Latch

Latch OpenWRT Manual

OpenWrt

Wireless Freedom

Prerequisites

- Installation of OpenWRT previously configured with internet access and administrator password
    - Although this plugin was created to work in OpenWRT, this manual wont explain the installation or configuration of OpenWRT because it depends of each router.
    - We will only describe how to install on “Homestation ADB PDG A4001N” router
    - The configuration of OpenWRT to get internet depends of the topology of each network

- One account created at “latch.elevenpaths.com” and one application with the name you want. For instance: “OpenWRT WiFi Security”.
    - You don´t need configure anything in the application, only save the Application id and Secret key for configuring the plugin

- Installation Package of plugin for your router
    - The installation package used in this manual was compiled for routers with Broadcom BCM63xx SoC family, and will be installed in the router “Home Station ADB PDG A4001N” from Movistar.
    - If you need the installation package for other router you can download the source code from github and compile it for other SoC family.

- Any SSH Connection software to install the plugin.
    - In this manual we will use Putty.

Preparing OpenWRT

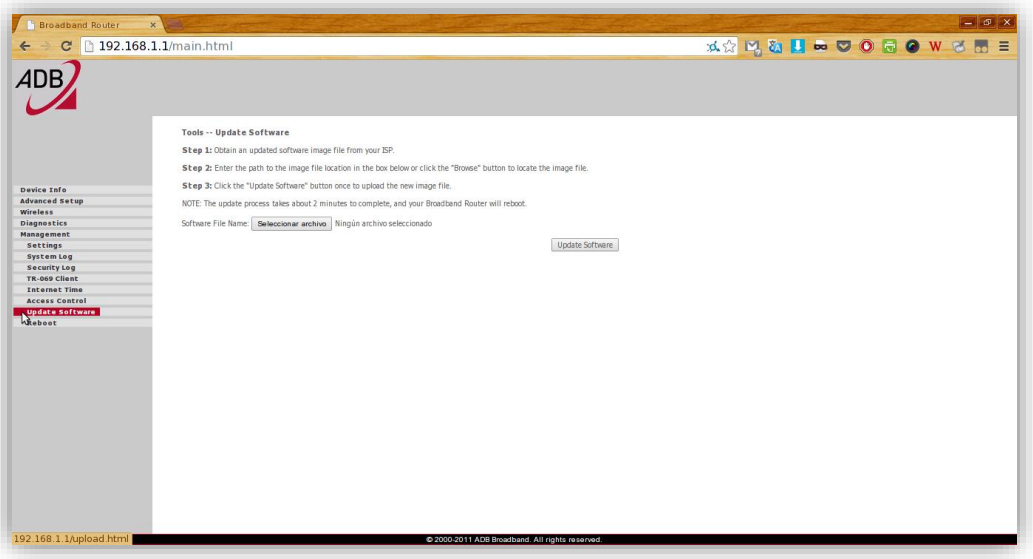
First of all you need a router compatible with OpenWRT and the correct firmware version to install it. Also you need know how to install it because the installation of OpenWRT depends of the router.

In this case we will use a “Home Station ADB PDG A4001N” router from Movistar.

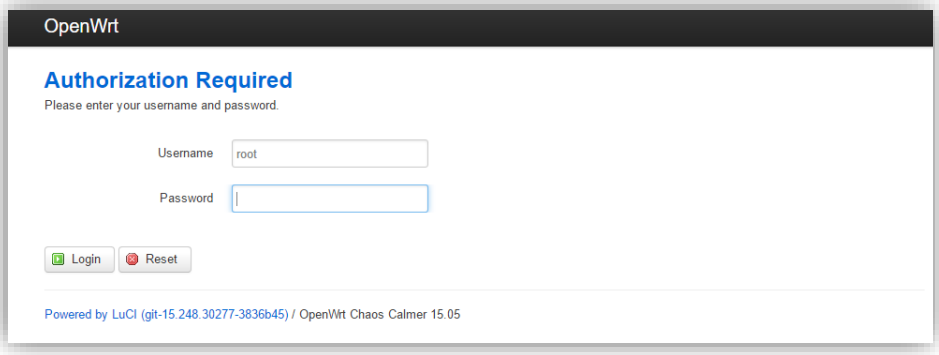
It uses a Broadcom BCM6328 SoC, so we will need a firmware of OpenWRT compatible - “brcm63xx” in this case. You can get the correct image for this router from my GitHub.

The installation of OpenWRT is really simple in this model. You only need update the firmware like if you do with the oficial firmware.

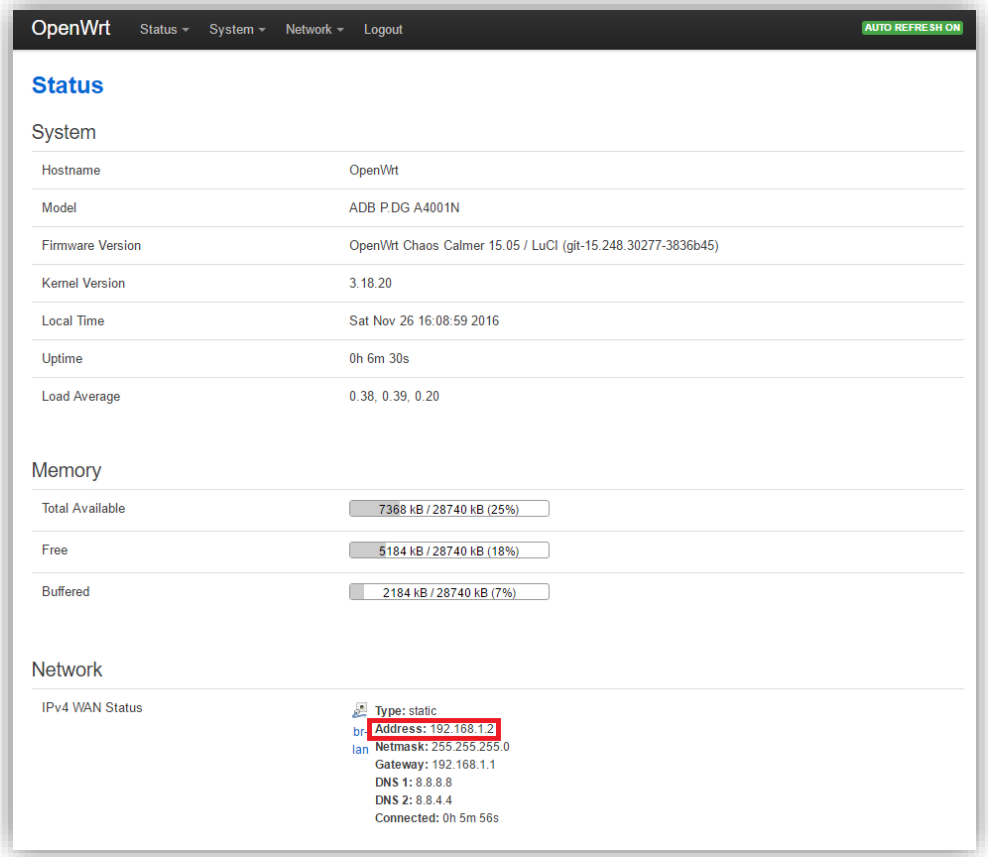
1. Access to the administration web page at: http://192.168.1.1/main.html
2. The system will ask you for a user and password. You should enter 1234 in both input if you didnt change it before.
3. On the left menu select “Management” and click on “Update Software”
4. Click on search button and select the OpenWRT firmware you downloaded before, click to “Update Software” and wait around 1-3 minutes. After the restart you should see the interface of OpenWRT.



Plugin Installation



OpenWRT Login Interface



Once we have the OpenWRT installed and configured we can connect with it using any SSH software we selected before. In our case we will use Putty.

Remember the IP address that you configured to Access to the router administration interface and the password to adminístrate it because we will need the both to connect using SSH.

The plugin installation is really easy, you only need connect to router using Putty or other SSH connection software, send the installation package to the router using SCP commands and execute it.

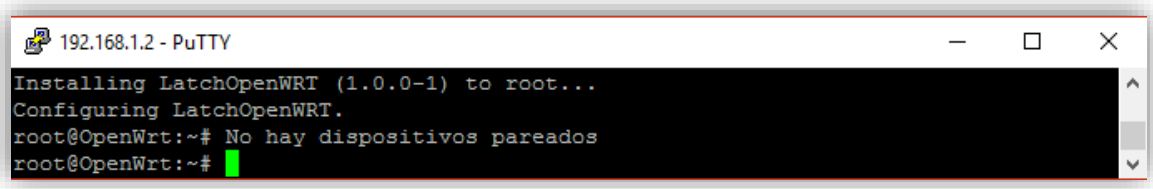
```
scp <package name> root@RouterIP:/

opkg update ; opkg install <name package>
```

Where the “package name” is the name of your installation package and RouterIP is the ip used to administer the router.

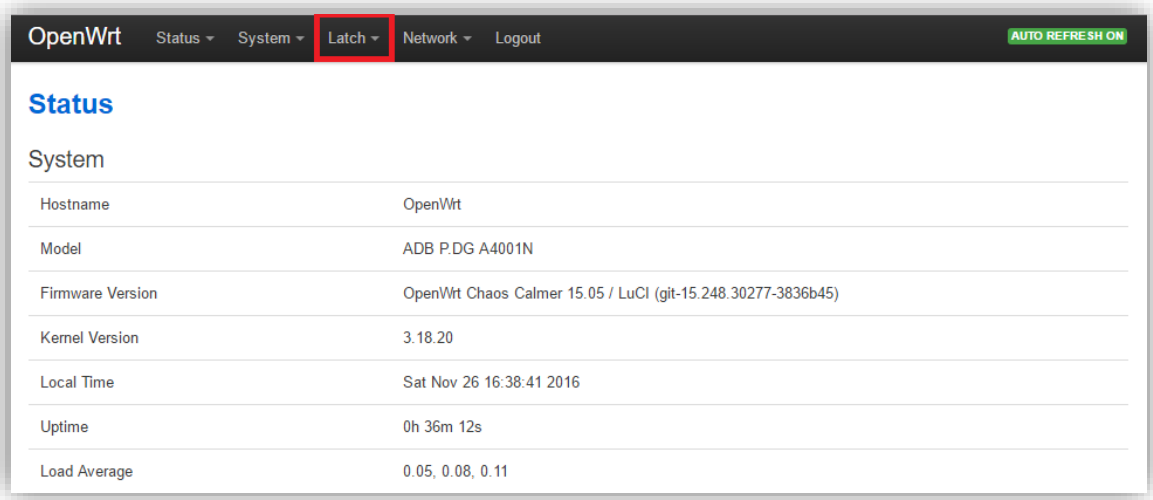
In my case i have the installation package for this router on my Github, so i can install the plugin without download the package previously and do all the job using the next command:

```
opkg update ; opkg install openssl-util ; opkg install
http://github.com/JCameroMartin/LatchOpenWRT/raw/master/LatchOpenWRT_1.0.
0-1_brcm63xx.ipk
```

This process will take a while. You will know that the installation has finished when you see something like the next window.

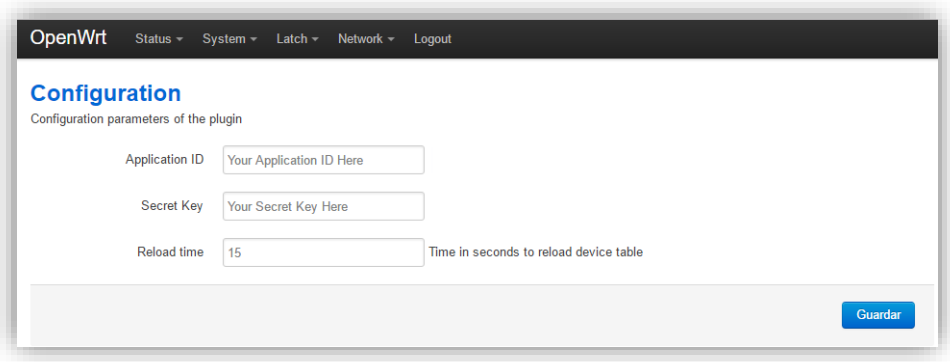


Now you can go to the OpenWRT Administration Web and see that the plugin was succesfully installed.



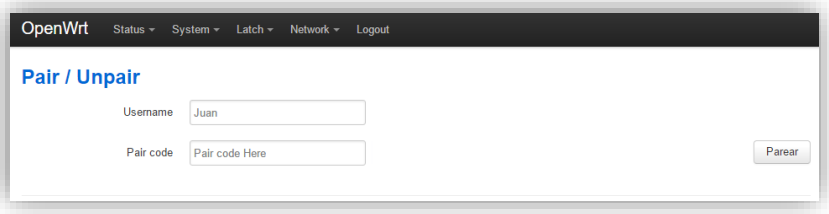
Configuration

The configuration of the plugin is really easy. You need go to “Latch – Configuration” to insert your application id and secret key.

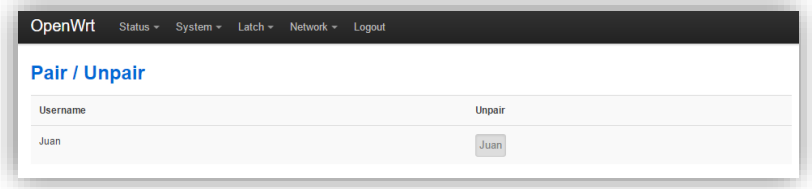


After save the configuration you need to pair a control device to administrate the plugin. You need go to “Latch – Pair/Unpair” to do it.

It is really simple, only need put a name to recognise the control device and use the pair code provided for the Latch Application previously installed in the control device.



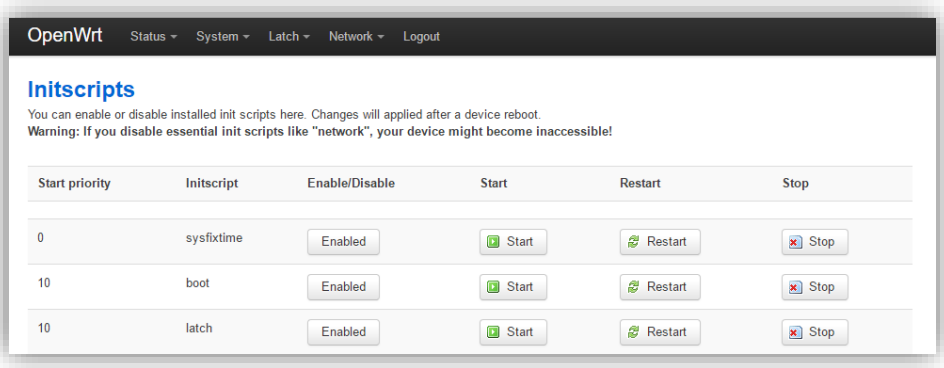
After 30 seconds this window will be reloaded and if the control device was succesfully paired you will see a new window like this:



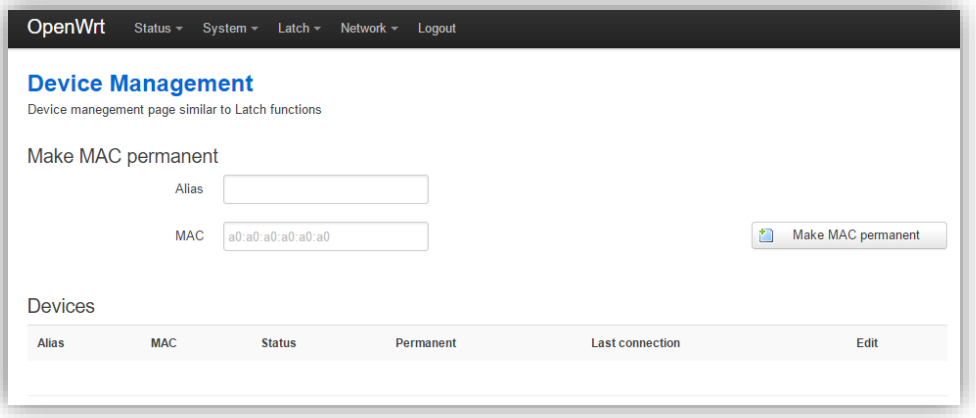
You can unpair the control device clicking in the button with it name to pair a new control device if you want.

At this step you have finished to install and configure the plugin. To start the service you only need go to “System – Startup”, find the “latch” service and click in Start or Restart button.

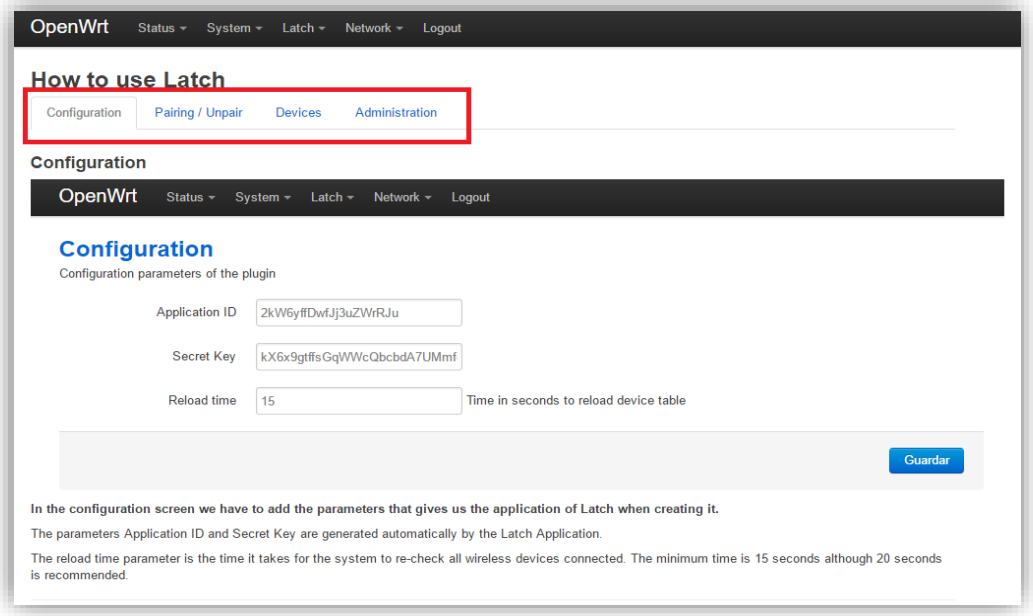
NOTE: You should restart the service if you unpair the control device and pair a new one, or if you change any configuration parameter.



Although you can close the administration web page and the plugin will do all the work for you, you can add a Permanent MAC or edit some information of this permanent devices in “Latch – Devices”



Advanced information can be found in the plugin help. See it at “Latch – Help”

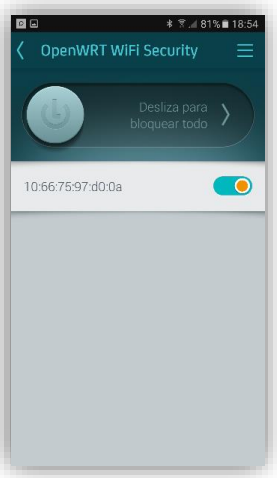


Using the plugin

Once we have started the plugin service it will start the control of Wireless devices trying to connect to our router.

If one wireless device try to connect to our router, the control device will show us a alert and will block it. We have some time, the "Reload time" (The time configured in the administration web page), to give, or not, permissions to access at our network.

After this time the service will reload the devices table and if it continue connected and blocked it will alert us and expulse it from our network.



The device will continue blocked for the “Reload time” and if the device continue trying to connect before the reload time it will be continuesly expulsed.

If the device dont try to connect and the reload time finalize, the device is deleted from the control device.

As you can see you have 2 different alerts. The first one is used to alert that a device not connected now are trying to connect. The second one is used to alert that a device previously blocked continue trying to connect.

Obviously you can silence a alert for 1 device if it not stop try connect and ignore it.

This give you a warranty than you have a smart, fast and easy administration. Managing all wireless connections from your control device

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