LANPRO
Connect-and-Forget

LP1540ai_UG_ENB01W

bg WiFi n compatible

PoE Power Over Ethernet

LP-1540ai

User Guide.
Initial configuration

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LP-1540ai

The **LP-1540ai** is a powerful Access Point with a 27dBi EIRP and 300Mbps of data air rate on the 2.4 GHz band, it is PoE powered and boasts multiple physical and virtual interfaces and VLAN support. The **LP-1540ai** is designed for outdoor service.

Main Features		
EIRP power of 27dBm±1.5dBm	Provides multiple SSIDs.	The firmware includes (Load, Traffic, Wireless and physical Connections), with monitoring panel.
Complies with IEEE802.11 b, g and n standards.	Web based configuration and Support.	Performs Execution of Programmed tasks.
Supports high data transfer rates on the air of up to 300 Mbps, When in IEEE802.11n mode with two air streams.	Supports advanced Firewall for physical and logical interfaces (Global and Individual).	Supports automatic adjustment of air data transfer rate.
Good reception sensitivity with a peak of 67dBm±1.5dBm at 300 Mbps and a EIRP power of (500mW) for ample WiFi coverage.	Firmware update via web browser.	Loader of Updates is Supported.
Supports creation of multiple logical interfaces.	Basic diagnostics support embedded in the firmware.	Supports automatic air rate speed.
Provides MAC Access Control.	Provides 10/100 Mbps Ethernet support and automatic MDI/MDIX.	Supports MAC address filtering; wireless security on-off; 64/128/152bit WEP encryption and PA-PSK/ WPA2- PSK WPA/WPA2, with of reinforcement of security mechanisms for Data Transmission.
Advanced Routing adjustment support.	Advanced DHCP, DNS characteristics, Firewalls and NAT.	A DHCP Server has been included.

WMM Support, better voice flow in videos.	Supports Span-Tree Protocol 802.3d	Supports QoS, used for better quality of service delivery.
Support of VLAN for some interfaces.	Support of LAN Host names table.	----

The **LP-1540ai**, is a product that has features not found in similar equipment in the same category. The **LP-1540ai** permits a granular configuration of functionalities based on your needs.

In this fast installation guide you will find how to modify the base configuration loaded in the equipment (Router Mode) in which with few adjustments will convert in your Internet Access Router.

Additionally, a description of how to load the different pre-configured templates. For details on the templates, you must refer to each independently made document.

If you require advanced functions, please review the User Manual (**LP1540ai_UM_ENB01W**) in which a detailed description of all the configurations is explained; please take in mind that this document purpose is that you can set-the equipment up rapidly.

This process has been divided into four sections as follows:	
1.	How to install the **LP-1540ai.**
2.	Accesing the **LP-1540ai**.
3.	Modifying the Router Mode Template values.
4.	How to add additional templates for pre-configuration.

Then each of the sections is as follows:

1. LP-1540ai installation

Proceed to check that the package contains the following components:

- 1 LP-1540ai radio.
- 1 Ethernet CAT 5e PatchCord
- 1 PoE injector.
- 1 Power cable for the PoE injector.
- 1 Documentation CD.
- 1 AC/DC Power Converter.

Figure 1.

Please proceed to make a layout plan for the equipment installation.

1.1 Please define the equipment application (AP, Router, PtP, Etc.)

- The WAN port won't be used in the AP or PtP configurations, only as an auxiliary port in this configuration (Please refer to the user manual LP1540ai_UM_ENB01W). **Please note that in this manual, the Router mode will be used as a reference.**

1.2 Please define if the equipment's power will be through the PoE input or through the DC Input connector.

- An AC power outlet will be needed if you plan to power up the LP-1540ai through the DC Power input connector, please take precautions for protecting this connection from weather if it is going to be outdoors.

- In regard with data wiring, in this type of powering connection, a data cable must be installed between the LP-1540ai and the corresponding data outlets. In this document in Router mode, both (LAN y WAN) ports must be connected to the corresponding points:

  - From the LP-1540ai LAN port to the internal LAN Switch or the PC's Ethernet port, or to the serviced equipment.
  - From the WAN port of thel LP-1540ai to the Switch or ADSL providing the internet connection.

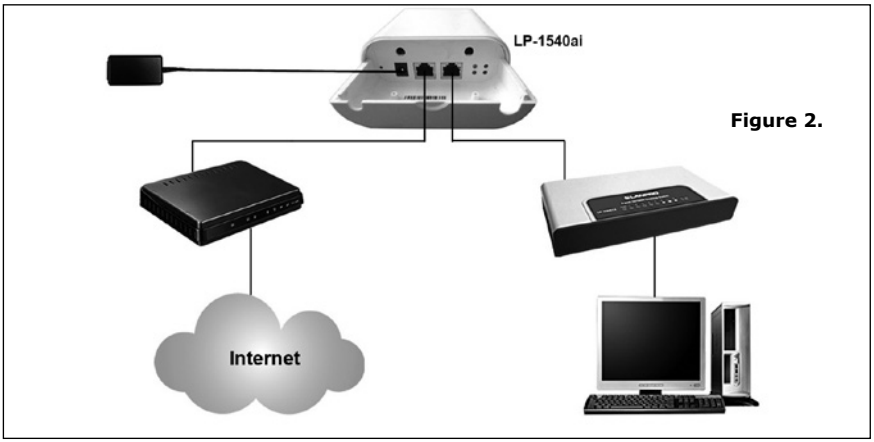

Figure 2.

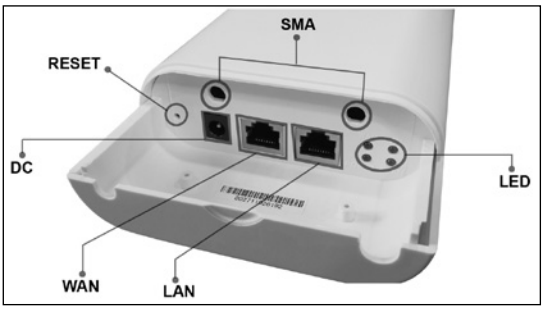

Figure 3.

- If you plan to power your LP-1540ai up with the non-standard PoE injector, please take in mind any distance limitation imposed by losses in the cabling used. A rule of thumb when not sure enough is to limit the distance to 80m, this supposes the use of good wiring standards of workmanship and the following of the local standards.

- In regard with data wiring, in this type of powering connection, a data cable must be installed between the LP-1540ai and the corresponding data outlets. In this document in Router mode, both (LAN y WAN) ports must be connected to the corresponding points.

- From the LAN port of the LP-1540ai to the PoE Injector's PoE port.
- From the LAN port of the PoE injector to the switch in the internal LAN or to the Ethernet port of the PC or equipment to which the service will be delivered.
- WAN port of the LP-1540ai to the Swiche or DSL Internet service provides

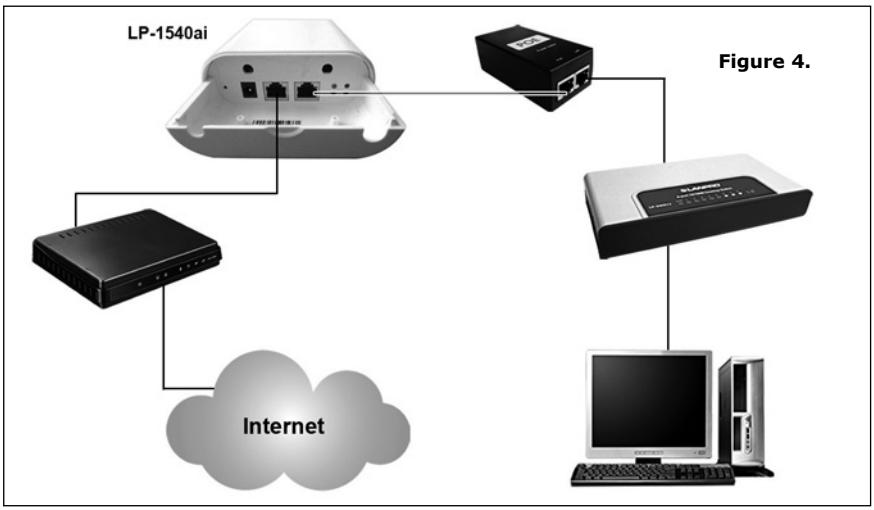

Figure 4.

IMPORTANT WARNING:

This equipment cannot be powered via the two methods at the same time.

1.3 Mounting the equipment on the selected location

- **Outdoors:**
  - Place the equipment with the connectors are located in the lower part of the equipment so there is no water return that could damage the equipment.
  - It must be fixed to a mast or to a wall, depending on your needs.
  - Use the connectors to be used in outdoors.

- **Indoors:**
  - It must be fixed to a mast or to a wall, depending on your needs.

For both mounting methods, please take in mind the RF coverage as per your needs, depending on the integrated antenna aperture.

IMPORTANT NOTE:

Once the cabling is setup and certified the equipment can be connected.

2. Access to the equipment

The **LP-1540ai** supports its configuration via Web Browser or SSH, it is recommended to use Google Chrome. The default **IP address is: 192.168.1.1, user: admin, password: admin**. Please refer to the User Manual for administration and configuration via SSH.

- When accessing the equipment for the first time, you must be in the corresponding network segment. Please configure your network card as follows:

  - Go to Properties of your Network Card as shown in **Figure 5.**

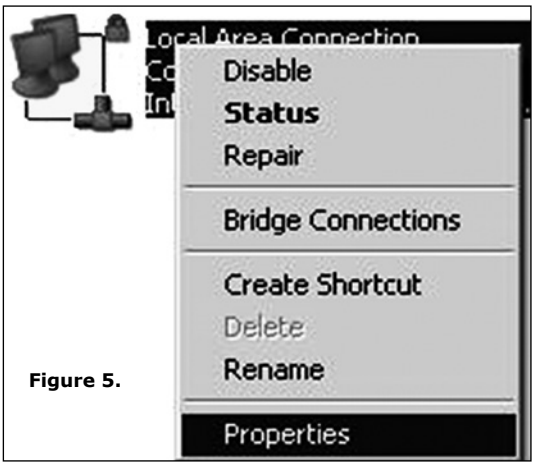

Figure 5.

  - Please select the TCP/IP protocol, and select again Properties, as show in **Figure 6.**

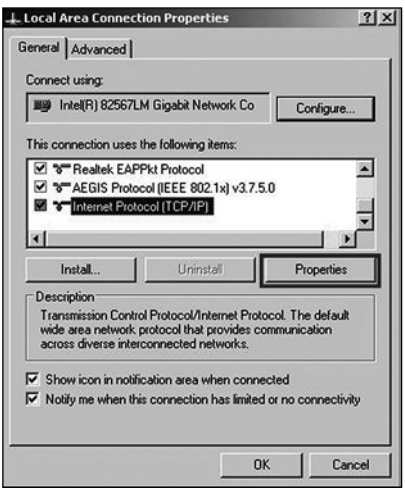

Figure 6.

- Input an IP Address in your Network Card in the same segment of the LP-1540ai, the default IP address of the LP-1540ai is 192.168.1.1, because of this we will 192.168.1.2 in our Network Card, remember taking care of not duplicating IP addresses in the data network, and proceed to select **OK** twice, **Figure 7.**

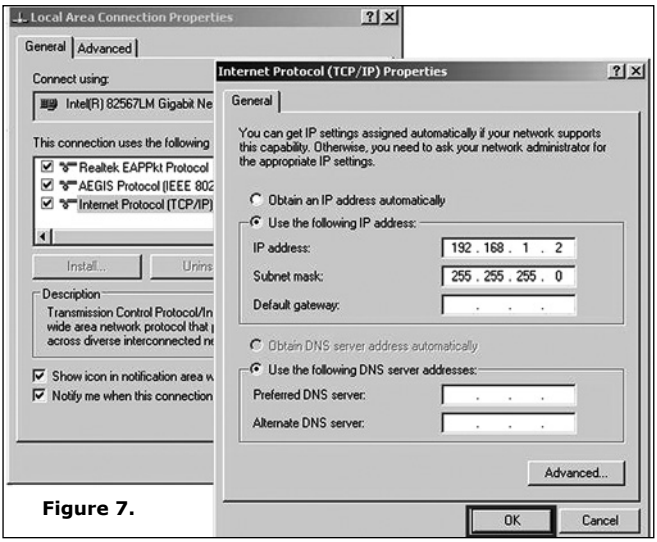

Figure 7.

- Proceed to open the Browser of your choice and input the LP-1540ai IP address: 192.168.1.1, **Figure 8.**

Figure 8.

- The LP-1540ai will prompt your credentials for accessing your configuration, they are by default: **Username: admin** and **Password: admin**, **Figure 9**.

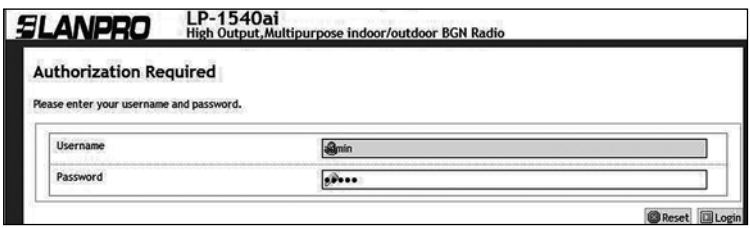

Figure 9.

3. Router Mode pre-loaded template values modification

The template used for Router mode pre-configuration contemplates the following:

- Physical LAN port IP address is: IP 192.168.1.1
- The physical LAN port is DHCP Client and takes its IP address from a ADSL or Internet service with DHCP.
- Wireless adaptor channel is 1.
- The wireless network name is: LanPro LP-1540ai in AP Mode.
- The wired or wireless Access has the DCHP service active and delivers addresses from the 192.168.1.100 to the 150 with a valid time of 12 hours.
- The LAN, WLAN and Vlan (lan) interfaces are in Bridge Mode.
- The encryption mode is WPA2 PSK (CCMP).
- The default password for the wireless connection is: 1234567890

Router mode data table		
Data table	**Description**	**Other data**
Template's description.	Router Mode, ideal for connecting a Router and service distribution to wired or wireless clients.	--
WAN Port	DHCP Client	
LAN Port	192.168.1.1	255.255.255.0
User	admin	
Password	admin	
WLAN	LanPro LP-1540ai	
Channel	1	
Power	27 dBm	501 mW
DHCP WLAN	192.168.1.100 - 150	
Mode	Router	Lease time 12H
LAN - WLAN	Bridged	
Country	USA	
Encriptation	WPA2 PSK	
Password	1234567890	

		Input	**Output**	**Forward**
Firewall Rules	LAN	Accept	Accept	Reject
	WAN	Reject	Accept	Reject

The described values will let you connect the equipment and use it as a Router immediately. If you wish to make changes this list are the more common.

a. Wireless channel change.
b. LAN port IP address.
c. Wireless Access Password change.
d. Equipment Administration and Configuration Access Password change.

Proceed as follows once section 2 (Access to the equipment) of this manual has been performed.

a. Change the wireless channel.

a.1. Select Network, **Figure 10.**

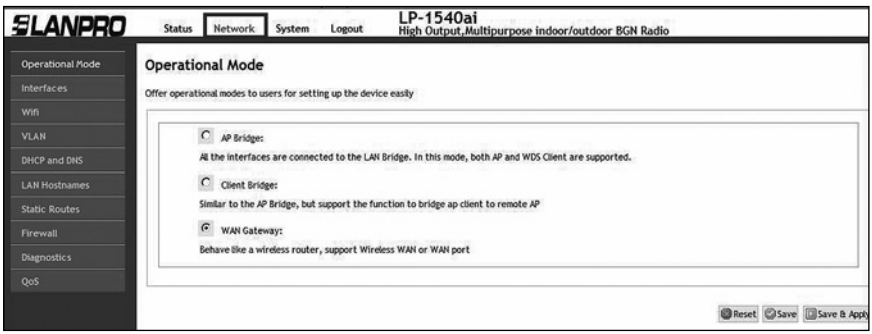

Figure 10.

a.2. Select Wifi, as shown in **Figure 11.**

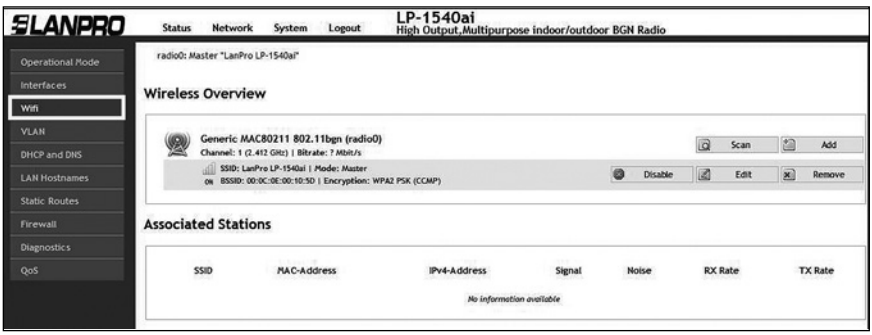

Figure 11.

a.3. Select option **Edit** in the WiFi virtual device, **Figure 12.**

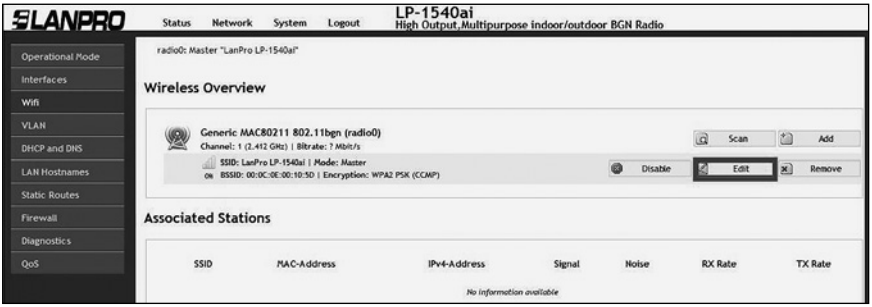

Figure 12.

a.4. Proceed to select the desired channel, **Figure 13.**

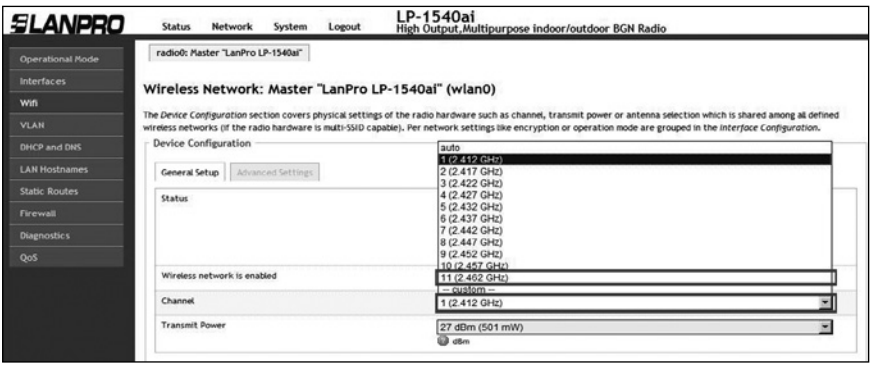

Figure 13.

a.5. Proceed to select option **Save and Apply** as shown in **Figure 14.**

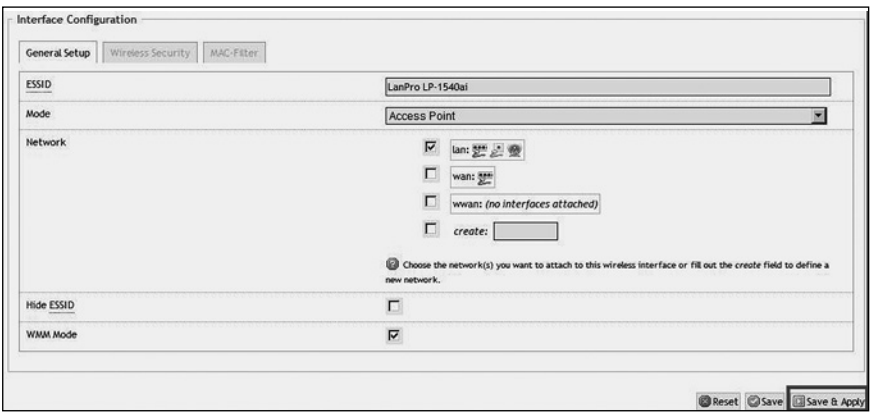

Figure 14.

a.6. Wait for the equipment to re-initialize, **Figure 15.**

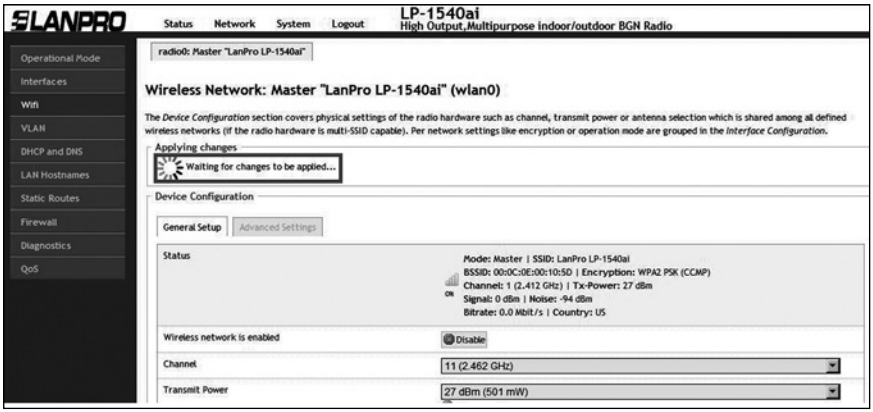

Figure 15.

b. LAN Port IP Address change.

b.1. Select **Network**, **Figure 16.**

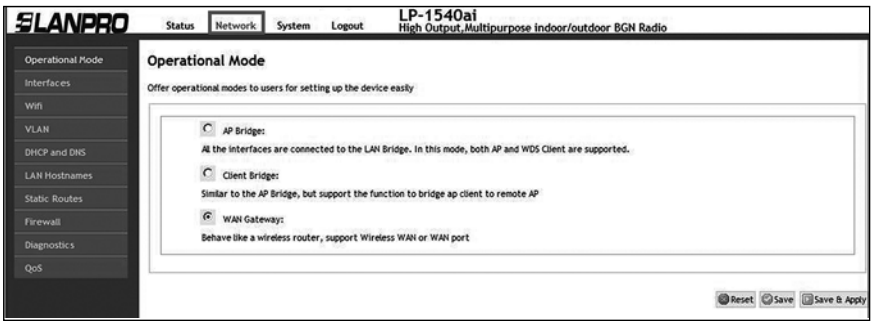

Figure 16.

b.2. Select **Interfaces**, **Figure 17.**

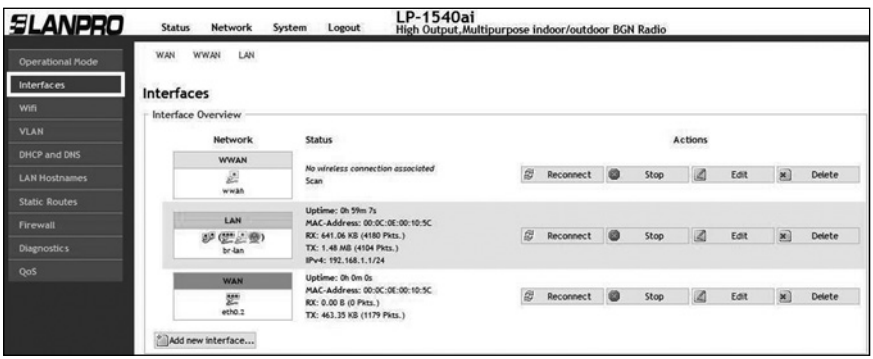

Figure 17.

b.3. Select option **Edit** in the **LAN Interfaces**, **Figure 18.**

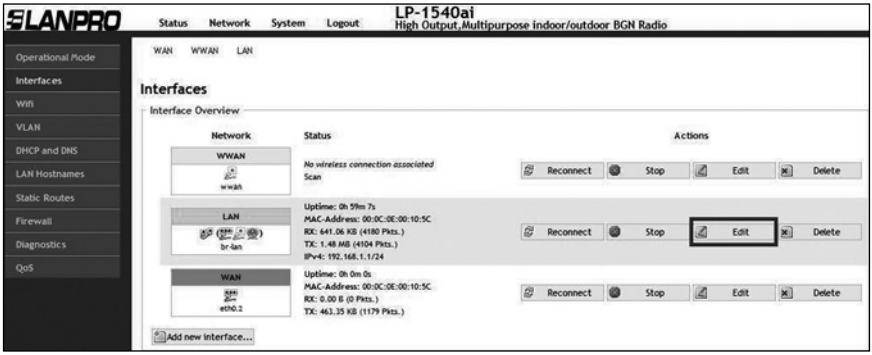

Figure 18.

b.4. Proceed to change the IP address to the desired one in the corresponding box (as shown **Figure 19**), please remember that this change affects the DHCP service's delivery of addresses because it automatically switchs to the same segment and access the equipment under the new IP address. For this to happen you must adjust it as shown in section 2 (**Access to the equipment**) mentioned before.

Figure 19.

b.5. Proceed to select option **Save and Apply**, **Figure 20**.

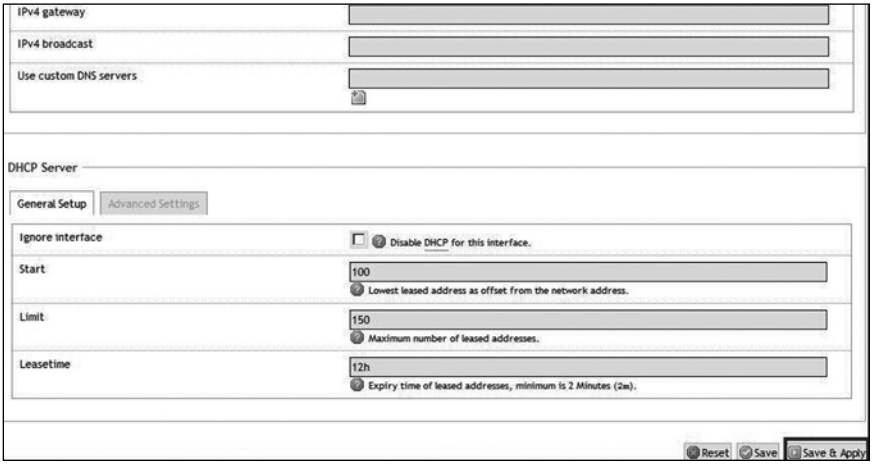

Figure 20.

b.6. Please wait for the application of changes, **(Figure 21)**.

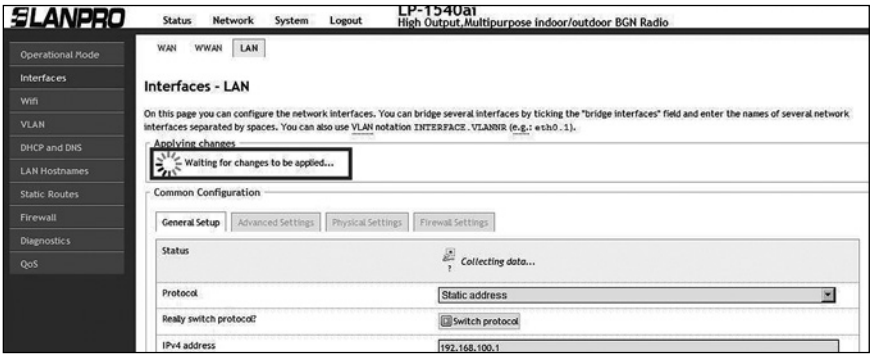

Figure 21.

b.7. Please remember to change the IP address of your network card before a new Access to the equipment is done, as shown in section 2,(**Access to the equipment**) an example is shown in **Figure 22**.

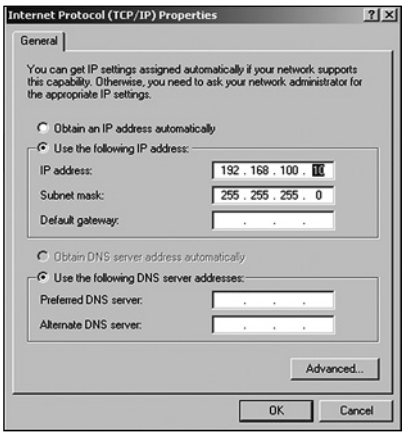

Figure 22.

b.8. Please access the configuration with the new IP address, **Figure 23.**

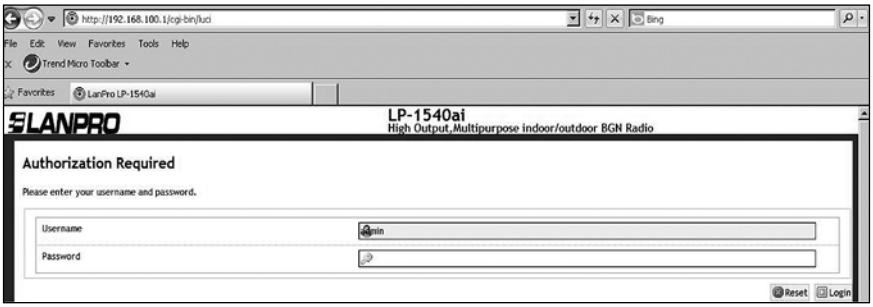

Figure 23.

c. Change the wireless Access password

c.1. Select **Network**, **Figure 24.**

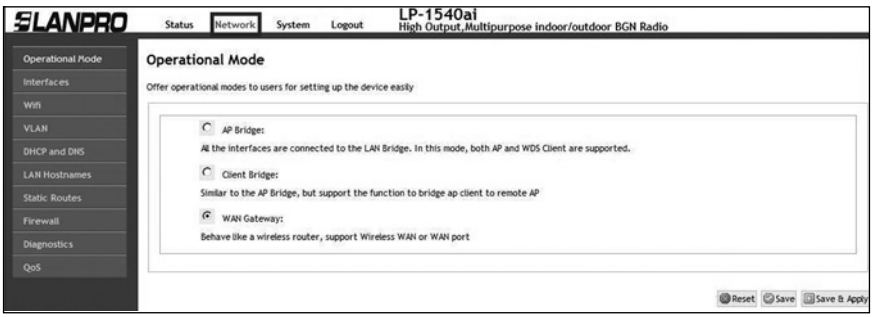

Figure 24.

c.2. Select **Wifi** as shown in **Figure 25.**

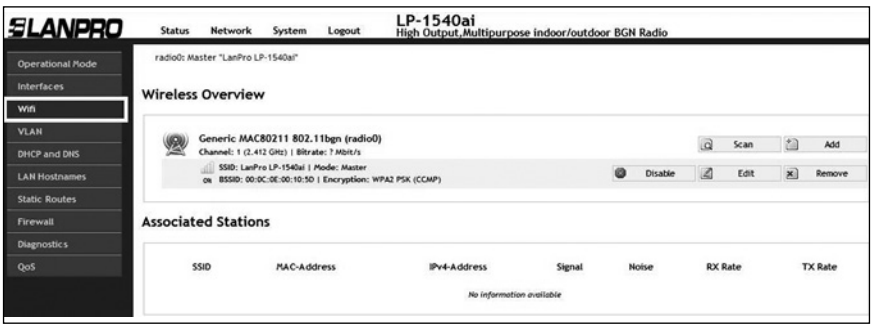

Figure 25.

c.3. Select option **Edit** in the WiFi virtual device, **Figure 26.**

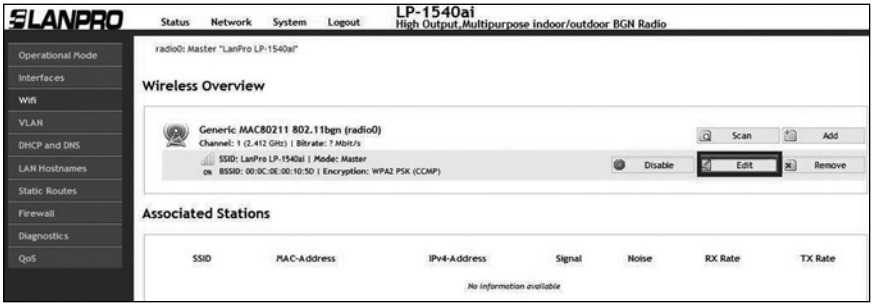

Figure 26.

c.4. Select **Advanced settings, Figure 27.**

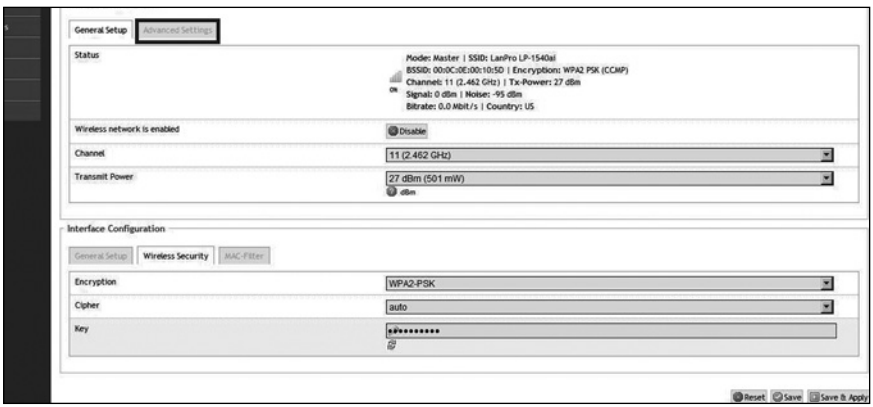

Figure 27.

c.5. Proceed to change the password and select **Save and Apply**, **Figure 28.**

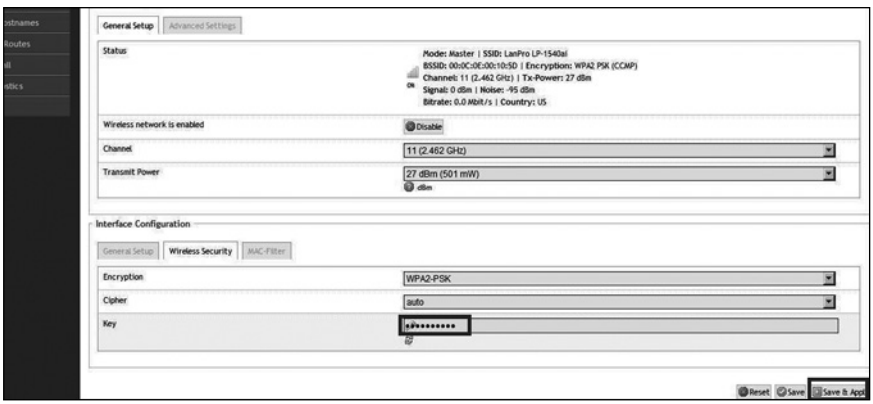

Figure 28.

c.6. Wait until the equipment resets, **Figure 29.**

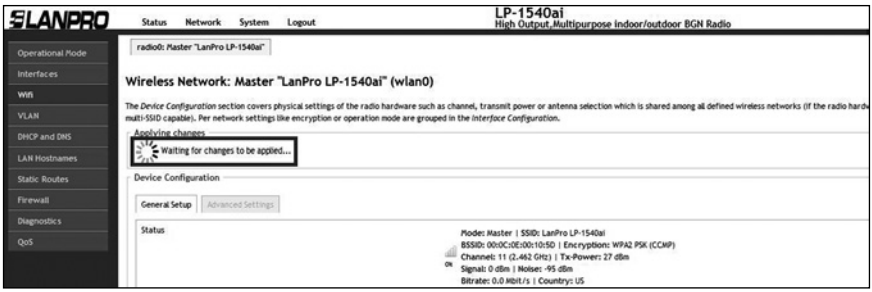

Figure 29.

d. Change of the administration and configuration password of the equipment.

d.1. Select option **System**, as shown in figure **Figure 30.**

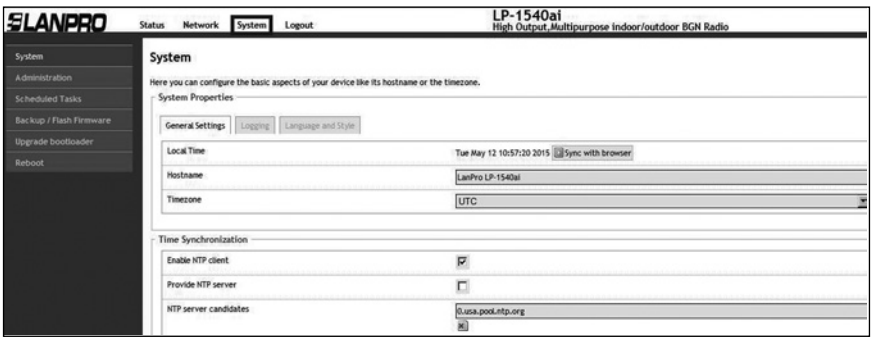

Figure 30.

d.2. Select **Administration**, **Figure 31.**

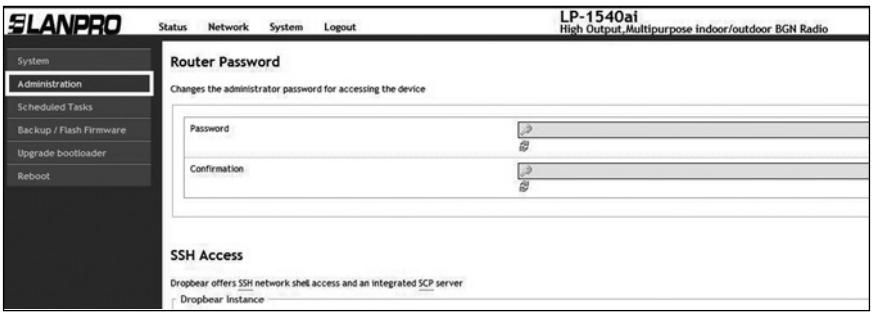

Figure 31.

d.3. Proceed to change the password in both fields as shown in **Figure 32.**

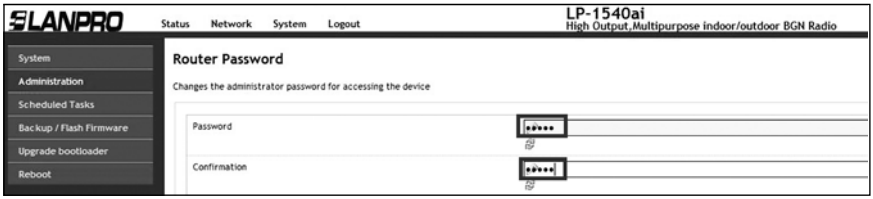

Figure 32.

d.4. Select **Save and apply** to perform the changes, as shown in figure 38 **Figure 33.**

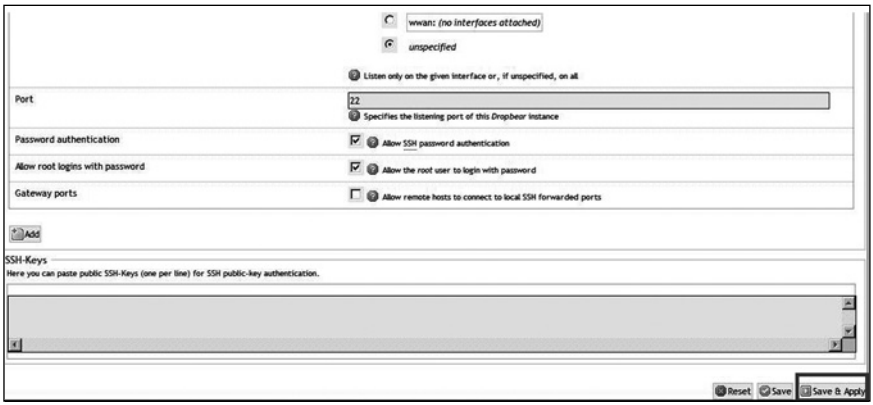

Figure 33.

d.5. Wait for the equipment to reset and access it with the new password, **Figure 34.**

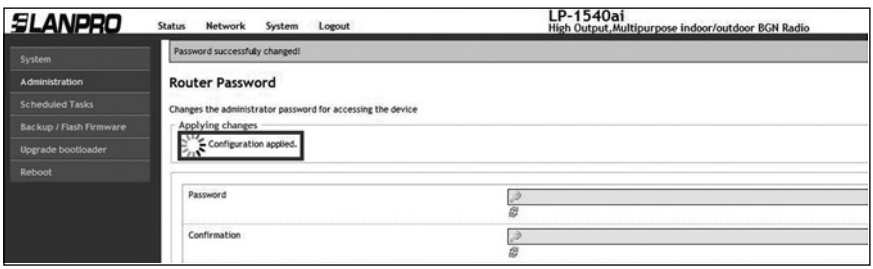

Figure 34.

4. How to add additional pre-configuration templates

a. Select option **System**. **Figure 35**.

Figure 35.

b. **Select Backup/Flash Firmware**, then select **Restore Backup** (choose file), **Figure 36**.

Figure 36.

c. Explore the Template's folder and select the desired one, then select **Open**, as shown in **Figure 37**.

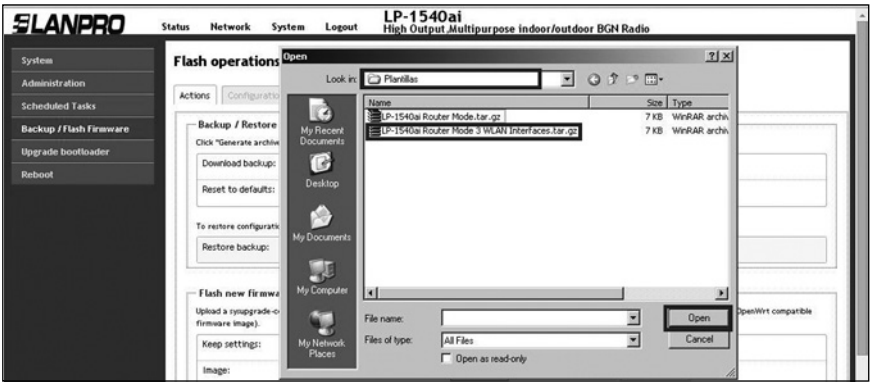

Figure 37.

d. Proceed to select option **Upload archive**, **Figure 38**.

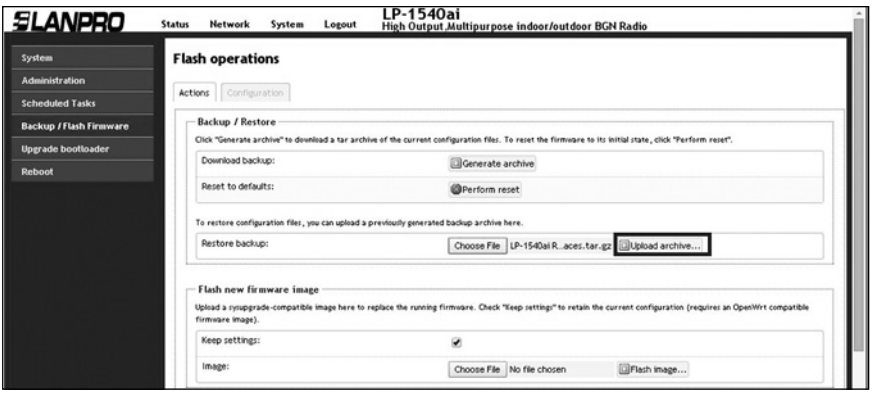

Figure 38.

e. The equipment will proceed to upload the template's values and reinitialize, as shown in **Figure 39**, please wait until the equipment asks for the credentials again.

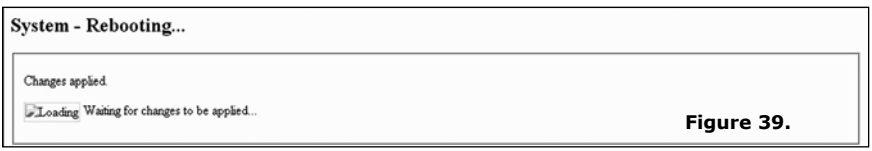

Figure 39.

f. The equipment will ask for your credentials again, **Figure 40.**

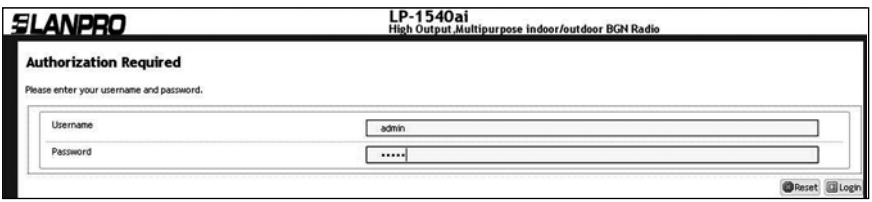

Figure 40.

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