View on GitHub

Raspberry Pi - Wifi Router Project

The Raspbian Hard-Float Wireless Router

Raspberry-Wifi-Router:

Raspberry WiFi Router

- Home
- Configuration
- Advanced
- Maintenance
- Logs
- Log out

General

The Raspberry Wireless Router Project can be found on github:
https://github.com/ronnyvdbr/ronnyvdbr.github.io

Current Timezone: Europe/Brussels

Current Date/Time: 08/05/2015 - 20:50:25

Software Version: V1.2

Operation Mode

The Raspberry Pi is currently functioning as: Access Point

LAN Connection

Connection Type: Dhcp Client

Cable status: up

Mac Address: 20:11:22:33:44:55

IP Address: 192.168.20.135

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.20.1

Primary DNS Server: 195.130.131.130

Secondary DNS Server: 195.130.130.2

WiFi Connection

Wireless Radio: up

SSID: RaspberryWAP

Wireless Channel: 9

Wireless Mode: b

Wireless Security: Wpa/Wpa2

Configured Country: BE

Base Station ID: 00:c0:ca:77:05:74

All of the Raspberry Pi general network settings are displayed on this page. Also the revision of the software is displayed on this page. If the device is running in Router operation mode, this page will also display an IP address separately for the Wifi network.

Welcome to the Raspberry-Wifi-Router project.

If anyone cares to donate a Raspberry Pi 3 for further development, please ctc me at vandenbroeckronny at gmail dot com.

This project aims to build a descent Wifi Router out of a Raspberry Pi which is easily configurable via a dynamic web interface designed in HTML/PHP. This project came to life out of personal interest in hardware embedded design and software design in linux with PHP. I'm putting my desing onto Github to share my work with the open source community, hoping to get some people interested in this project to contribute, the ultimate goal is to create a fantastic web gui for a cheap Raspberry Pi used as Wifi Router.

For the people that are only interested in trying the router, you can download the latest version of the ssd card image below:

- Raspberry Pi Wifi Router v1.5.1 - from Dropbox
- Raspberry Pi Wifi Router v1.5.1 - from Google Drive
- Raspberry Pi Wifi Router v1.5.1 - from OneDrive

The default configuration is set to obtain an IP address via DHCP from the wired ethernet connection.
To access the web interface, enter 'admin' as username and 'raspberry' as password.
To login via SSH, login with username 'pi' and password 'raspberry', and use sudo for root access.

Features:
Bridge and Router with NAT functionality
Static/Dynamic addressing
DHCP, DNS Proxy, NTP,
hostapd wifi module
802.11 B/G/N depending on your wifi adapter
Wi-Fi Protected Access® (WPA/WPA2—PSK) and WEP
Captive Portal (coovachilli)

Still to be implemented:
Port forwarding (iptables).
Network Filter (firewall).
Web Filter (privoxy).
Proxy (squid, squidguard).
Advanced wireless configuration (hostapd).

For the ones amongst us that are not scared of entering the matrix, here's how you assemble the ssd yourself:

Getting started:

Before getting started, make sure you have the right equipment at hand:

- Raspberry Pi - Model B - other models might work but are untested.
- SD card from minimal 2 Gb.
- A wifi adapter which has a compatible cfg80211 driver. Go to https://wireless.wiki.kernel.org/en/users/drivers Search for a usb wifi driver which is cfg80211 compatible, and is capable of doing AP and PHY mode B/G/N. Based on that driver, look for a physical device which will work with that driver. This project was developed and tested with an Alfa Awus036NEH Usb Wireless Adapter: http://www.alfa.com.tw/products_show.php?pc=34&ps=22

Preparing your Raspberry Pi:

- This project is built on top of a foundation Raspbian Jessie Lite image which can be downloaded from the foundation website at https://www.raspberrypi.org/downloads/raspbian/
- Download your copy of the image and write this to SD card with win32diskimager, boot it up in your Raspberry Pi.
- Login to your Raspberry Pi with username 'pi' and password 'raspberry'
- Follow the instructions in the github installer to get everything installed.