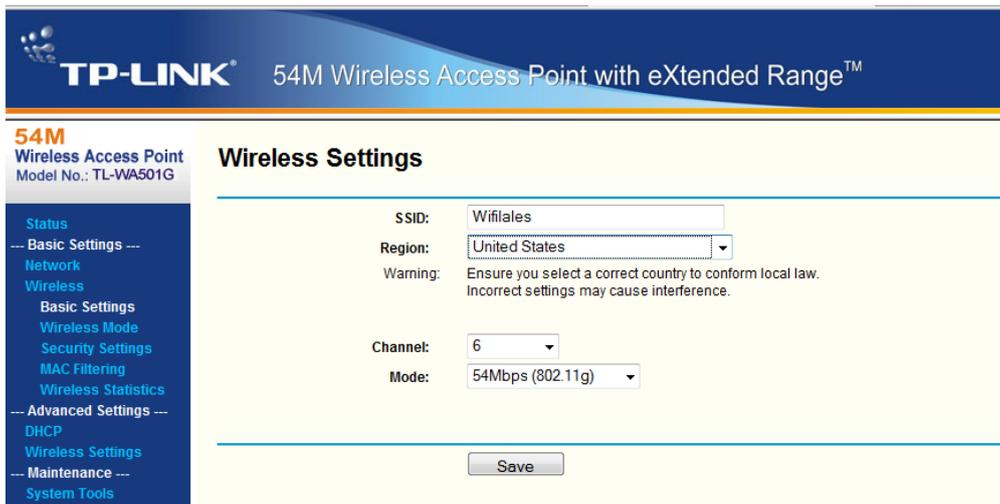


ACTIVIDAD 9 – SEGURIDAD EN LAS COMUNICACIONES INALÁMBRICAS – TEMA 2

a) Configuración de un punto de acceso inalámbrico seguro.

<http://www.tp-link.com/simulator/TL-WA501G/userRpm/index.htm>

Nos vamos a la página arriba indicada y vamos a ir a Wireless Settings y vamos a cambiar el SSID y vamos a ponerle Wifiales

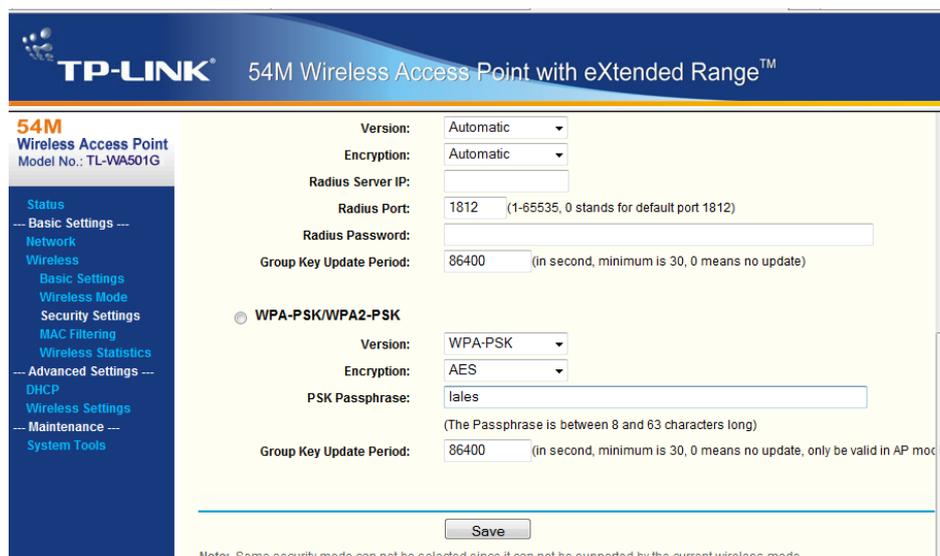


The screenshot shows the configuration page for a TP-LINK 54M Wireless Access Point. The page title is "54M Wireless Access Point with eXtended Range™". The left sidebar contains a navigation menu with the following items: Status, Basic Settings, Network, Wireless, Basic Settings, Wireless Mode, Security Settings, MAC Filtering, Wireless Statistics, Advanced Settings, DHCP, Wireless Settings, Maintenance, and System Tools. The main content area is titled "Wireless Settings" and contains the following fields:

- SSID: Wifiales
- Region: United States
- Warning: Ensure you select a correct country to conform local law. Incorrect settings may cause interference.
- Channel: 6
- Mode: 54Mbps (802.11g)

A "Save" button is located at the bottom of the form.

Ahora vamos a poner en Security Settings que encripte con WPA-PSK/WPA2-PSK y vamos a elegir la versión WPA-PSK y en Encryption vamos a elegir AES y la contraseña será lales



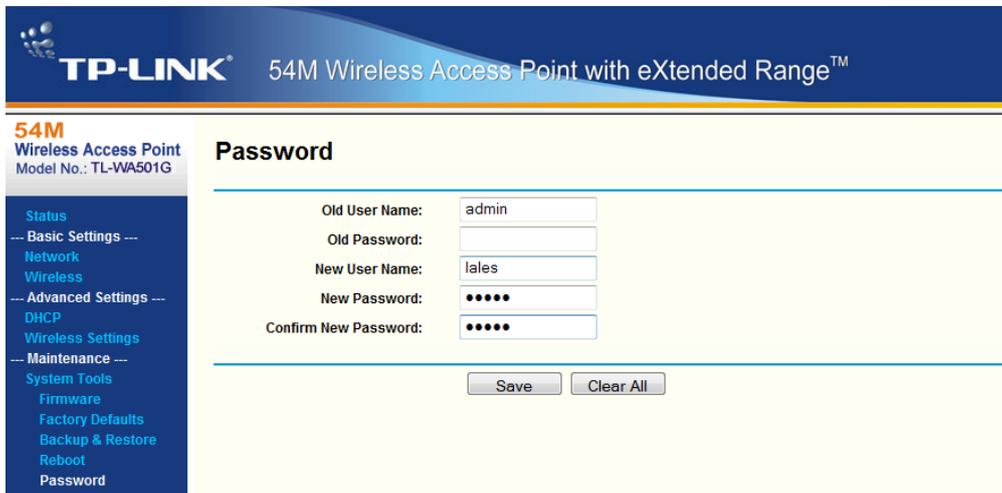
The screenshot shows the configuration page for a TP-LINK 54M Wireless Access Point, specifically the Security Settings section. The left sidebar is the same as in the previous screenshot. The main content area is titled "Security Settings" and contains the following fields:

- Version: Automatic
- Encryption: Automatic
- Radius Server IP: [Empty]
- Radius Port: 1812 (1-65535, 0 stands for default port 1812)
- Radius Password: [Empty]
- Group Key Update Period: 86400 (in second, minimum is 30, 0 means no update)
- WPA-PSK/WPA2-PSK
 - Version: WPA-PSK
 - Encryption: AES
 - PSK Passphrase: lales (The Passphrase is between 8 and 63 characters long)
 - Group Key Update Period: 86400 (in second, minimum is 30, 0 means no update, only be valid in AP mode)

A "Save" button is located at the bottom of the form.

Note: Some security mode can not be selected since it can not be supported by the current wireless mode

Y en la contraseña del administrador vamos a poner en Maintenance y Password un nuevo usuario y una contraseña



The screenshot shows the configuration interface for a TP-LINK 54M Wireless Access Point (Model No.: TL-WA501G). The page title is "54M Wireless Access Point with eXtended Range™". The left sidebar contains a navigation menu with options: Status, Basic Settings, Network, Wireless, Advanced Settings, DHCP, Wireless Settings, Maintenance, System Tools, Firmware, Factory Defaults, Backup & Restore, Reboot, and Password. The main content area is titled "Password" and contains the following fields:

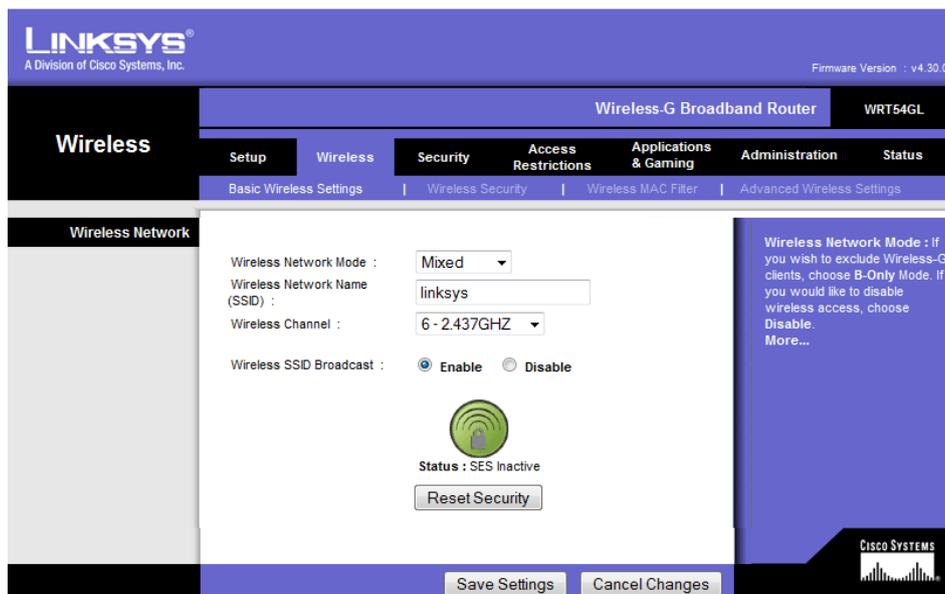
- Old User Name: admin
- Old Password: (empty)
- New User Name: lales
- New Password: (masked with dots)
- Confirm New Password: (masked with dots)

At the bottom of the form are two buttons: "Save" and "Clear All".

b) Configuración de un router de acceso inalámbrico CISCO LINKSYS WRT54GL, utilizando un simulador.

<http://ui.linksys.com/files/WRT54GL/4.30.0/Setup.htm>

Entramos en el simulador, por medio del navegador y ponemos la dirección arriba indicada, en Wireless podemos cambiar el SSID

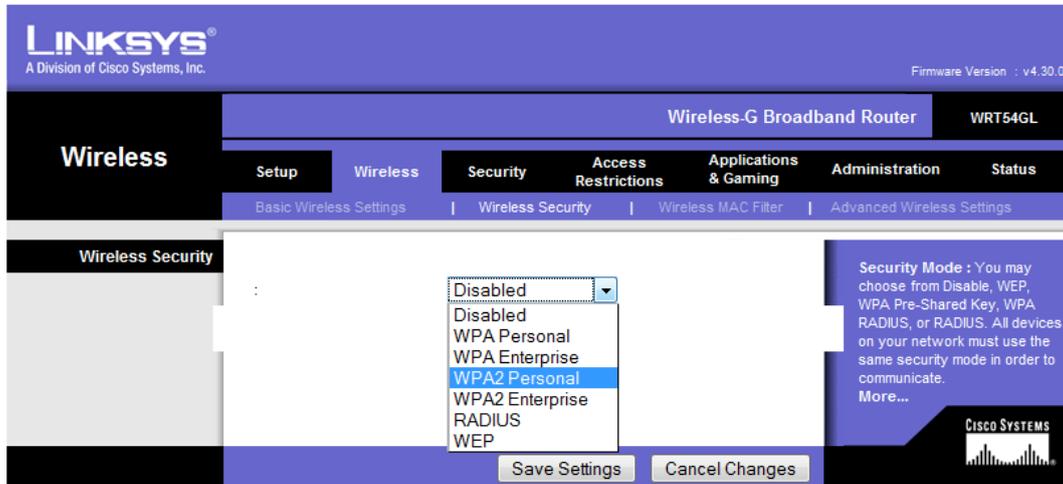


The screenshot shows the configuration interface for a Linksys WRT54GL Wireless-G Broadband Router. The page title is "LINKSYS A Division of Cisco Systems, Inc." and the firmware version is "v4.30.0". The main content area is titled "Wireless" and contains the following settings:

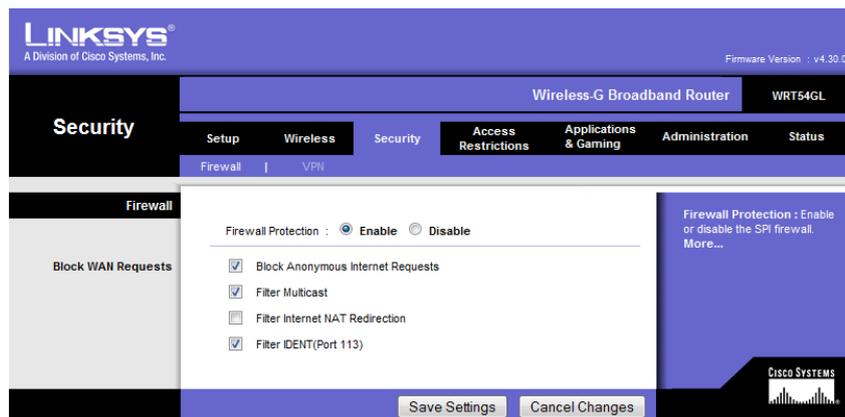
- Wireless Network Mode: Mixed
- Wireless Network Name (SSID): linksys
- Wireless Channel: 6 - 2.437GHZ
- Wireless SSID Broadcast: Enable Disable

Below the settings is a "Wireless Network" status indicator showing a green signal strength icon and the text "Status: SES Inactive". A "Reset Security" button is located below the status indicator. At the bottom of the page are two buttons: "Save Settings" and "Cancel Changes".

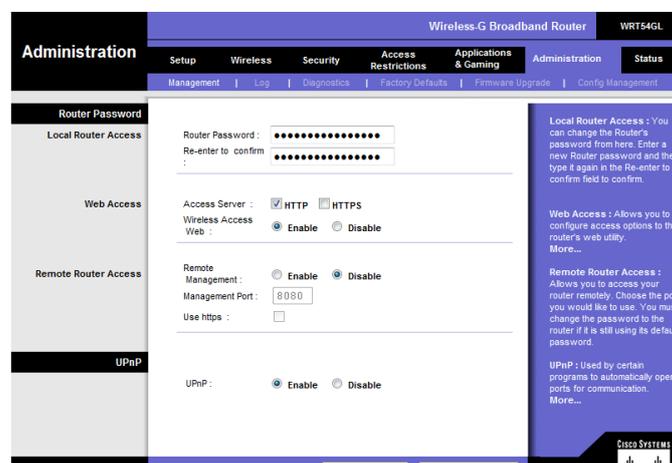
A continuación vamos a elegir Wireless Security y vamos a poner WPA2 Personal para que encripte de esta manera



Después en Security Firewall lo activamos con Enable



Y a continuación en Administration Management podemos cambiar la contraseña y la encriptar del modo elegido anteriormente



c) Configuración de un router de acceso inalámbrico CISCO Linksys seguro y un cliente de acceso inalámbrico en Windows y GNU/Linux.

- Filtro MAC, WPA, Control parental.

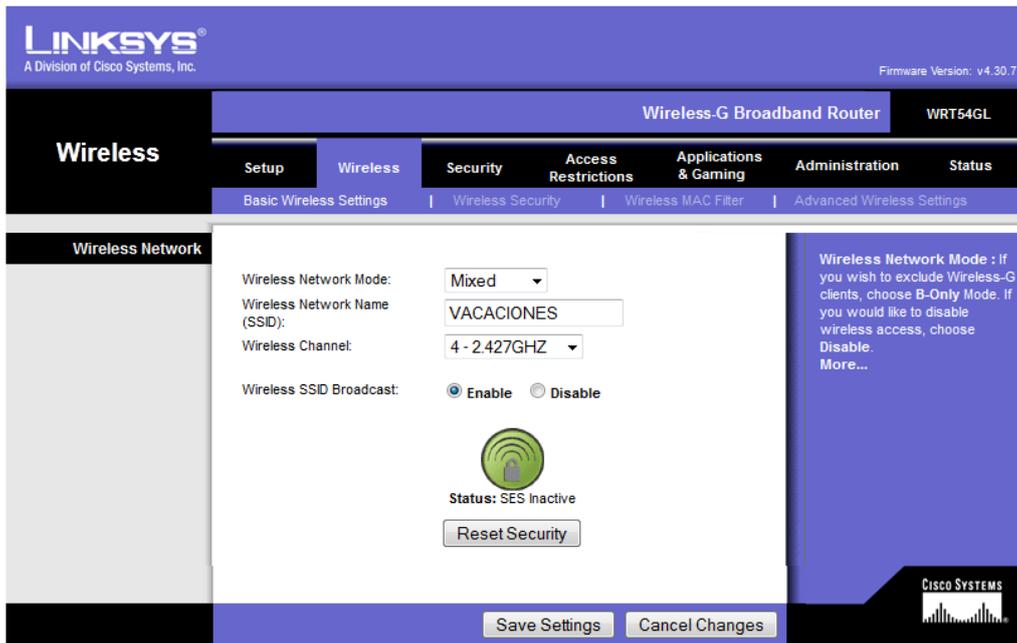
Conectamos el Router al pc y empezamos la configuración
Accedemos desde el navegador poniendo la dirección por defecto 192.168.1.1 y el usuario y contraseña por defecto admin

The screenshot shows the Linksys configuration interface for a WRT54GL router. The 'Setup' menu is active, and the 'Internet Setup' section is expanded. The 'Internet Connection Type' is set to 'Automatic Configuration - DHCP'. The 'Router Name' is 'WRT54GL'. The 'Local IP Address' is '192.168.1.1' and the 'Subnet Mask' is '255.255.255.0'. The 'DHCP Server' is enabled, with a 'Starting IP Address' of '192.168.1.100' and a 'Maximum Number of DHCP Users' of '50'. The 'Client Lease Time' is set to '0' minutes. The 'Static DNS 1' is '0.0.0.0'. The 'Time Setting' section is also visible at the bottom, with the 'Time Zone' set to '(GMT-08:00) Pacific Time (USA & Canada)'. The 'Help' sidebar on the right provides additional information about the settings.

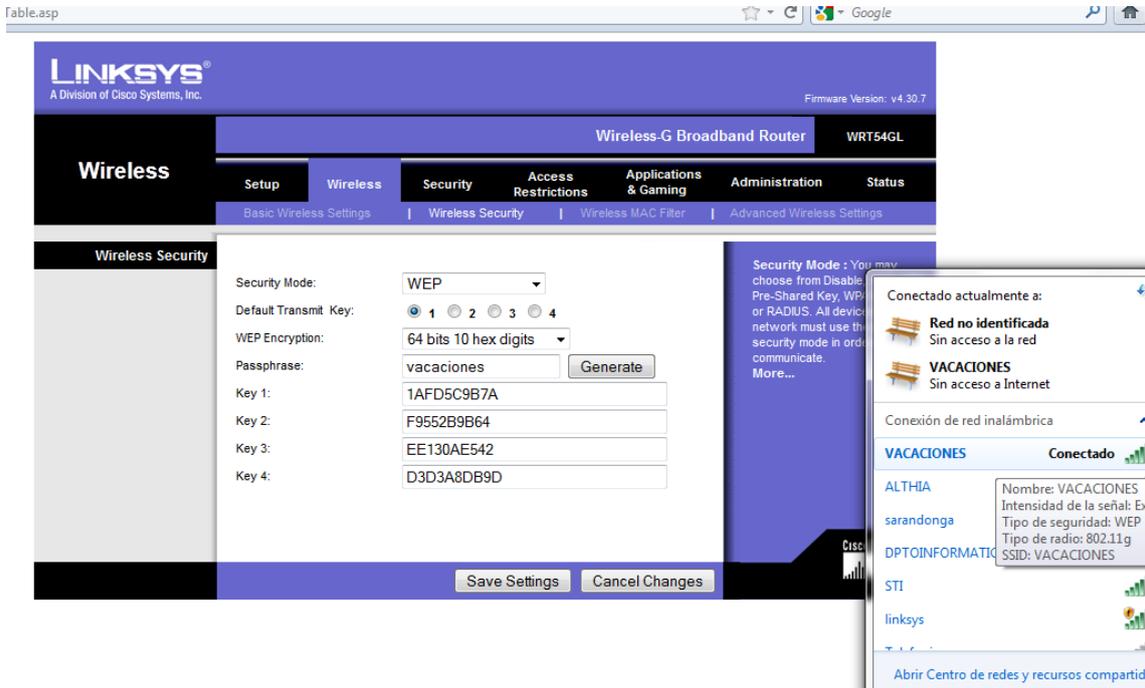
Cambiamos el nombre del Router por el de vacaciones

The screenshot shows the Linksys configuration interface for a WRT54GL router, similar to the previous one, but with the 'Router Name' changed to 'VACACIONES'. The 'Internet Connection Type' is still 'Automatic Configuration - DHCP'. The 'Local IP Address' is '192.168.1.1' and the 'Subnet Mask' is '255.255.255.0'. The 'DHCP Server' is enabled, with a 'Starting IP Address' of '192.168.1.100' and a 'Maximum Number of DHCP Users' of '50'. The 'Client Lease Time' is set to '0' minutes. The 'Static DNS 1' is '0.0.0.0'. The 'Time Setting' section is also visible at the bottom, with the 'Time Zone' set to '(GMT-08:00) Pacific Time (USA & Canada)'. The 'Help' sidebar on the right provides additional information about the settings.

Cambiamos el SSID por el de vacaciones



Generamos una clave WEP de la palabra vacaciones



Cambiamos la contraseña

The screenshot shows the Linksys Administration interface for a Wireless-G Broadband Router (WRT54GL). The page is titled "Router Password" and is part of the "Administration" section. The left sidebar contains "Local Router Access", "Web Access", "Remote Router Access", and "UPnP". The main content area has the following settings:

- Router Password: Two masked input fields for the current and new password.
- Access Server: HTTP, HTTPS
- Wireless Access Web: Enable, Disable
- Remote Management: Enable, Disable
- Management Port: Input field containing "8080"
- Use https:
- UPnP: Enable, Disable

On the right, there are three informational panels:

- Local Router Access:** You can change the Router's password from here. Enter a new Router password and then type it again in the Re-enter to confirm field to confirm.
- Web Access:** Allows you to configure access options to the router's web utility. More...
- Remote Router Access:** Allows you to access your router remotely. Choose the port you would like to use. You must change the password to the router if it is still using its default password.
- UPnP:** Used by certain programs to automatically open ports for communication. More...

The bottom of the page shows the Cisco Systems logo.

Y ahora creamos el control parental con las restricciones que queremos

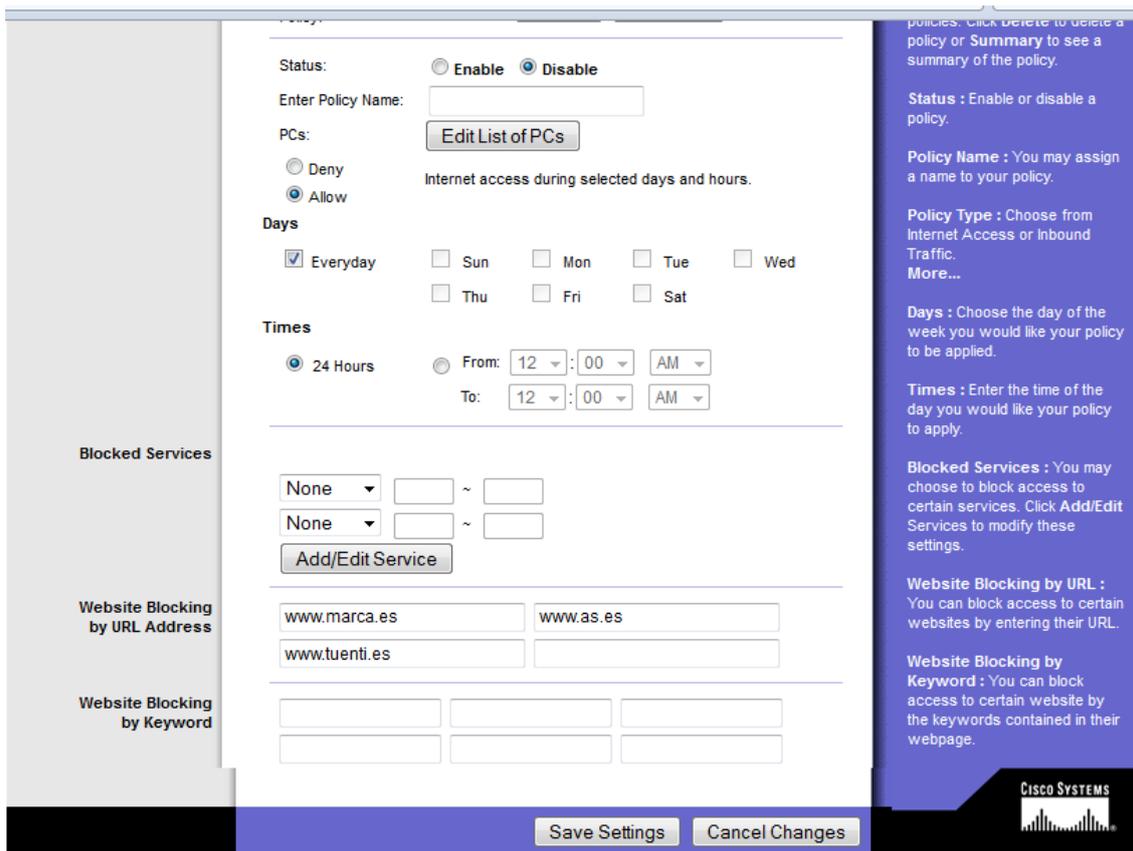
The screenshot shows the Linksys Access Restrictions interface for a Wireless-G Broadband Router (WRT54GL). The page is titled "Internet Access" and is part of the "Access Restrictions" section. The left sidebar contains "Internet Access" and "Blocked Services". The main content area has the following settings:

- Internet Access Policy: 1 () [Delete] [Summary]
- Status: Enable, Disable
- Enter Policy Name: Input field
- PCs: [Edit List of PCs]
- Deny/Allow: Deny, Allow
- Internet access during selected days and hours.
- Days: Everyday, Sun, Mon, Tue, Wed, Thu, Fri, Sat
- Times: 24 Hours, From: 12:00 AM To: 12:00 AM
- Blocked Services: Two dropdown menus, both set to "None", with range selection (~).

On the right, there are three informational panels:

- Internet Access Policy:** You may define up to 10 access policies. Click Delete to delete a policy or Summary to see a summary of the policy.
- Status:** Enable or disable a policy.
- Policy Name:** You may assign a name to your policy.
- Policy Type:** Choose from Internet Access or Inbound Traffic. More...
- Days:** Choose the day of the week you would like your policy to be applied.
- Times:** Enter the time of the day you would like your policy to apply.
- Blocked Services:** You may choose to block access to certain services. Click Add/Edit Services to modify these settings.

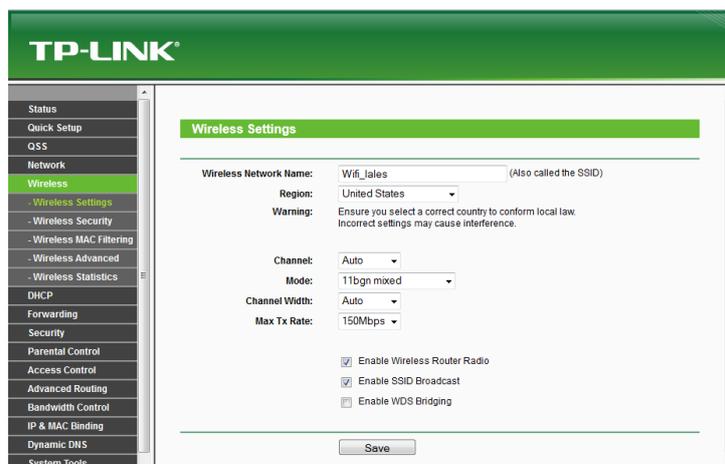
The bottom of the page shows the Cisco Systems logo.



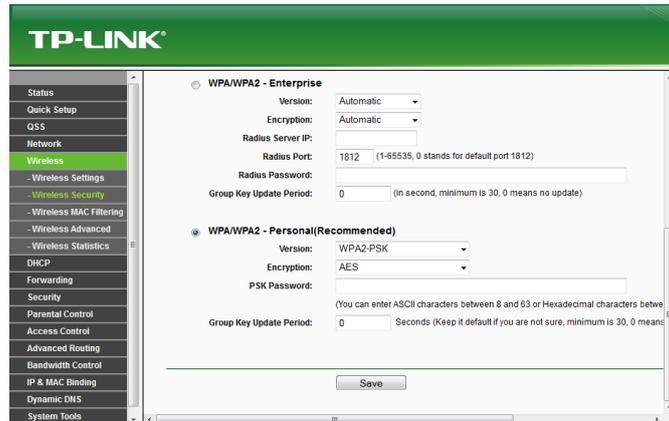
d) Configuración de un router de acceso inalámbrico TP-LINK, utilizando un simulador.

<http://www.tp-link.com/en/support/emulators/>

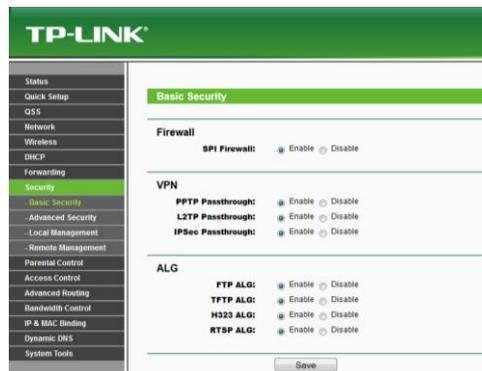
Nos vamos a la página arriba indicada y vamos a configurar el Router inalámbrico de forma simulada, para ello vamos primero a Wireless Settings y cambiamos el SSID y ponemos Wifi_lales



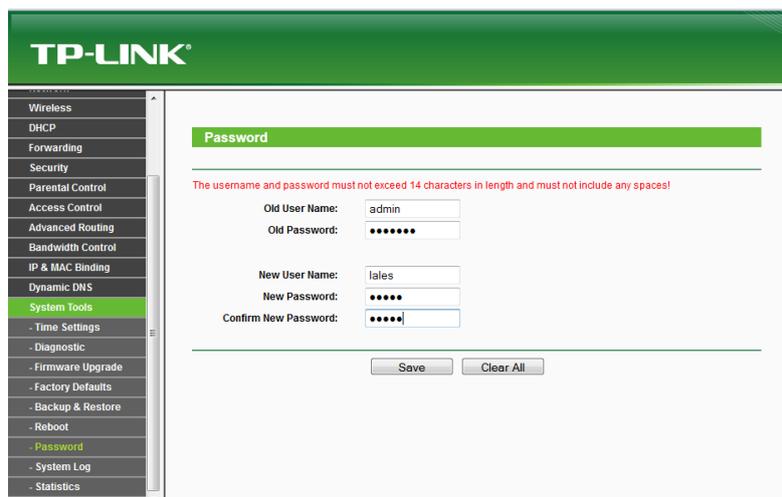
A continuación vamos a Wireless Security y vamos a cambiar la forma de cifrado y elegimos Versión WPA2-PSK y en Encryption AES



En Security, Basic Security vamos a poner Firewall en Enable

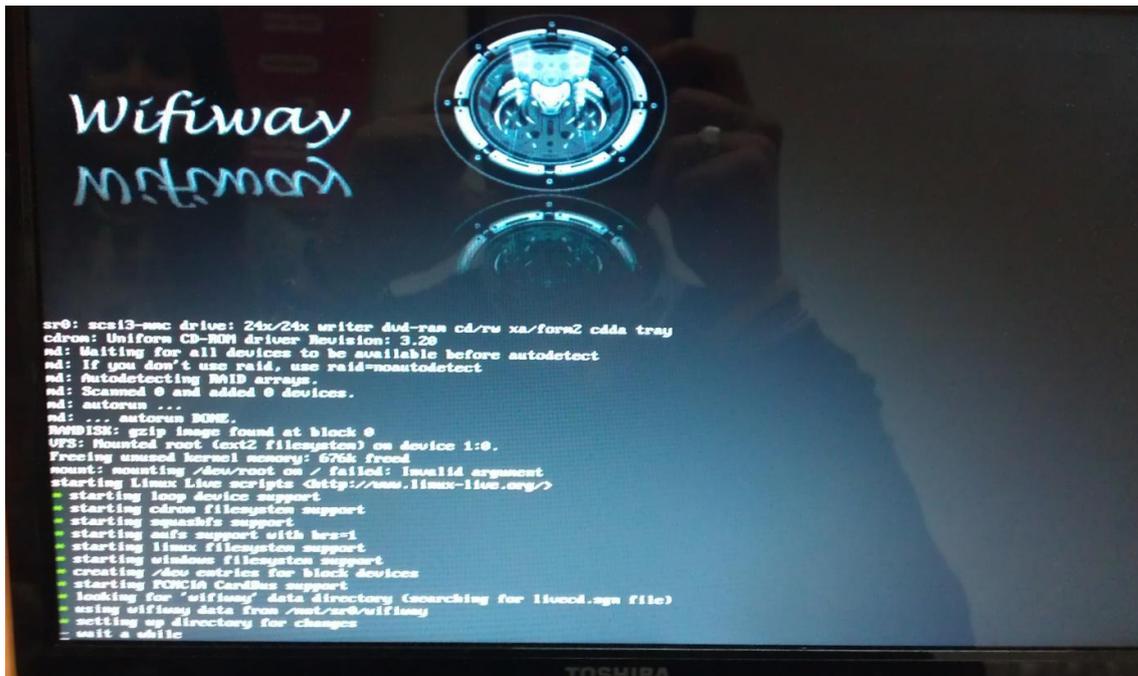


Y ahora en System Tools cambiamos la contraseña y el usuario

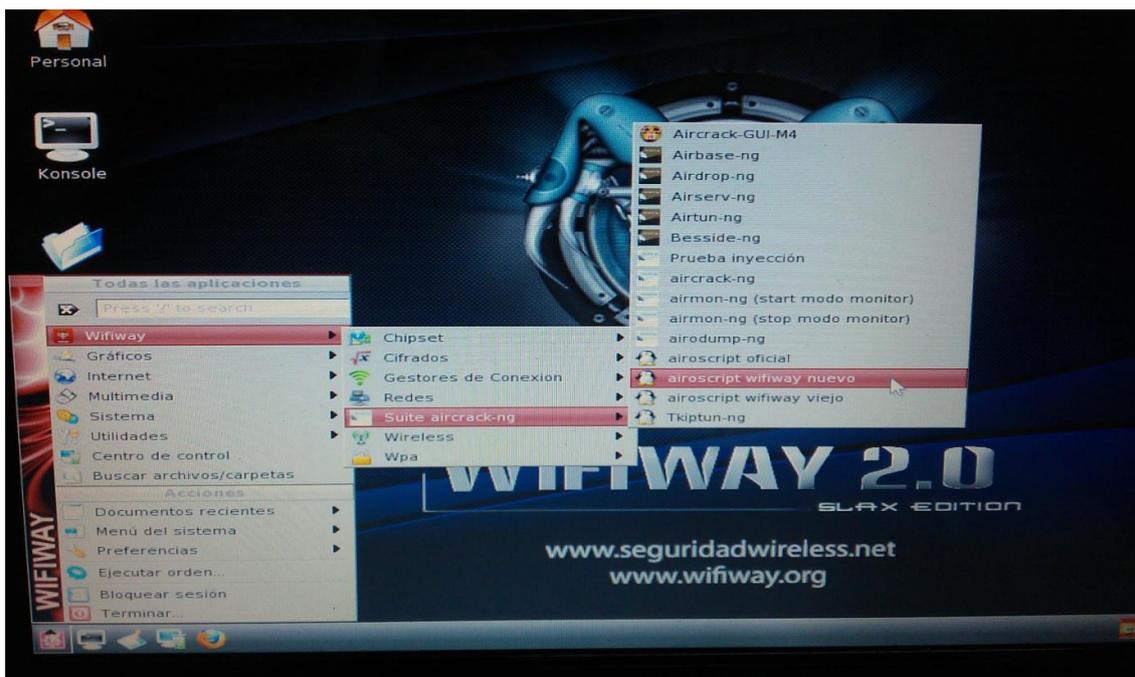


e) Realiza una auditoria Wireless para medir el nivel de seguridad de una red inalámbrica, utilizando una distribución Live (Backtrack, Wifiway, Wifislax, etc) para monitorizar y recuperar contraseñas inalámbricas WEP.

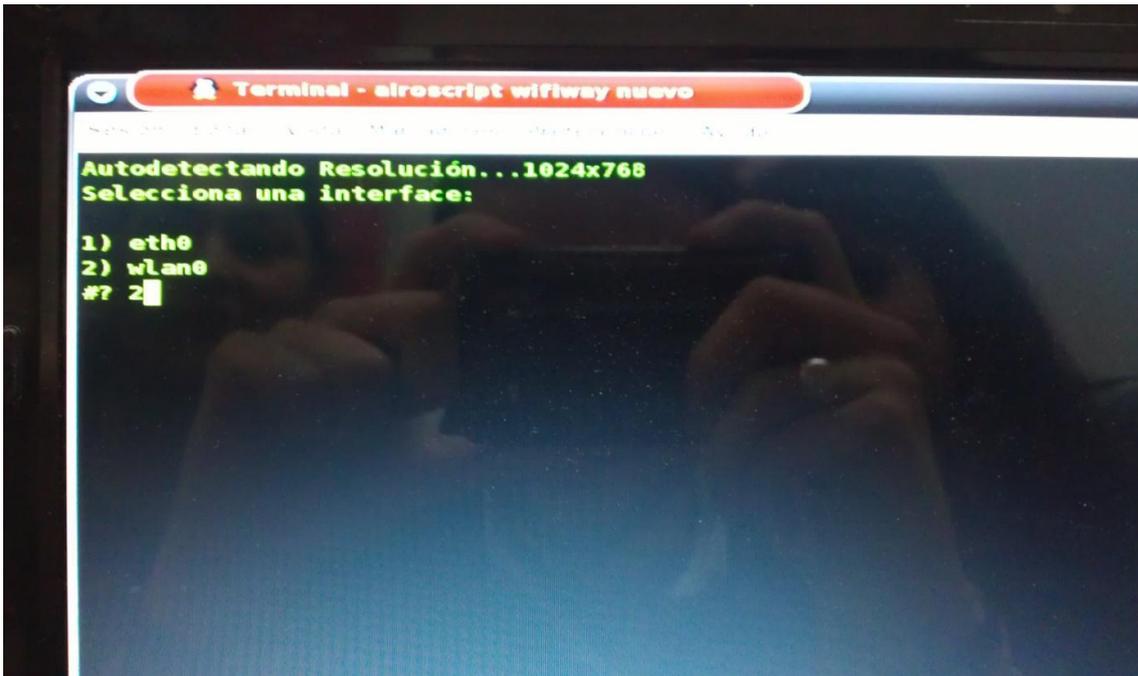
Introducimos el CD para que el ordenador arranque desde él



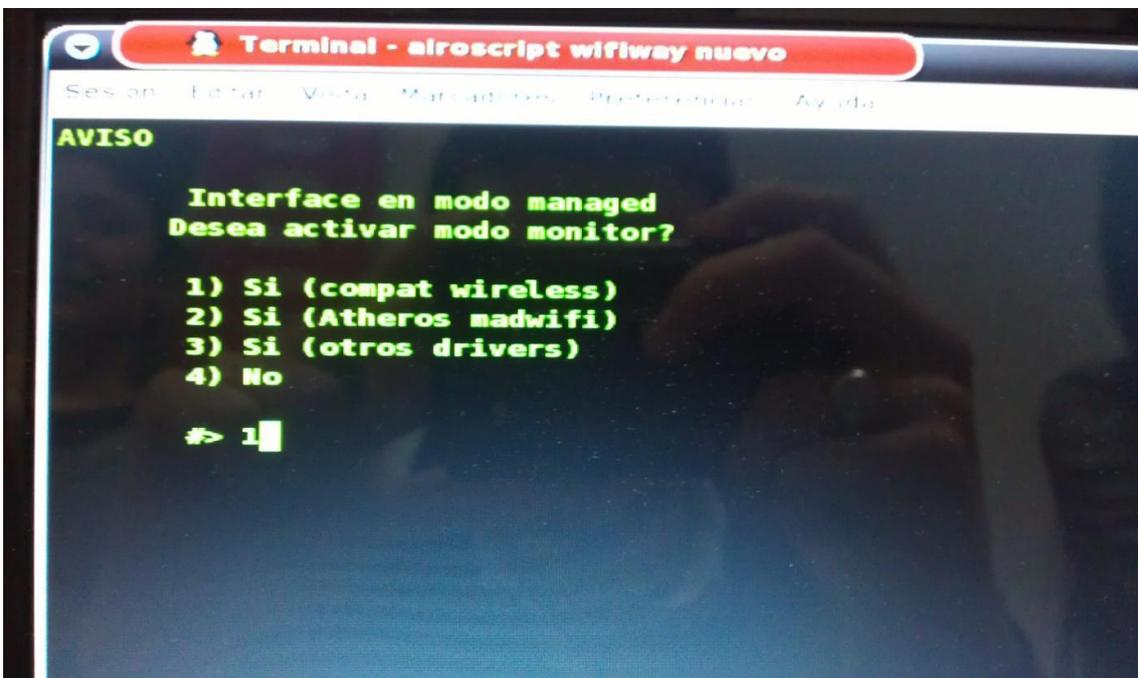
Una vez en la pantalla principal nos vamos al menú de inicio



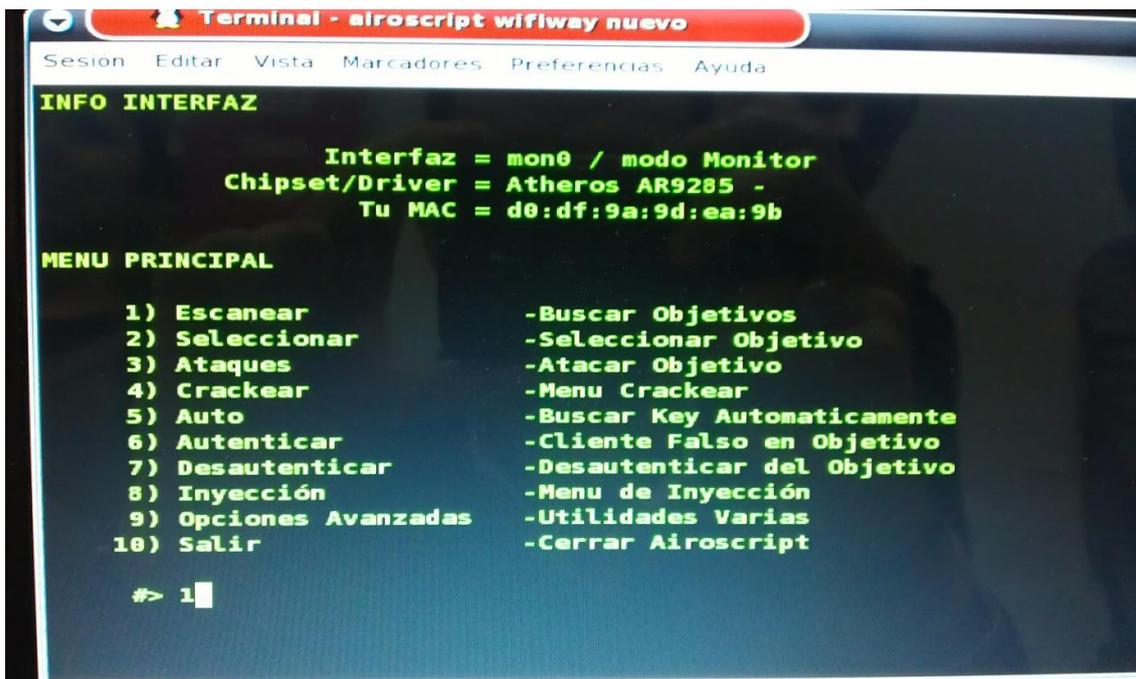
Elegimos la opción wlan0



A continuación la opción 1, activar modo monitor

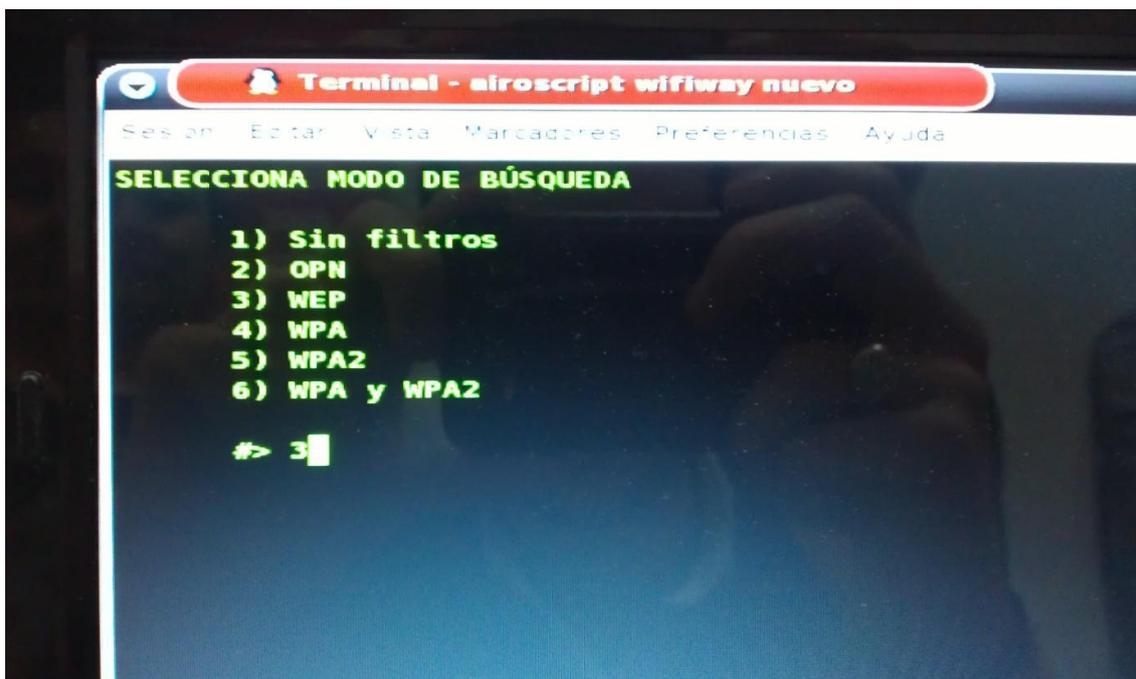


Ahora la opción Escanear, 1



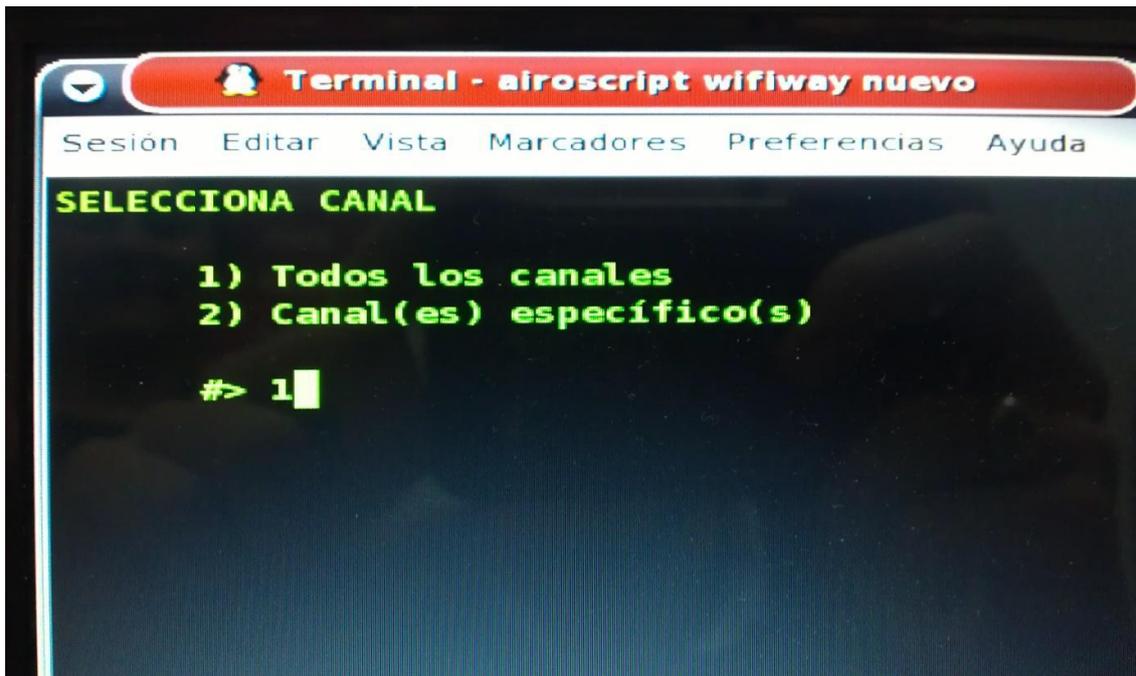
```
Terminal - airoscript wifiway nuevo
Sesion  Editar  Vista  Marcadores  Preferencias  Ayuda
INFO INTERFAZ
      Interfaz = mon0 / modo Monitor
Chipset/Driver = Atheros AR9285 -
      Tu MAC = d0:df:9a:9d:ea:9b
MENU PRINCIPAL
1) Escanear           -Buscar Objetivos
2) Seleccionar        -Seleccionar Objetivo
3) Ataques            -Atacar Objetivo
4) Crackear           -Menu Crackear
5) Auto               -Buscar Key Automaticamente
6) Autenticar         -Cliente Falso en Objetivo
7) Desautenticar     -Desautenticar del Objetivo
8) Inyección         -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir             -Cerrar Airoscript
#> 1
```

Modo de Búsqueda de encriptación elegimos WEP, 3



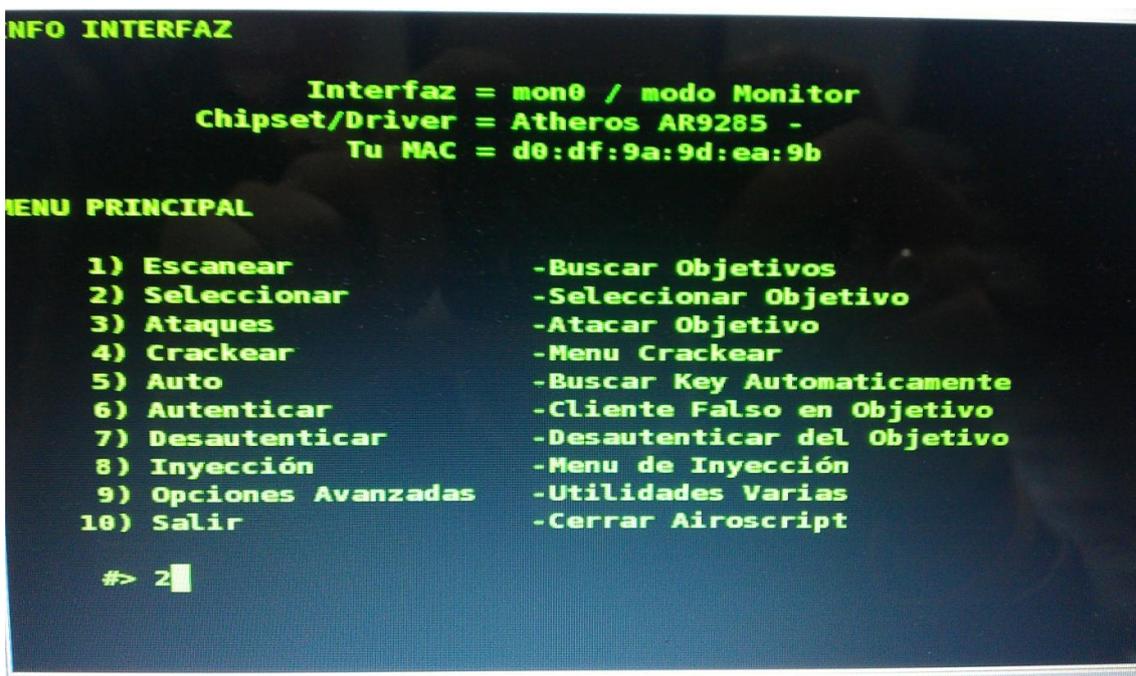
```
Terminal - airoscript wifiway nuevo
Sesion  Editar  Vista  Marcadores  Preferencias  Ayuda
SELECCIONA MODO DE BÚSQUEDA
1) Sin filtros
2) OPN
3) WEP
4) WPA
5) WPA2
6) WPA y WPA2
#> 3
```

Que busque en todos los canales

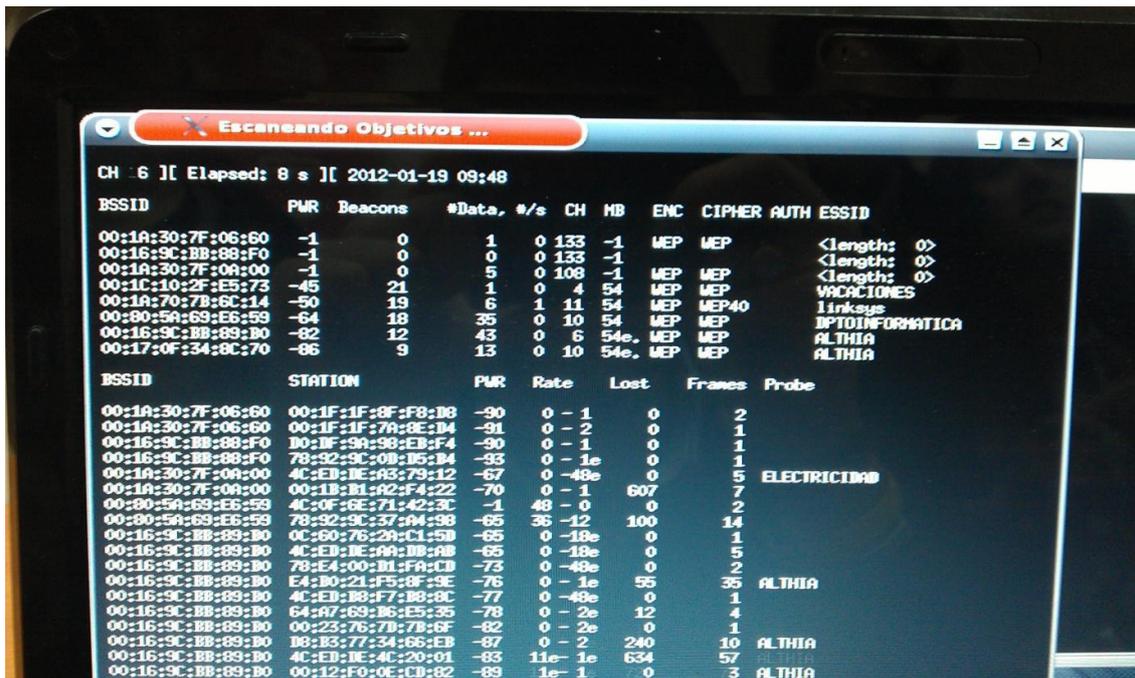


```
Terminal - airoscript wifiway nuevo
Sesión  Editar  Vista  Marcadores  Preferencias  Ayuda
SELECCIONA CANAL
1) Todos los canales
2) Canal(es) específico(s)
#> 1
```

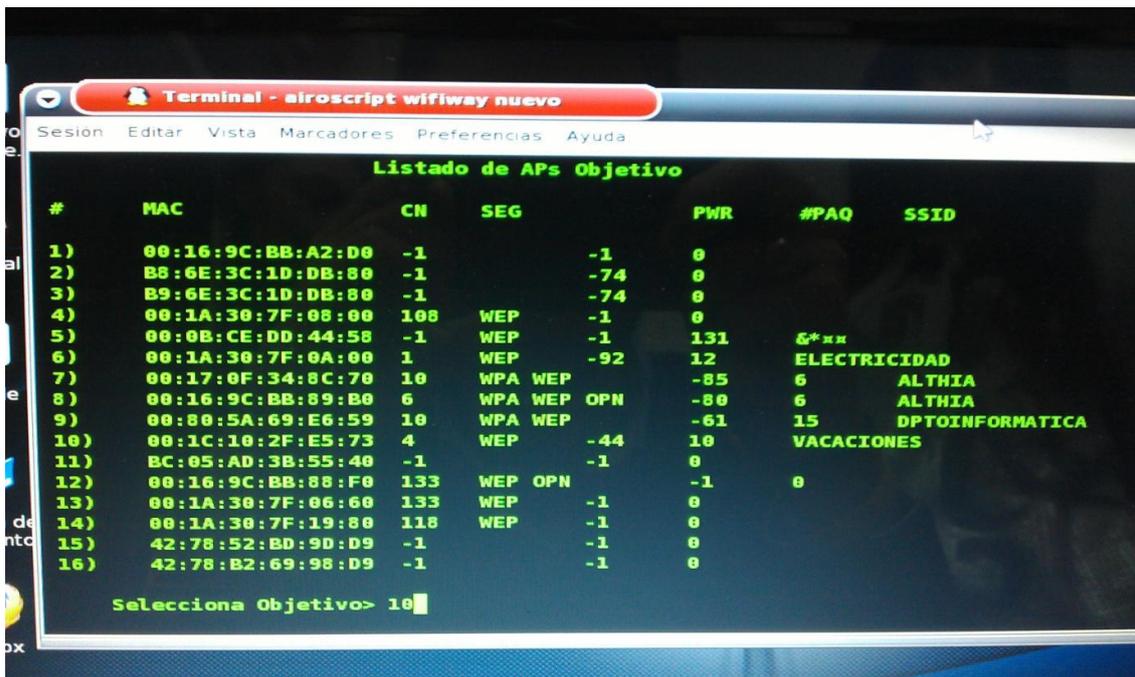
Ahora vamos a seleccionar objetivo



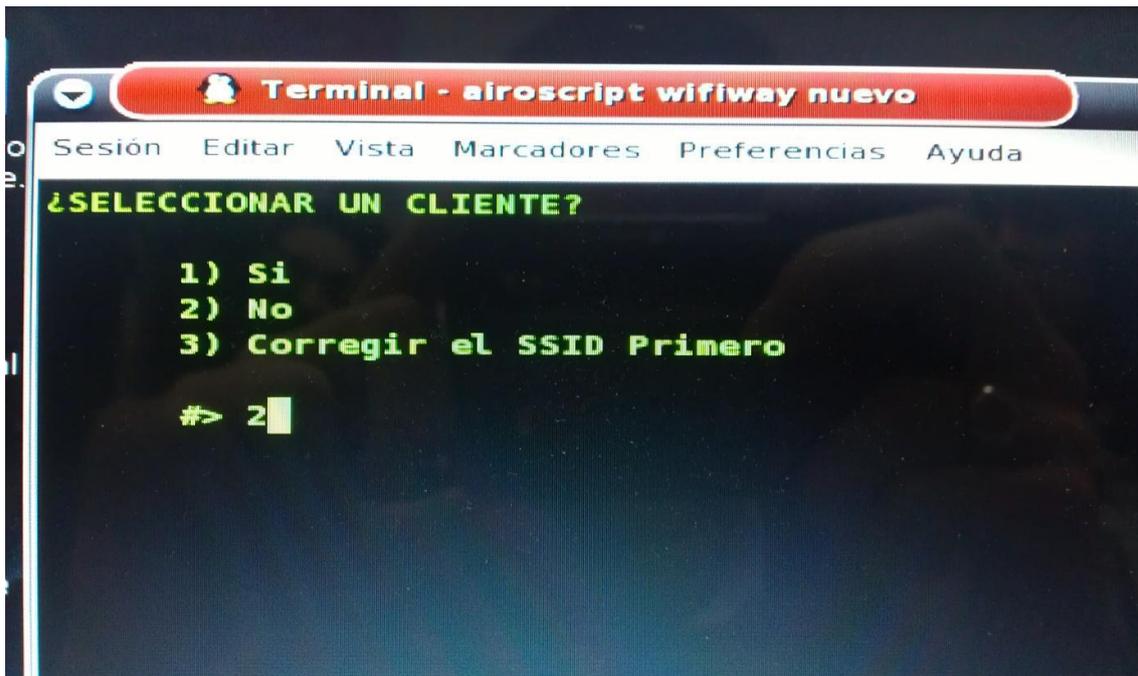
```
INFO INTERFAZ
Interfaz = mon0 / modo Monitor
Chipset/Driver = Atheros AR9285 -
Tu MAC = d0:df:9a:9d:ea:9b
MENU PRINCIPAL
1) Escanear -Buscar Objetivos
2) Seleccionar -Seleccionar Objetivo
3) Ataques -Atacar Objetivo
4) Crackear -Menu Crackear
5) Auto -Buscar Key Automaticamente
6) Autenticar -Cliente Falso en Objetivo
7) Desautenticar -Desautenticar del Objetivo
8) Inyección -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir -Cerrar Airoscript
#> 2
```



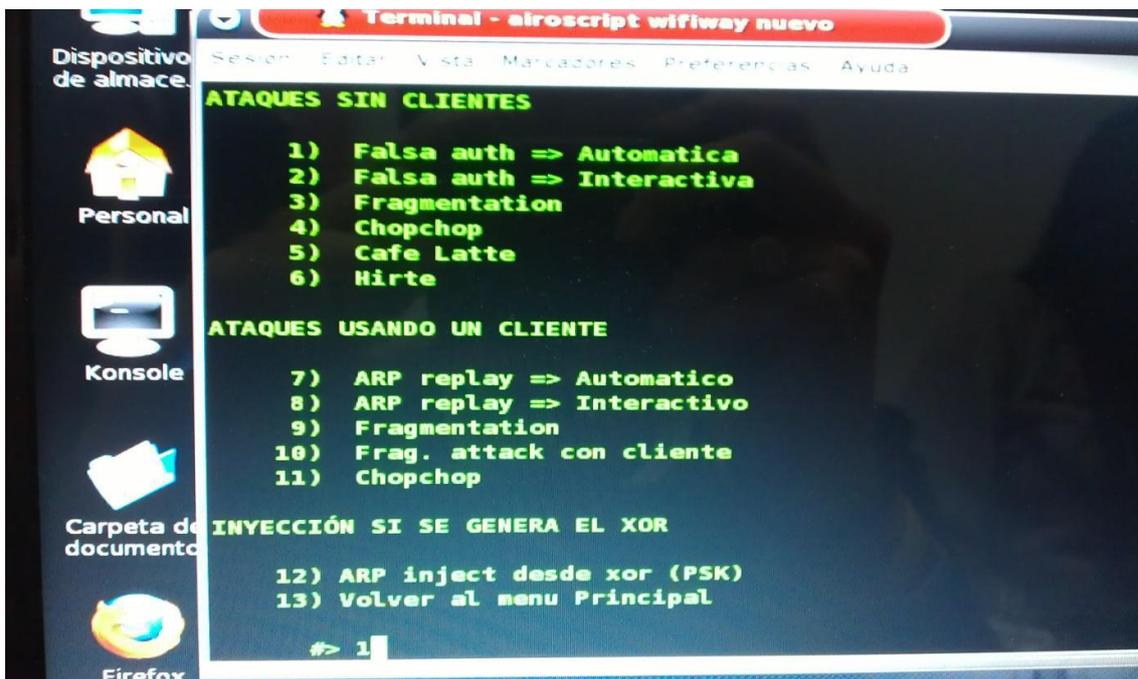
Ya ha encontrado vacaciones, y elegimos la 10



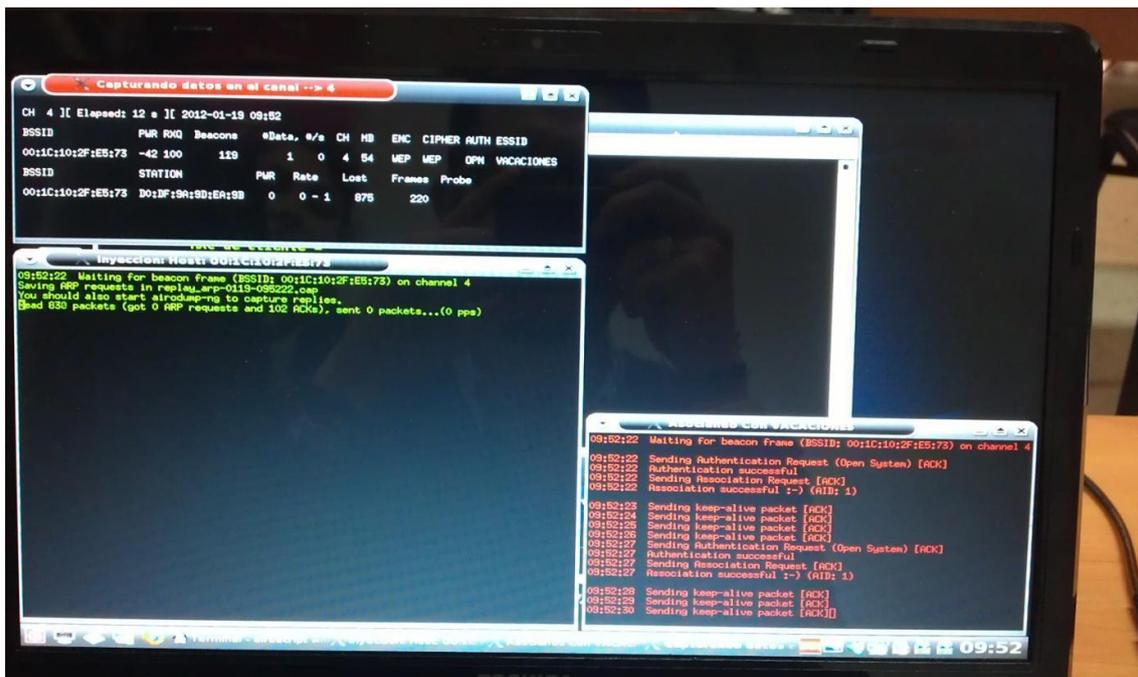
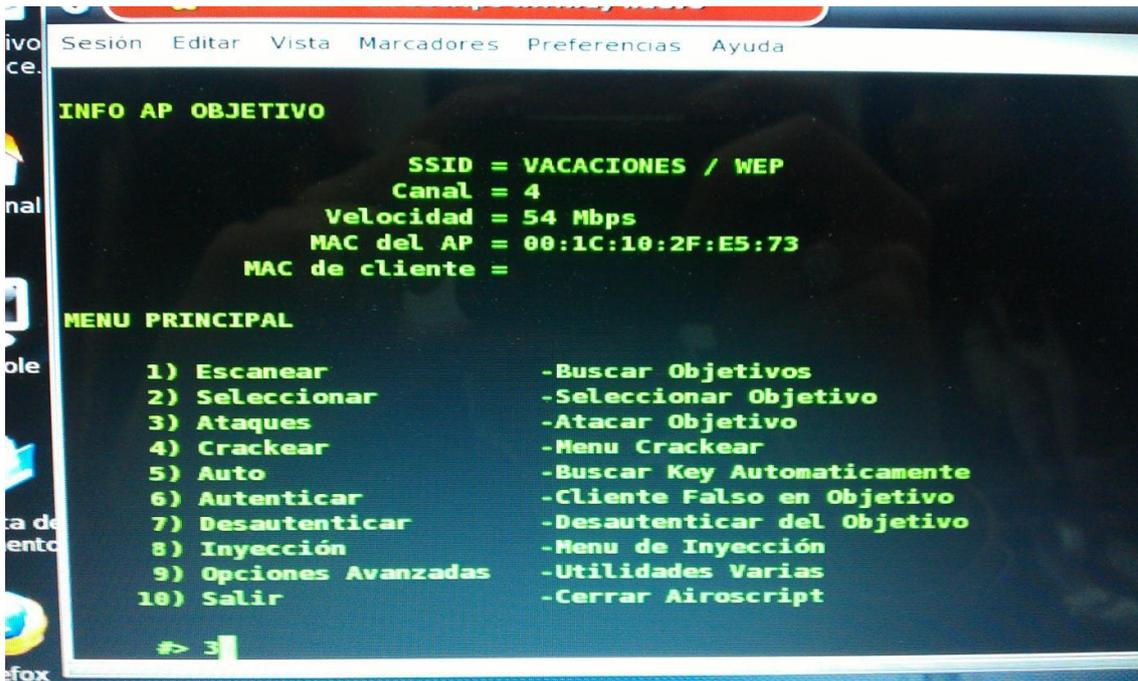
Ahora seleccionar un cliente, le decimos opción 2, no



Ahora ponemos opción automática, 1



Ahora elegimos opción 3, Ataques



Ahora le damos a opción 4, Crackear

```
INFO AP OBJETIVO
                SSID = VACACIONES / WEP
                Canal = 4
                Velocidad = 54 Mbps
                MAC del AP = 00:1C:10:2F:E5:73
                MAC de cliente =

MENU PRINCIPAL
1) Escanear           -Buscar Objetivos
2) Seleccionar        -Seleccionar Objetivo
3) Ataques            -Atacar Objetivo
4) Crackear           -Menu Crackear
5) Auto               -Buscar Key Automaticamente
6) Autenticar         -Cliente Falso en Objetivo
7) Desautenticar     -Desautenticar del Objetivo
8) Inyección         -Menu de Inyección
9) Opciones Avanzadas -Utilidades Varias
10) Salir             -Cerrar Airoscript

#> 4
```

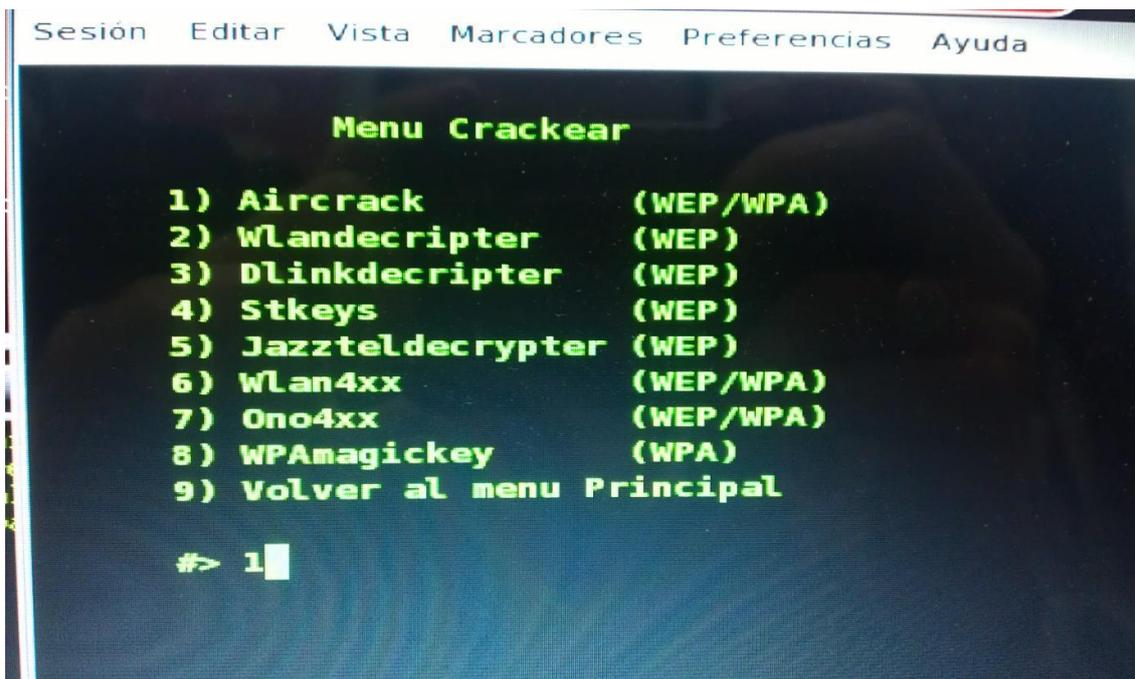
```
Capturando datos en el canal --> 4

Terminal - airoscript wifiway nuevo
Sesión Editar Vista Marcadores Preferencias Ayuda

Opciones WEP CRACKING
1) aircrack-ng PTW
2) aircrack-ng Estandard
3) aircrack-ng Opciones User

#> 1
```

Ahora opción 1, para que elija Aircrack



Y ya nos ha encontrado la contraseña

