega (Giga) [QoS](#)  
[radvd](#) [Repeater](#) [RFlow](#) [Samba/CIFS](#)



## What\_is\_DD-WRT?

client Security Log SFTP  
SIPatH/Milkfish SMTP Redirect SNMP  
SPI Firewall/Iptables Sputnik SSH  
Syslogd tcpdump Telnet Tx power  
adjust UPnP Wifidog USB VPNC  
Wake On LAN WPA/WPA2 Per/Ent  
Wiviz

### Notes

K26 builds do not have MMC/SD support yet.

## Special Versions



Screenshot of a QoS version

Currently brainslayer offers a special version of DD-WRT with extended QoS capabilities:

- set maximum bandwidth available per netmask/MAC address (v.24-SP1: even for different vlans)
- set a default rule for any unconfigured netmask/MAC address

This version is always based on the current sources and atm only available for kernel 2.4 based units. The version is available from the DD-WRT [Shop](#).

Updates for this special firmware version are provided in the special [Customer Downloads & Updates](#) forum.

Firmware releases customized to your corporate design are also available.

## Intel IXP Based Devices

## Ralink Based Devices

Ralink based devices typically only have one version of the firmware available per model.

## **x86 Based Devices**