

## Instructions for setting up a guest WLAN with Nuclias Connect

DNC-100 or DNH-100

With Managed Switch DGS-1210 and a Fritzbox

To set up a guest Wi-Fi in addition to the main Wi-Fi, you need to enable an additional SSID in the DNC/DNH-100.

To prevent communication between the main and the guest WLAN, VLANs are used. This requires a managed switch, in this manual a DGS-1210 Rev.D.

A Fritzbox is used as an Internet gateway (router).

In this case, we make use of the guest access on LAN port 4 of the Fritzbox.

Here in the example:

- Connect the Fritzbox with its LAN port 1 , 2 or 3 to LAN port 1 of the DGS-1210.
- Connect the **DNC-100-PC/DNH-100** to LAN port 8 of the DGS-1210.
- Connect the DAP access point to LAN port 15.

Page 1: [Setting up the Fritzbox](#)

Page 3: [Setting up DGS-1210](#)

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### Setting up the Fritzbox

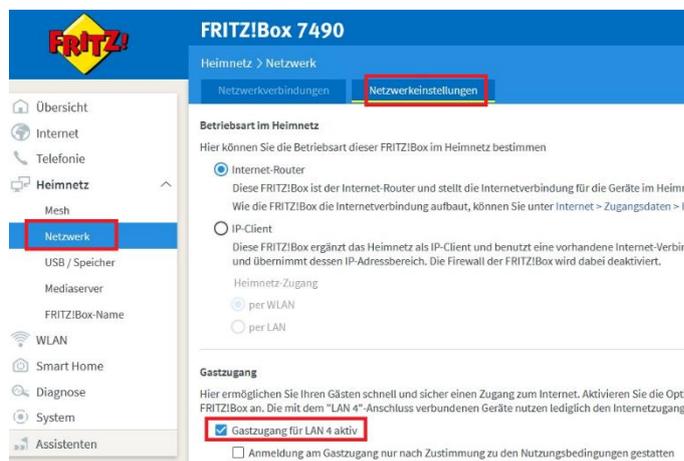
1. Call up the configuration of your Fritzbox and log in.



2. Select the **Heimnetz** menu on the left, then **Netzwerk** and then **Netzwerkeinstellungen**.

At **Gastzugang** activate the **Gastzugang für LAN 4**.

Click **Apply** at the bottom right.



3. Slide the window that appears all the way to the bottom.  
At the bottom left, under **WAN-Einstellungen**, click **weitere Einstellungen**.

Slide the window that appears all the way to the bottom.  
On the right, click **IPv4-Einstellungen**.



**The DHCP server must be enabled.**

Below you can see the IP network, which the Fritzbox will assign to the **Gastnetz**.

If you have made a change, click **OK**.

**Heimnetz**

IPv4-Adresse: 192 . 168 . 1 . 1  
Subnetzmaske: 255 . 255 . 255 . 0

DHCP-Server aktivieren

DHCP-Server vergibt IPv4-Adressen

von: 192 . 168 . 1 . 20  
bis: 192 . 168 . 1 . 200  
Gültigkeit: 10 Tage

Die vergebenen IP-Adressen werden nach Ablauf der Gültigkeit wieder freigegeben.  
Wenn Sie einen anderen DNS-Server in Ihrem Heimnetz verwenden möchten, tragen Sie hier dessen IP-Adresse ein, damit die FRITZ!Box diese den Geräten im Heimnetz bekannt gibt.  
Lokaler DNS-Server: 192 . 168 . 1 . 1

**Gastnetz**

Das Gastnetz der FRITZ!Box hat einen eigenen IP-Adressbereich, aus dem die FRITZ!Box den Gästen die IP-Adressen vergibt. Der Adressbereich wird von der FRITZ!Box festgelegt und ist nicht veränderbar.

IPv4-Adresse: 192 . 168 . 189 . 1  
Subnetzmaske: 255 . 255 . 255 . 0  
Gültigkeit: 6 Stunden

Die vergebenen IP-Adressen werden nach Ablauf der Gültigkeit wieder freigegeben.

OK Abbrechen

The configuration of the Fritzbox is now complete.  
Now turn to the DGS-1210.

## Very important:

**Do not connect the LAN port 4 of the Fritzbox to the LAN port 4 of the DGS-1210 yet.**  
This will only happen at the very end.

## Setting up the DGS-1210

1. Go to the configuration of the DGS-1210.  
Please follow the instructions in the manual of the DGS-1210.

In this example, the DGS-1210 already has an IP address that matches the network.

Log in.

The default **password** is **admin**. Please leave the language in English.

Click **OK**.



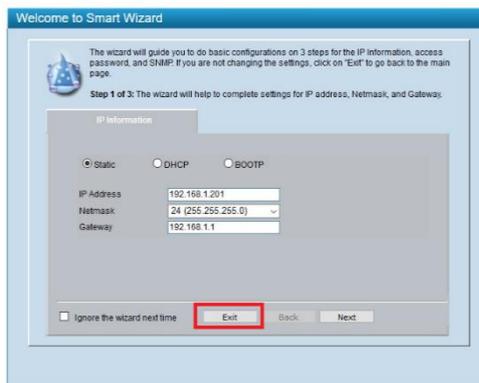
Connect to 192.168.1.201

Password: [masked]

Language: English

OK Cancel

2. If necessary, click **Exit**.



Welcome to Smart Wizard

The wizard will guide you to do basic configurations on 3 steps for the IP information, access password, and SNMP. If you are not changing the settings, click on 'Exit' to go back to the main page.

Step 1 of 3: The wizard will help to complete settings for IP address, Netmask, and Gateway.

IP Information

Static  DHCP  BOOTP

IP Address: 192.168.1.201

Netmask: 24 (255.255.255.0)

Gateway: 192.168.1.1

Ignore the wizard next time

Exit Back Next

3. Note: Under **System Settings**, adjust the IP address setting of the DGS-1210 to the IP network of your network if necessary.



Save Tools Wizard Help English

DGS-1210-16

System Settings

System Settings

IP Information

Static  DHCP  BOOTP

IP Address: 192.168.1.201

Netmask: 24 (255.255.255.0)

Gateway: 192.168.1.1

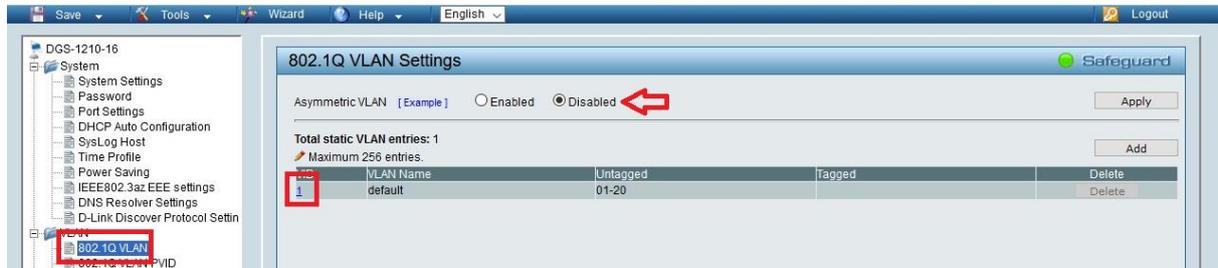
Apply

## The required VLAN configuration in the DGS-1210

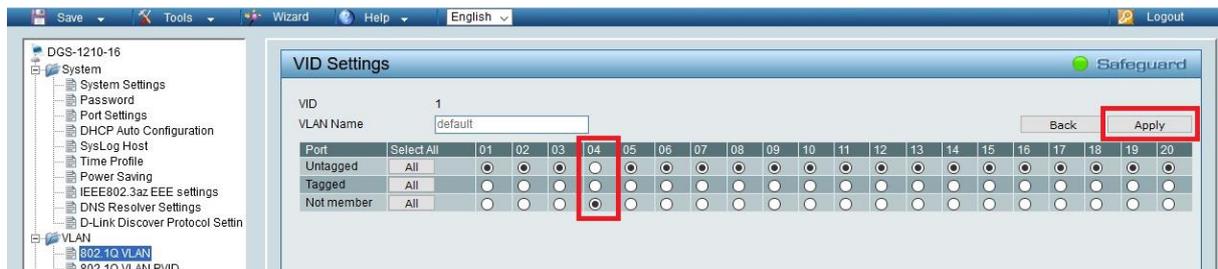
4. Select the VLAN → **802.1Q VLAN** menu on the left.

**Asymmetric VLAN** must be disabled.

Click on the **default** VLAN 1.



5. Since the guest network LAN port 4 of the Fritzbox will be connected to LAN port 4 of the DGS-1210, set port 4 to **Not Member** and click **Apply**.



6. Click **Add** to create an additional VLAN.



7. At **VLAN ID (VID)** enter 10.

**VLAN Name** is e.g. **GuestWLAN**

Set port **4** to **Untagged** and port **15** to **Tagged**

Later at Port 4 the Guestnetwork port 4 of the Fritzbox will be connected.

At Port **15** the DAP is connected.

**Important:**

If you use several DAPs, which is to be assumed, you must set this VLAN to Tagged for all LAN ports of the switch to which the DAPs will be or are already connected!

Click **Apply**.



8. The result:



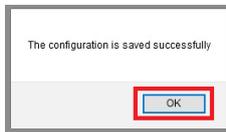
9. Click on **Save** in the upper left corner and then on **Save Configuration** to save the settings permanently in the DGS-1210.



10. Click **Save Config...**



... and then click **OK**.



The configuration of the DGS-1210 is now complete.  
Now turn to the Nuclias Connect DNC-100/DNH-100.

## The required settings in the DNC-100/DNH-100

These instructions assume that you are already using the DNC-100/DNH-100, or at least that you have already played through the setup wizard.

1. Go to the configuration of the DNC-100/DNH-100 and log in.

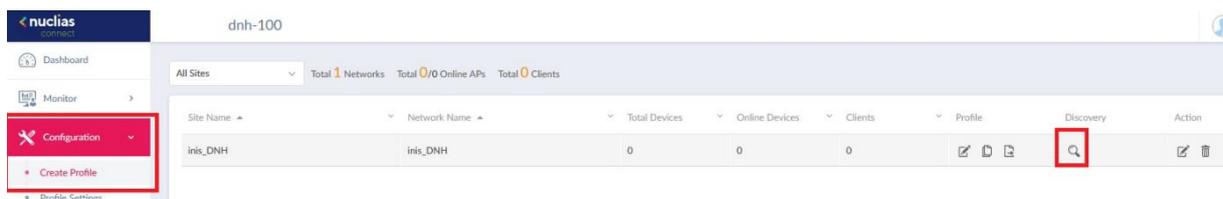
Please leave the language or change it to English.



2. If the DAP access point is not yet mounted, do so now.

Otherwise, continue to [point 8](#) on page 10.

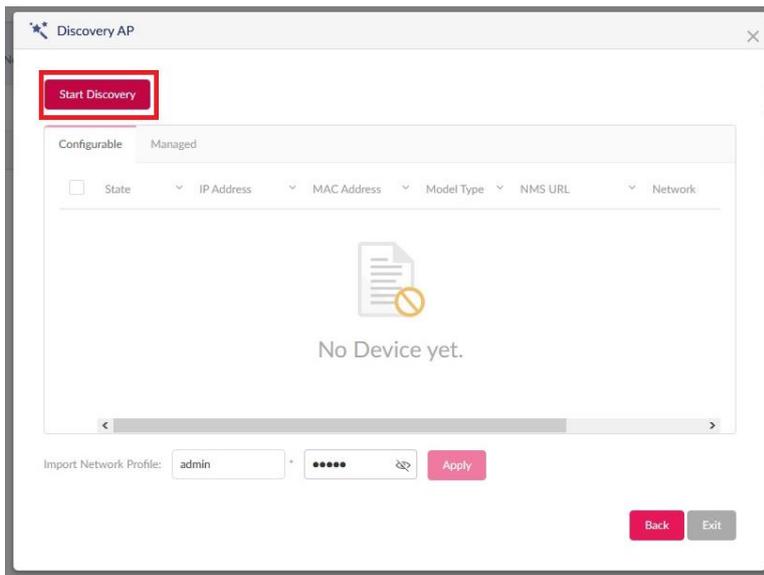
On the left go to **Configuration** and then **Create Profile**. Then click on the **magnifying glass** to search for DAPs.



3. Click **Next**.

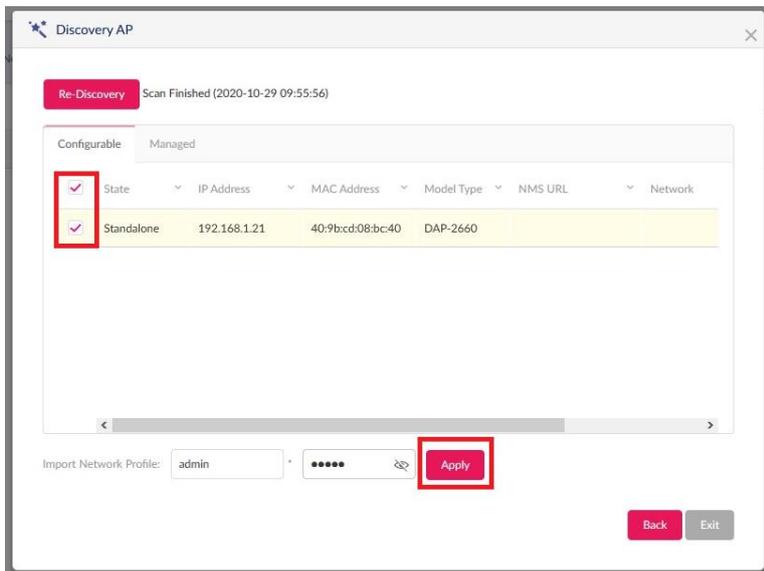


4. Click **Start Discovery**.



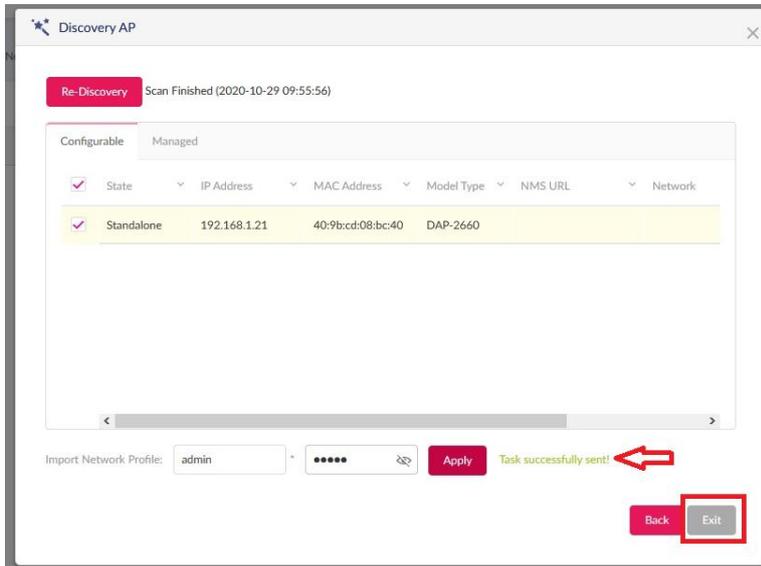
5. The DAP will be found. In this example a DAP-2660.

Check the box in front of the DAP you found and click **Apply**.

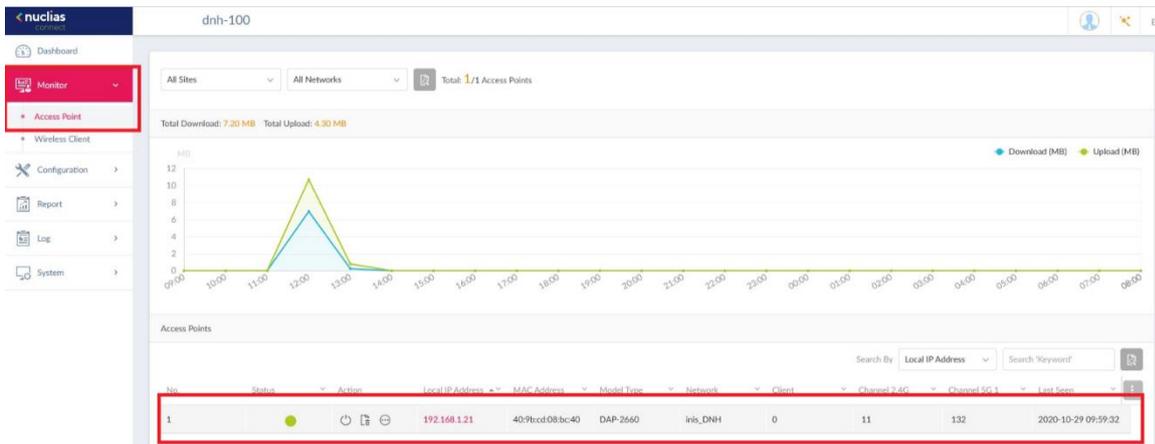


6. Task successfully sent appears.

Please wait 15-20 seconds and then click **Exit**.



7. On the left at **Monitor -> Access Point**, the integrated DAP is marked in green after a few minutes.

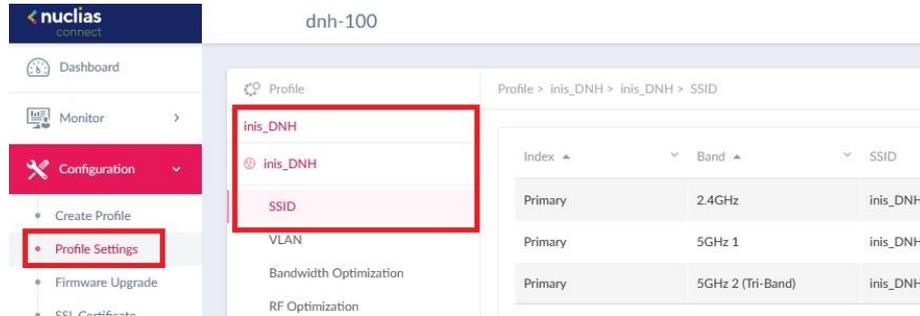


8. Now create a second SSID for the guest Wi-Fi in addition to your main Wi-Fi.

On the left select **Configuration** and then select **Profile Settings**.

Go to **SSID** in your profile.

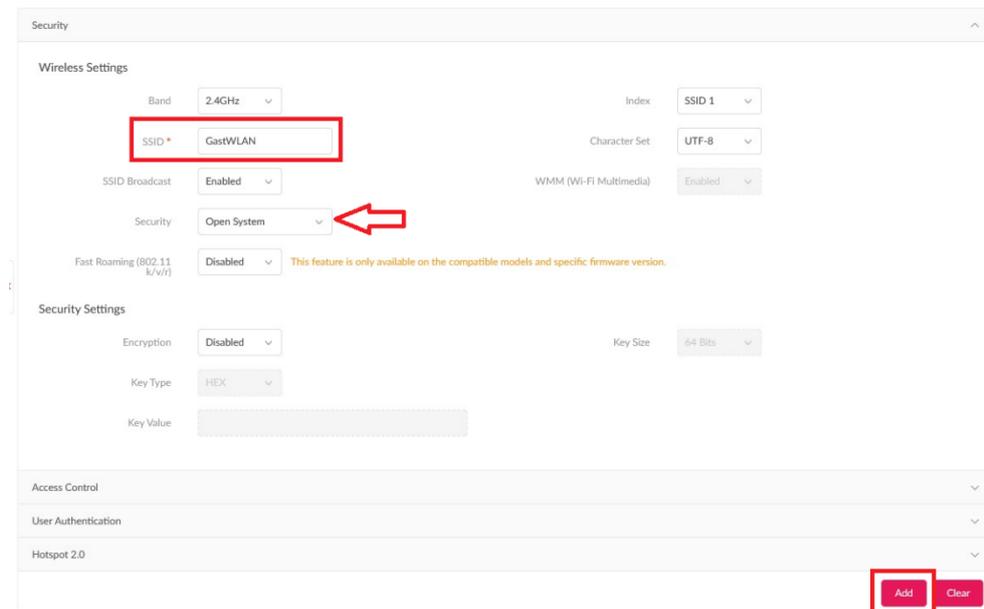
Please **DO NOT** click on one of the primary WLANs.



9. In the **Security** section at SSID, enter the **SSID** for the guest WLAN.

In this example the guest Wi-Fi will be unencrypted and has no other authentication. Therefore let the **Security** as **Open System**.

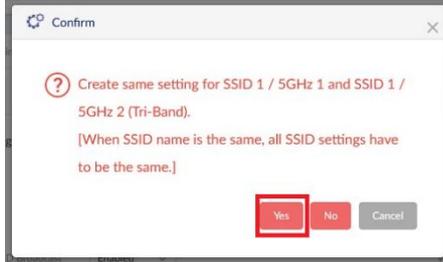
Click **Add** at the bottom right.



10. The question appears if the setting should be applied to the other radio band.  
Click **Yes**.

Note:

If you click No, you must repeat step 9 for the other radio band (with a different SSID).



11. In addition to the **primary** WLAN, the result is a **SSID 1** for the guest WLAN:

Index	Band	SSID	Security	Access Control	User Authentication	Action
Primary	2.4GHz	inis_DNH	WPA-Auto-Personal	Disabled	Disabled	
Primary	5GHz 1	inis_DNH	WPA-Auto-Personal	Disabled	Disabled	
Primary	5GHz 2 (Tri-Band)	inis_DNH	WPA-Auto-Personal	Disabled	Disabled	
SSID 1	2.4GHz	GuestWLAN	Open System	Disabled	Disabled	
SSID 1	5GHz 1	GuestWLAN	Open System	Disabled	Disabled	
SSID 1	5GHz 2 (Tri-Band)	GuestWLAN	Open System	Disabled	Disabled	

12. Now click on the **VLAN** menu on the left.

At **VLAN Status** select **Enabled** and click **Save**.

At **VLAN 1** click the **Edit** icon under Action.

VLAN VID	VLAN Name	Tag VLAN Ports	Untag VLAN Ports	Action
1	default		Management, LAN1, LAN2, Primary (2.4G), SSID1 (2.4G), SSID2...	

13. Set **SSID 1** to **Not Member** on all three radio bands.

Click **Save** at the bottom-right.

The screenshot shows a configuration page for wireless settings. It is divided into three sections: 2.4GHz, 5GHz 1, and 5GHz 2 (7th Band). Each section has a table with columns for 'Port', 'Select All', 'Primary', and SSID 1 through SSID 7. In each section, the 'Not Member' radio button for SSID 1 is selected and highlighted with a red box. At the bottom right, there are 'Save' and 'Cancel' buttons, with the 'Save' button also highlighted by a red box.

14. Select the **Add/Edit VLAN** tab on the top.

At **VLAN ID (VID)** enter the same ID **10** this was previously used/added in the DGS-1210 and enter a **VLAN name**, e.g. GuestWLAN.

The screenshot shows the VLAN configuration page. At the top, there is a 'VLAN Status' dropdown set to 'Enabled' and a 'Save' button. Below this is a tabbed interface with 'Add/Edit VLAN' selected and highlighted by a red box. The 'VLAN ID (VID)' field contains the number '10' and the 'VLAN Name\*' field contains 'GuestWLAN'. Both fields are highlighted with red boxes.

15.

- The management **mgmt** set you to **Not Member**.
- **LAN 1** and **2** remain/set on **Tag**.

- Set **SSID 1** of all three radio bands to **Untag**.
- **All others** set to **Not Member**.

Then click **Add** at the bottom-right.

Port	Select All	Mgmt	LAN1	LAN2
Untag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tag	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Not Member	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

2.4GHz									
Port	Select All	Primary	SSID 1	SSID 2	SSID 3	SSID 4	SSID 5	SSID 6	SSID 7
Untag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not Member	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

5GHz 1									
Port	Select All	Primary	SSID 1	SSID 2	SSID 3	SSID 4	SSID 5	SSID 6	SSID 7
Untag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not Member	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

5GHz 2 (Tri-Band)									
Port	Select All	Primary	SSID 1	SSID 2	SSID 3	SSID 4	SSID 5	SSID 6	SSID 7
Untag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not Member	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

**Add**

16. The result:

VLAN Status: Enabled Save VLAN status successfully saved

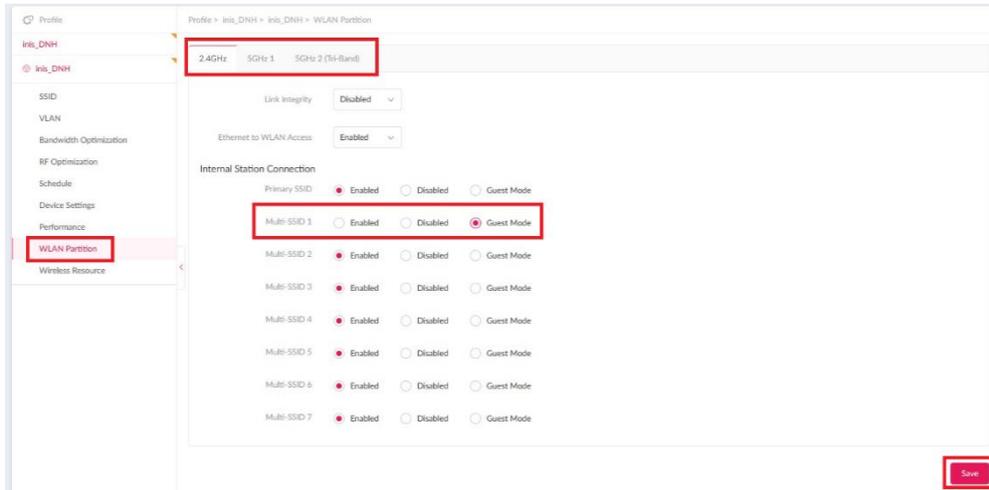
VLAN VID	VLAN Name	Tag VLAN Ports	Untag VLAN Ports	Action
1	default		Management , LAN1, LAN2, Primary (2.4G), SSID1 (2.4G), SSID2...	
10	GastWLAN	LAN1, LAN2	SSID1 (2.4G), SSID1 (5G 1), SSID1 (5G 2)	

### 17. Hint

In a guest WLAN the clients should normally not be able to communicate with each other, they should be isolated from each other.

To realize this, select the **WLAN Partition** menu on the left.

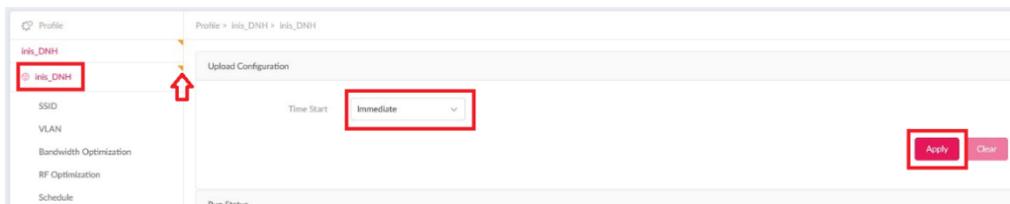
Set **Multi-SSID 1** to **Guest Mode** for 2,4 GHz and then click **Save** at the bottom-right. Do the same with the other Wi-Fi bands.



18. Finally transfer the settings you have made into the DAP.

On the left your profile is marked with yellow sign even when settings are made/changes in the DNH-100/DNC-100 profile but not yet transferred into the DAP.

- Click on your profile.
- **Time Start** is **immediate**.
- Click **Apply**.



After a few minutes the settings are active in the DAP.

The setup of the Guest-WLAN in the DNH-100/DNC-100 is also complete.

**Please note:**

Is the DAP's 5 GHz Wi-Fi running on a DFS channel (52-64 or 100-140)  
it takes up to 5 minutes for the 5 GHz Wi-Fi to be available.

**Very important:**

**Now connect the LAN port 4 of the Fritzbox to the LAN port 4 of the DGS-1210**

Then you can then connect Wi-Fi clients to the guest Wi-Fi network of the DAP access points.  
These obtain an IP address from the guest network of the Fritzbox and have Internet access via it.