

DD-WRT

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Overview

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Supported Hardware

- The DD-WRT website has an interactive “Router Database” that will instantly tell you if your router is supported
 - <http://www.dd-wrt.com/site/support/router-database>
- The wiki gives additional information user-contributed notes that pertain to your router
 - <http://www.dd-wrt.com/wiki/index.php/WRT54GS>

Upgrading Firmware

- Ensure your router is supported.
 - Find appropriate links on the DD-WRT wiki and follow specific instructions that pertain to your router.
- Download the appropriate version of DD-WRT.
- Ensure you are “hard wired” to your router
- Use Internet Explorer (suggested, not required)
- Reset router to factory defaults
 - Do a Hard reset (30/30/30)
- Upload the firmware
- TFTP or Command Line flashing

Bricking is bad

- Follow all precautions on the DD-WRT wiki
- Do Hard reset before AND after flashing firmware
- Go through directions on DD-WRT website
 - <http://dd-wrt.com/phpBB2/viewtopic.php?t=51486>
 - [http://dd-wrt.com/wiki/index.php/Recover from a Bad Flash](http://dd-wrt.com/wiki/index.php/Recover_from_a_Bad_Flash)
- Recover with TFTP or JTAG cable
- Extreme Last Resort: Physical Chip Flash
- If the above tips don't help you, Congratulations!
You have a paper weight!

Going Back

- Not much information about going back to original router firmware
 - Download original Linksys firmware and “upgrade” it
- If you have a WRT54GS, you must resort to older firmware
 - http://bitsum.com/openwiking/owbase/ow.asp?WRT54G5_CFE

Features

- A DD-WRT router adds more features and capabilities to your router
- The following are some features the native Linksys firmware does not offer
 - Static IPs
 - Bridging/Repeater
 - SSH / Scripting / Cron Jobs
 - Wake On LAN

Static IPs

- DD-WRT allows for static IPs to be set based on the MAC address of the connecting computer
 - DHCP to obtain IP address
 - Hostnames associated with it

Bridging / Repeater

- If you have two or more DD-WRT routers in your home network, you can bridge them together
 - The primary router will run the DHCP server
 - The secondary router will be effectively be a repeater
- The repeater runs on the same subnet, so that if you move elsewhere in the house, you are still connected
- http://dd-wrt.com/wiki/index.php/Wireless_Bridge
- http://dd-wrt.com/wiki/index.php/Universal_Wireless_Repeater

SSH / Scripting / Cron Jobs

- SSH
 - Configure router without the use of the web GUI
 - SSH Authorized Keys to gain access
- Scripting
 - Implement scripts to perform tasks or report status
 - http://dd-wrt.com/wiki/index.php/Startup_Scripts
 - http://dd-wrt.com/wiki/index.php/Useful_Scripts
- Cron Jobs
 - Implement scheduling for your scripts
 - Ensure time/date for the job is the same as the router

Wake On LAN

- Not all computer support this feature
- Save energy by not running your computer 24/7
- Implement safeguards when your server overheats

Live Demo

Questions?
