

Modem manipulation report.

Modifying default configurations in the modem, making it secure and more useful.



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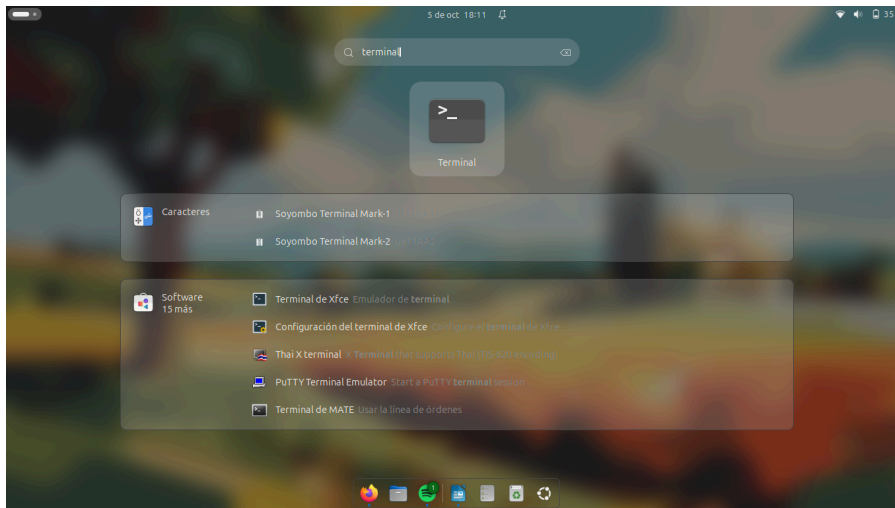
Conexiones de redes WAN

INTRODUCTION

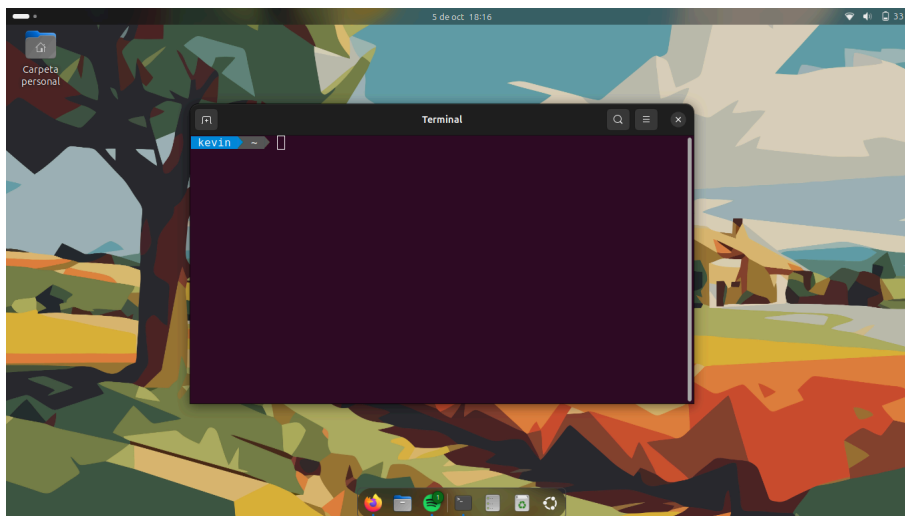
First of all, we need to identify what we are going to do, so let's take some time addressing our goal today: check all the configurations in our house modem, customize the SSID, change the access password and set extra security for our network.

SO LET'S BEGIN:

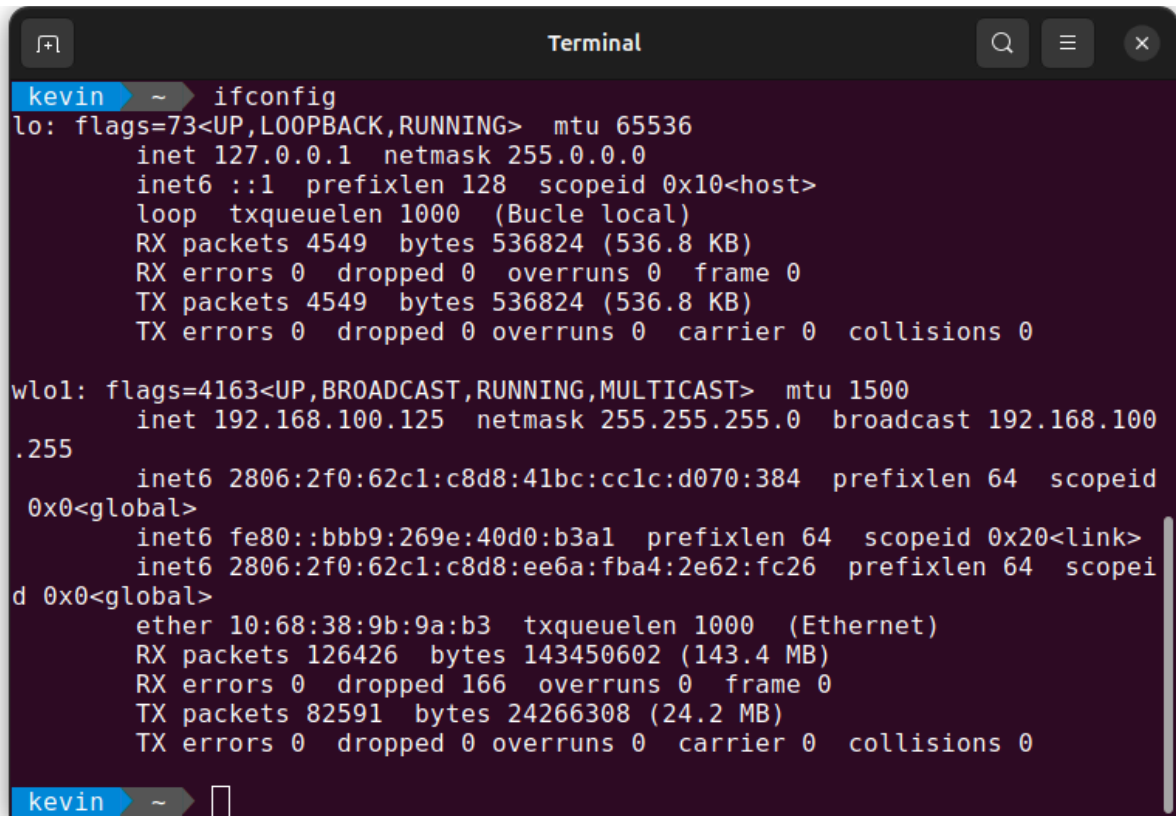
Now, as our first step we will check what's the modem/router page, so we need to do a bit of hacking commands here (sort of haha). We go to our search bar and write "Terminal", then click on it:



We should see something like this:



Nice! Now we are one step further to become hackers 😎. Next thing we must do is type `ifconfig` and should get something like this:

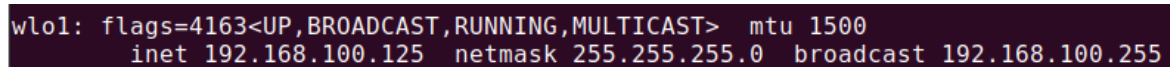
A terminal window titled "Terminal" with a dark background. The prompt is "kevin ~". The command "ifconfig" has been executed. The output shows details for the loopback interface "lo" and the wireless interface "wlo1".

```
kevin ~$ ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Bucle local)
    RX packets 4549 bytes 536824 (536.8 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4549 bytes 536824 (536.8 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlo1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.100.125 netmask 255.255.255.0 broadcast 192.168.100.255
    inet6 2806:2f0:62c1:c8d8:41bc:cc1c:d070:384 prefixlen 64 scopeid 0x0<global>
    inet6 fe80::bbb9:269e:40d0:b3a1 prefixlen 64 scopeid 0x20<link>
    inet6 2806:2f0:62c1:c8d8:ee6a:fba4:2e62:fc26 prefixlen 64 scopeid 0x0<global>
    ether 10:68:38:9b:9a:b3 txqueuelen 1000 (Ethernet)
    RX packets 126426 bytes 143450602 (143.4 MB)
    RX errors 0 dropped 166 overruns 0 frame 0
    TX packets 82591 bytes 24266308 (24.2 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

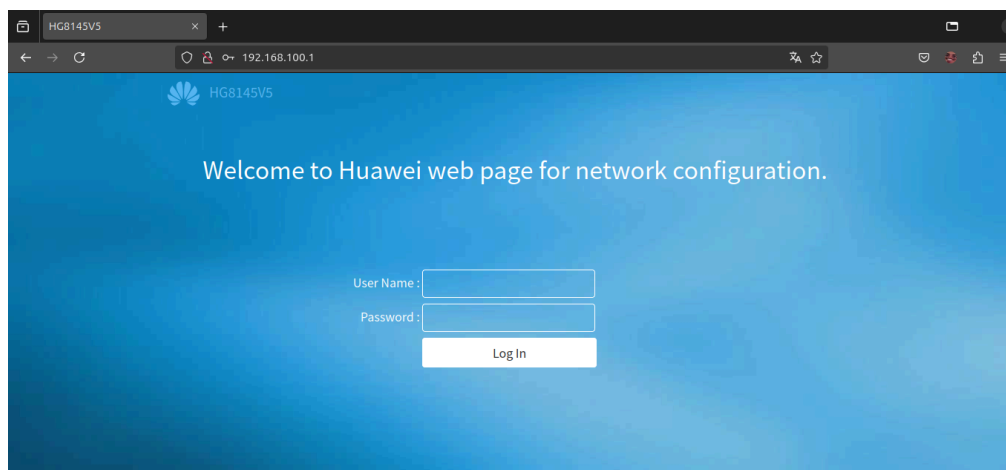
kevin ~$
```

if we look closer in the lines, we'll find the ip route of our pc:

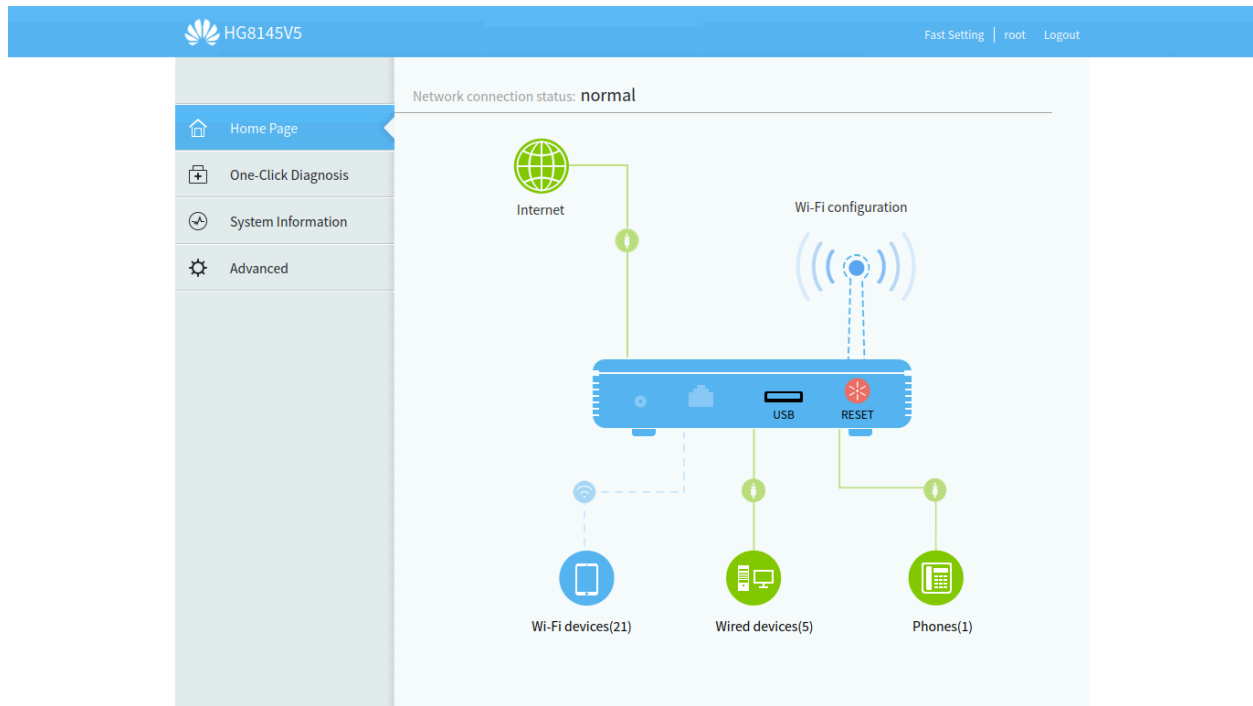
A single line from the terminal output is highlighted in a dark box. It shows the configuration for the wireless interface "wlo1", specifically the IP address and netmask.

```
wlo1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.100.125 netmask 255.255.255.0 broadcast 192.168.100.255
```

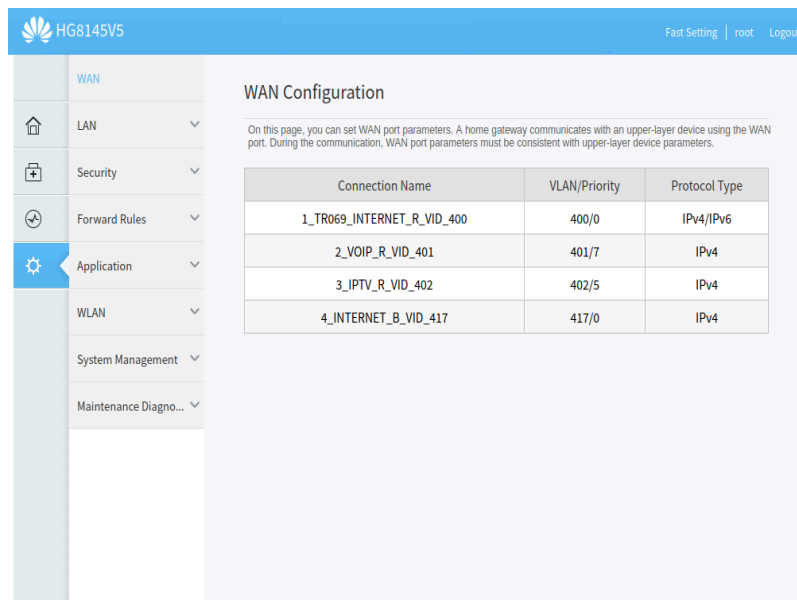
In this segment we'll find that we are in the network 192.168.100.0, usually the modem has the first usable ip direction (.1) so lets check that out in our browser:



Looks like that work! now we use the default credentials to access, that could be admin/admin or root/root, then we click login and see the config pages:



In this modem there is no much we can do, so we'll stick to the basics, clicking in the advanced tab we'll find our config menu:



In the LAN tab we'll find:

LAN Host Configuration

On this page, you can configure the LAN management IP address. After changing the LAN management IP address, ensure that the primary address pool on the DHCP server is in the same subnet as the new LAN IP address. Otherwise, the DHCP server will not work properly.

Primary Address

Primary IP Address: *

Primary Address Subnet Mask: *

Secondary Address

Enable Secondary Address: ☒

IP Address: *

Subnet Mask: *

Apply

Cancel

Remember those numbers? they're the modem ip address, we can change the last number in the Primary and Secondary IP Address, pick a number between 2 and 254, that will be your new modem ip address. remember that number, otherwise you wont be able to access this page again. Now we heading to the WLAN tab and click on it, we'll see something like this:

WLAN ^

2.4G Basic Network...

2.4G Advanced Netw...

5G Basic Network S...

5G Advanced Networ...

Automatic Wi-Fi Sh...

Wi-Fi Coverage

Multi-AP

System Management v

Maintenance Diagno... v

	SSID Index	SSID Name	SSID Status	Number of Associated Devices	Broadcast SSID	Security Configuration
<input type="checkbox"/>	1	Jodido Sin Internet	Enabled	32	Enabled	Configured

SSID Configuration Details

SSID Name:

Jodido Sin Internet * (1-32 characters)

Enable SSID:

☒

Number of Associated Devices:

32 * (1-32)

Broadcast SSID:

☒

Enable WMM:

☒

Authentication Mode:

WPA2 PreSharedKey v

Encryption Mode:

AES v

WPA PreSharedKey:

..... ☒ Hide * (8-63 characters or 64 hexadecimal characters)

WPA Group Key Regeneration Interval:

3600 * (600-86400s)

Enable WPS:

☐

WPS Mode:

PBC v

PBC:

Start WPS

Let's just focus on our SSID name, we can change it to whatever name we wish, mom picked that name, kinda hilarious tho. Then we go to the WPA PreSharedKey and change the password, let's keep that one in a safe place to, so we never lost them. all we need to do is go to the bottom of the page and click in "APPLY CHANGES". And that would be it.