ACKSYS
COMMUNICATIONS & SYSTEMS

APPLICATION NOTE

APNUS013 NAT Configuration example

For WaveOS

May 2020 – Rev. A1

CONFIGURING A WAVEOS PRODUCT IN NAT MODE

Desired NAT configuration:

- Private network (LAN): 192.168.100.100/24
- Public network (WLAN): 192.168.1.10/24

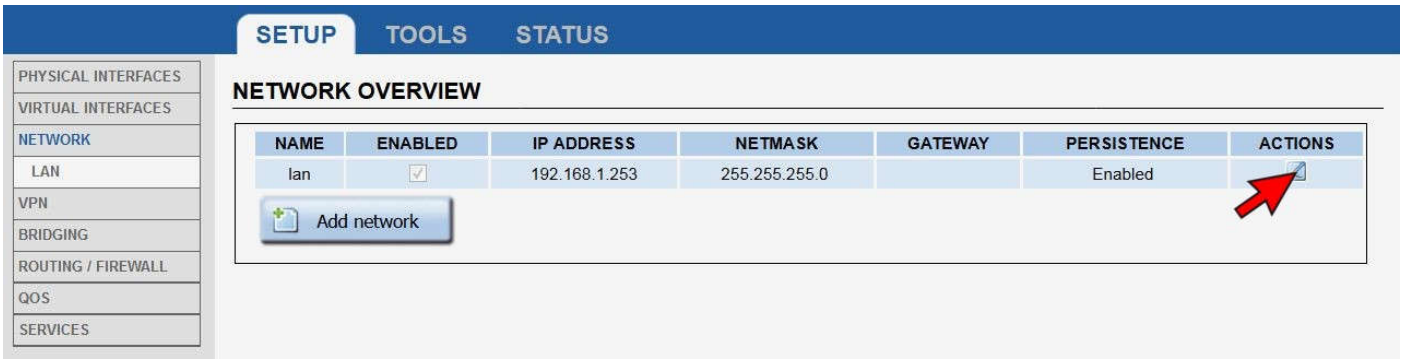
Translation rules:

- PLC_MASTER: TCP 192.168.1.10: 8080 translated to 192.168.100.101: 80
- PLC_IO : UDP 192.168.1.10: 4200 translated to 192.168.100.101: 4200

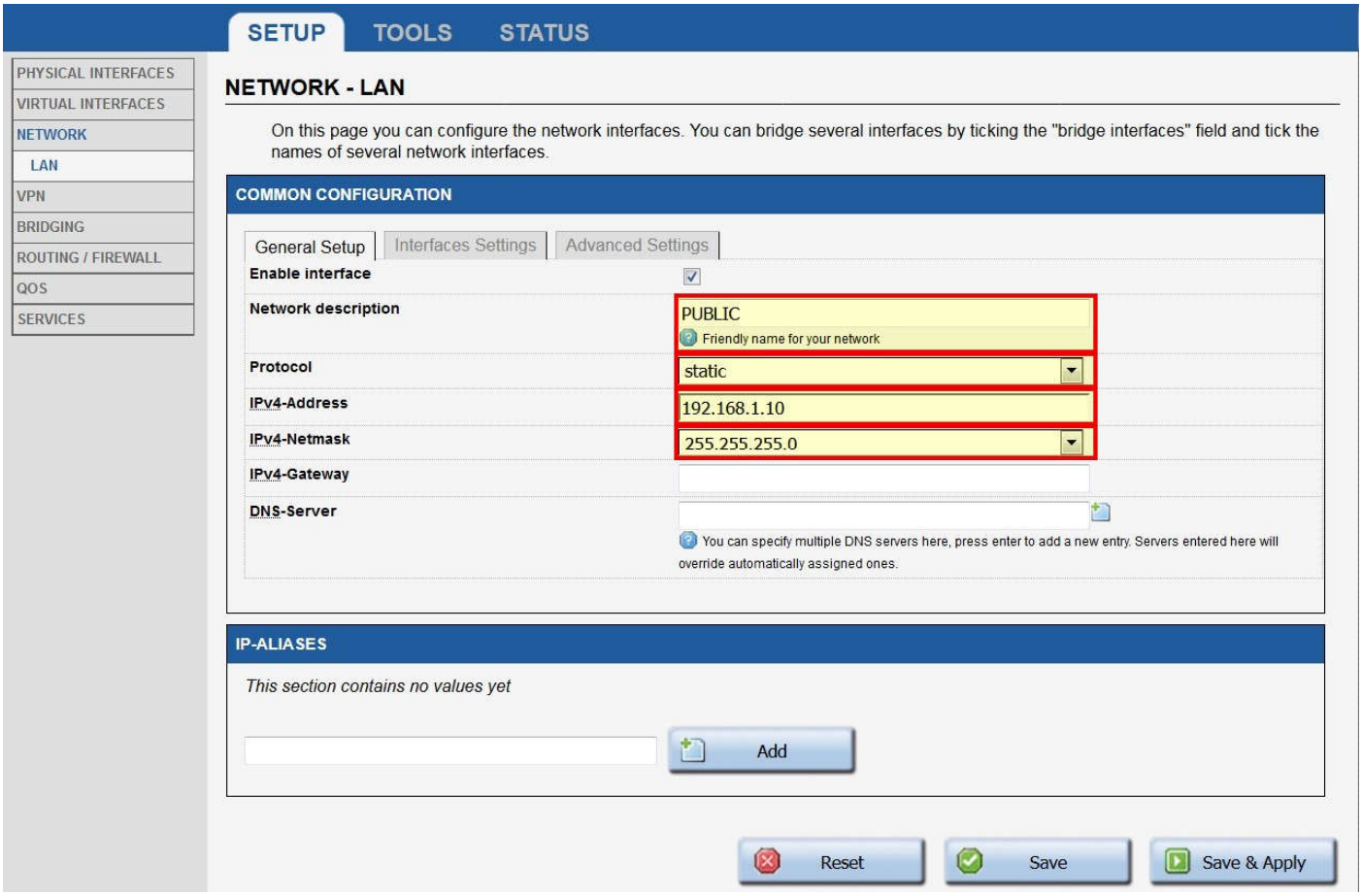
Private side (LAN):

Default gateway = 192.168.100.100 (or route 192.168.1.0/24 to 192.168.100.100)

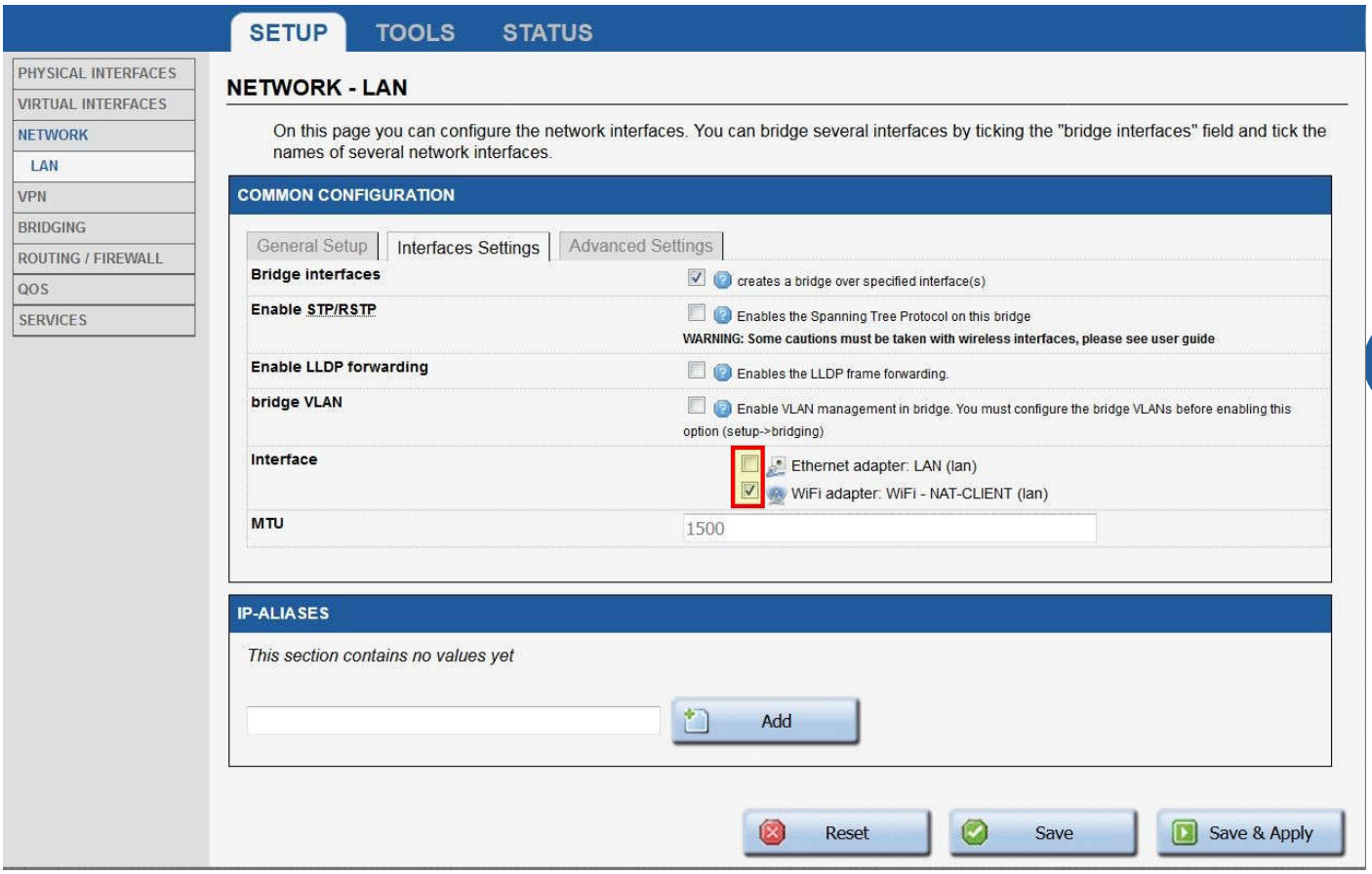
After configuring the WiFi settings, go to **SETUP/NETWORK** and edit the default network (**lan**):



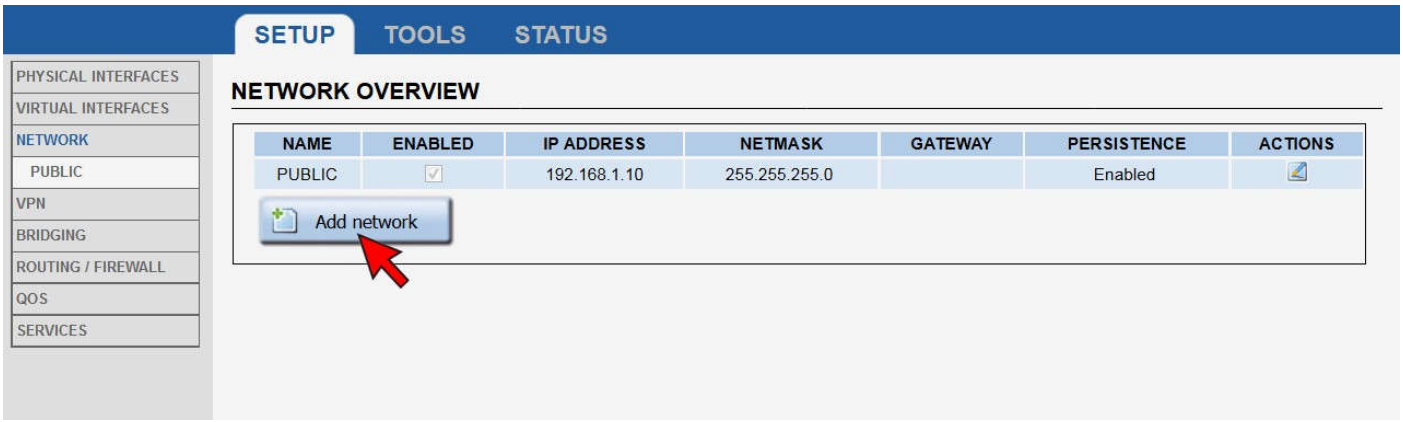
Rename the network as **PUBLIC** and fill in the required fields. Then go to the **Interfaces Settings** tab



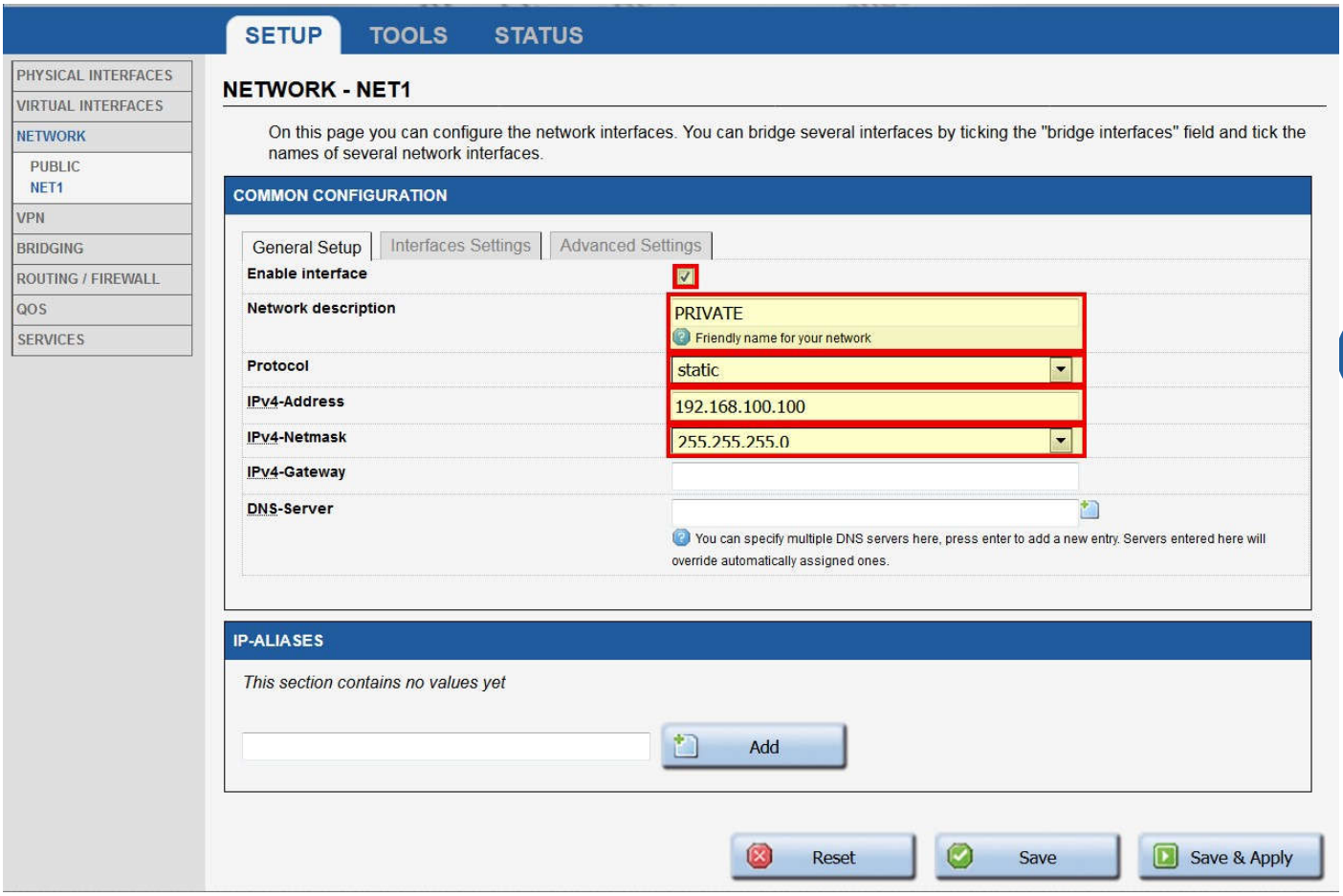
Uncheck the **Ethernet adapter** checkbox, then **Save**



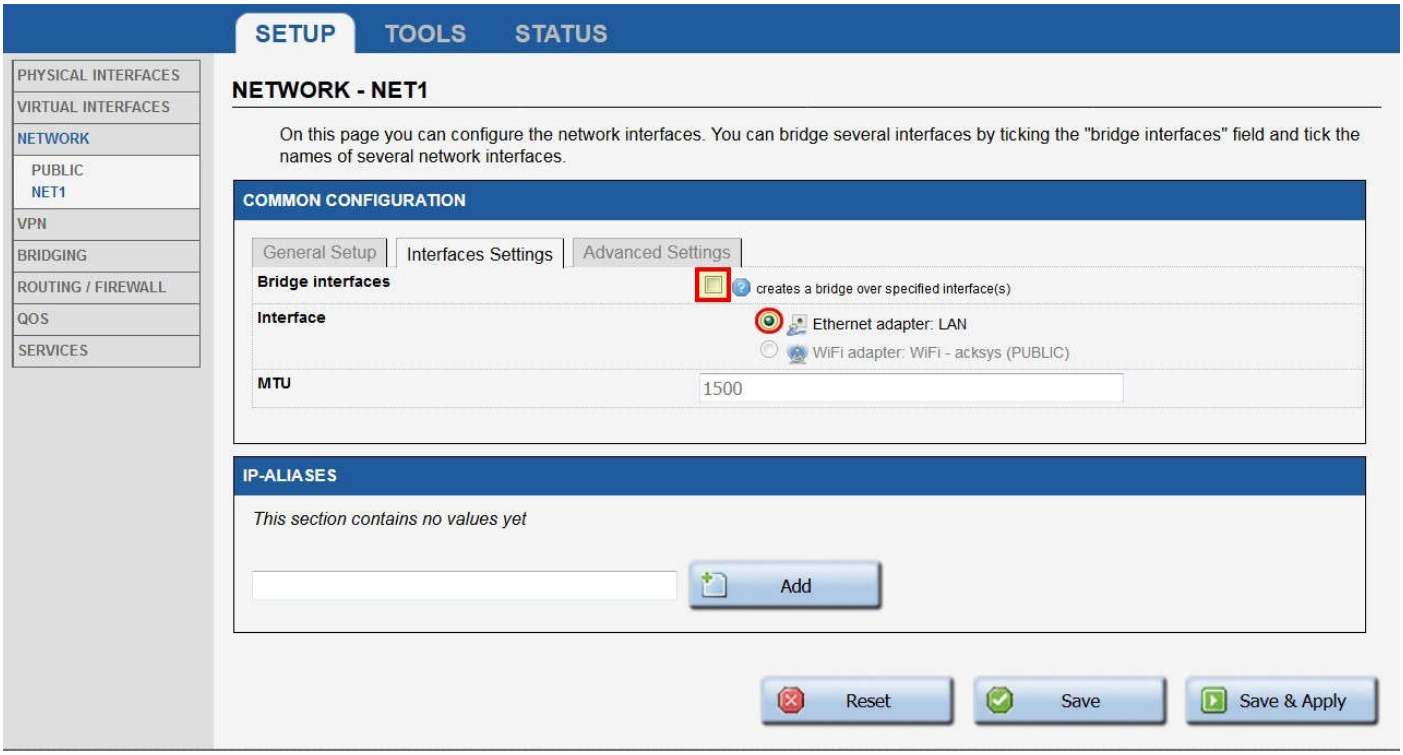
Click **NETWORK** on the left to return to **NETWORK OVERVIEW**. Click on **Add Network**



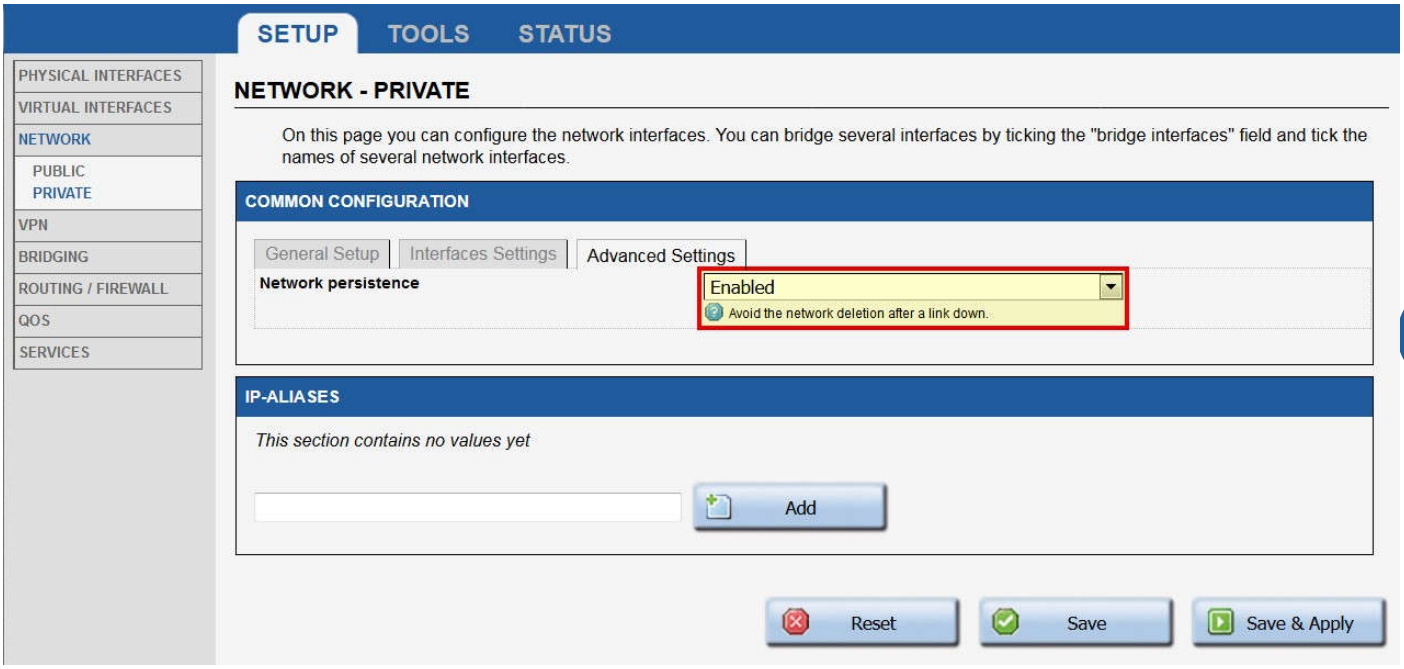
Name the network **PRIVATE** and fill in the required fields, then switch to the **Interfaces Settings** tab



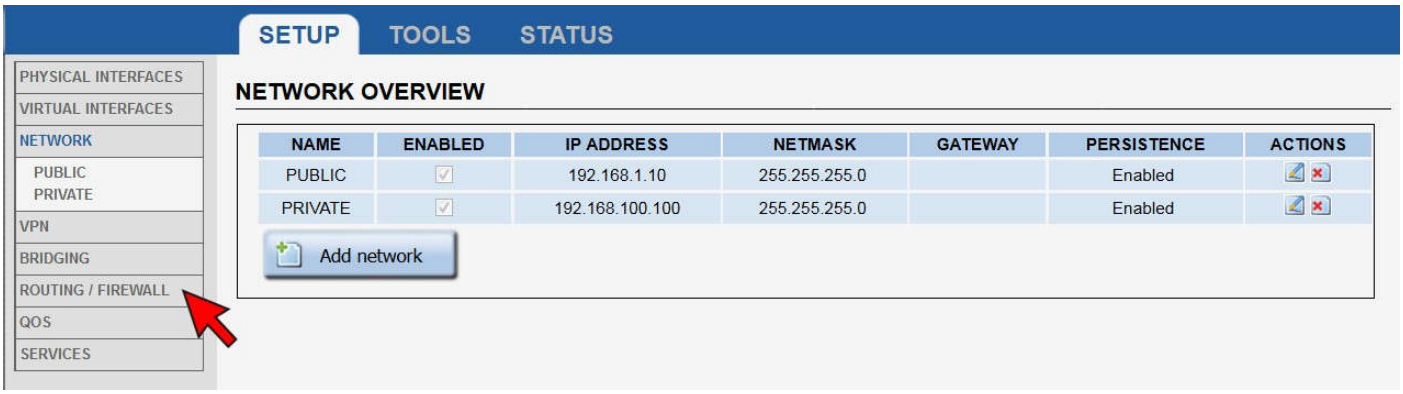
Uncheck the **Bridge interfaces** box and select **Ethernet adapter LAN**



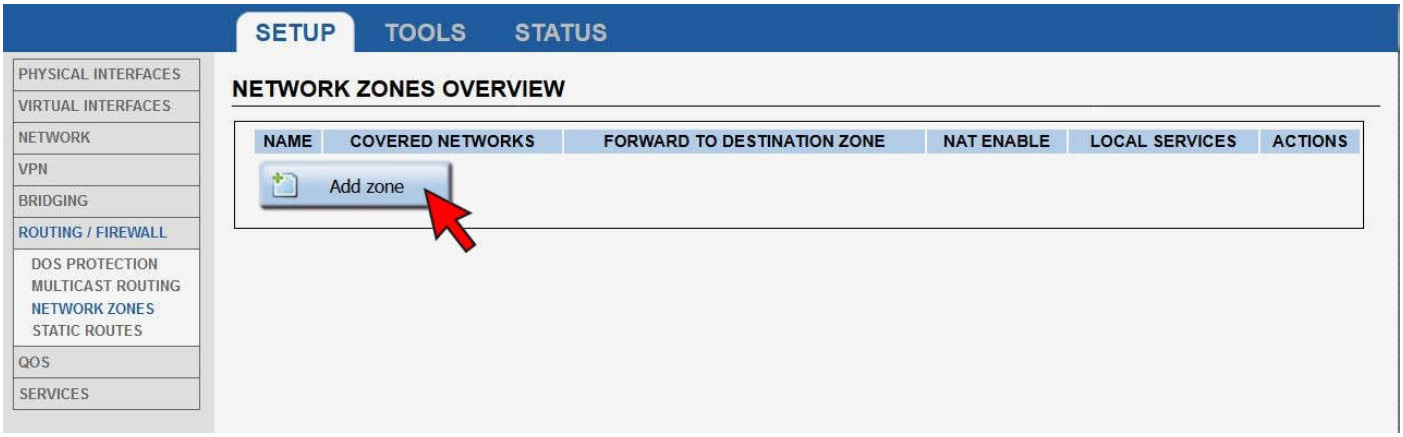
In the **Advanced settings** tab, check that the network persistence is **Enabled** then **Save**



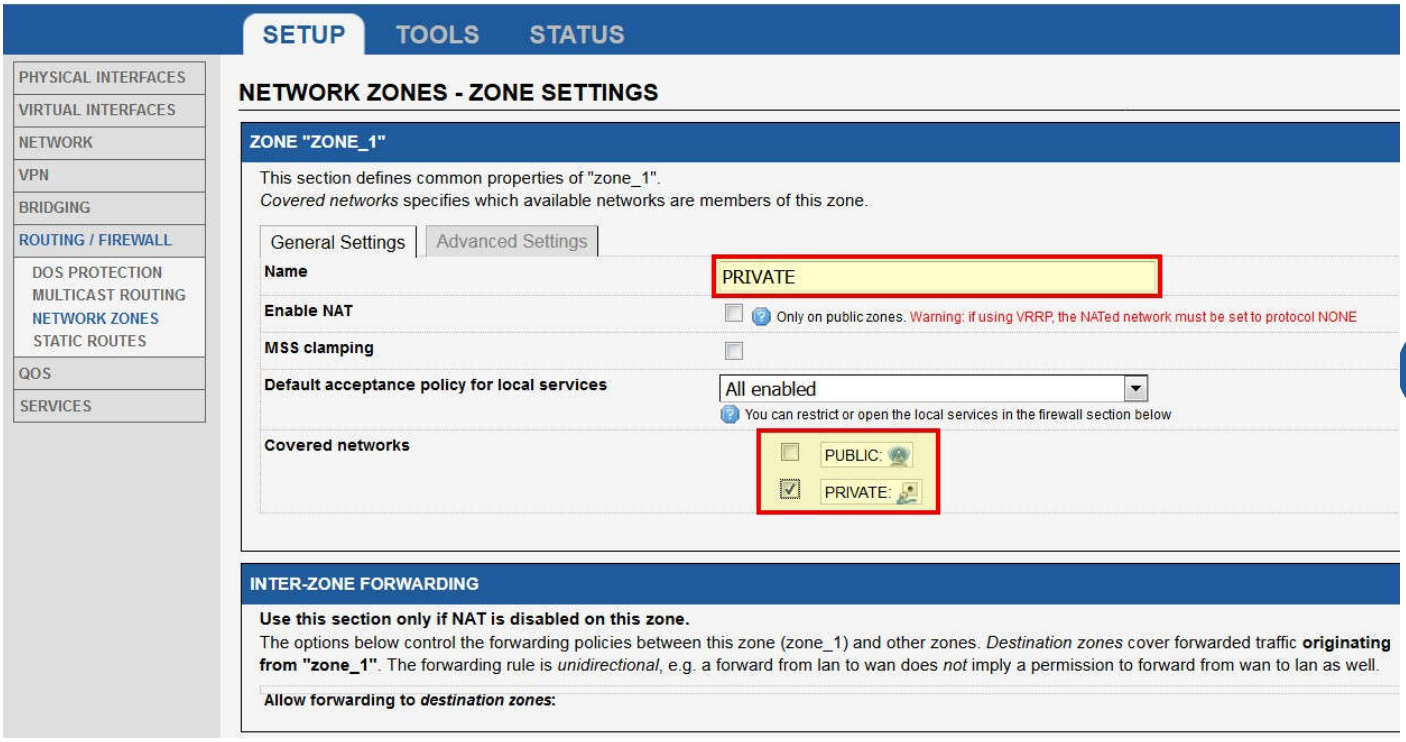
Click on **Routing/Firewall**



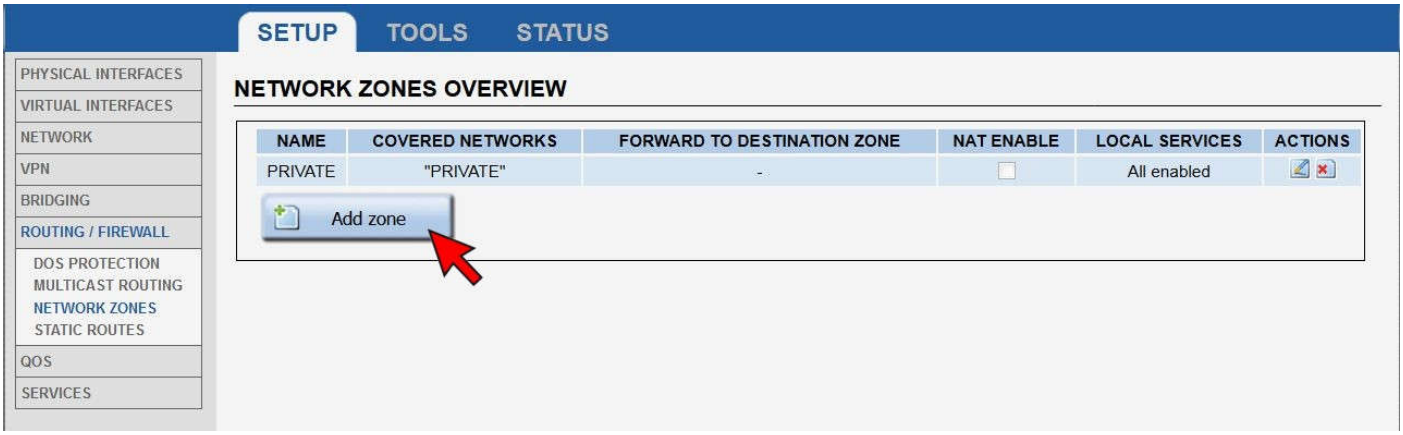
Click on **NETWORK ZONES** then **Add zone**



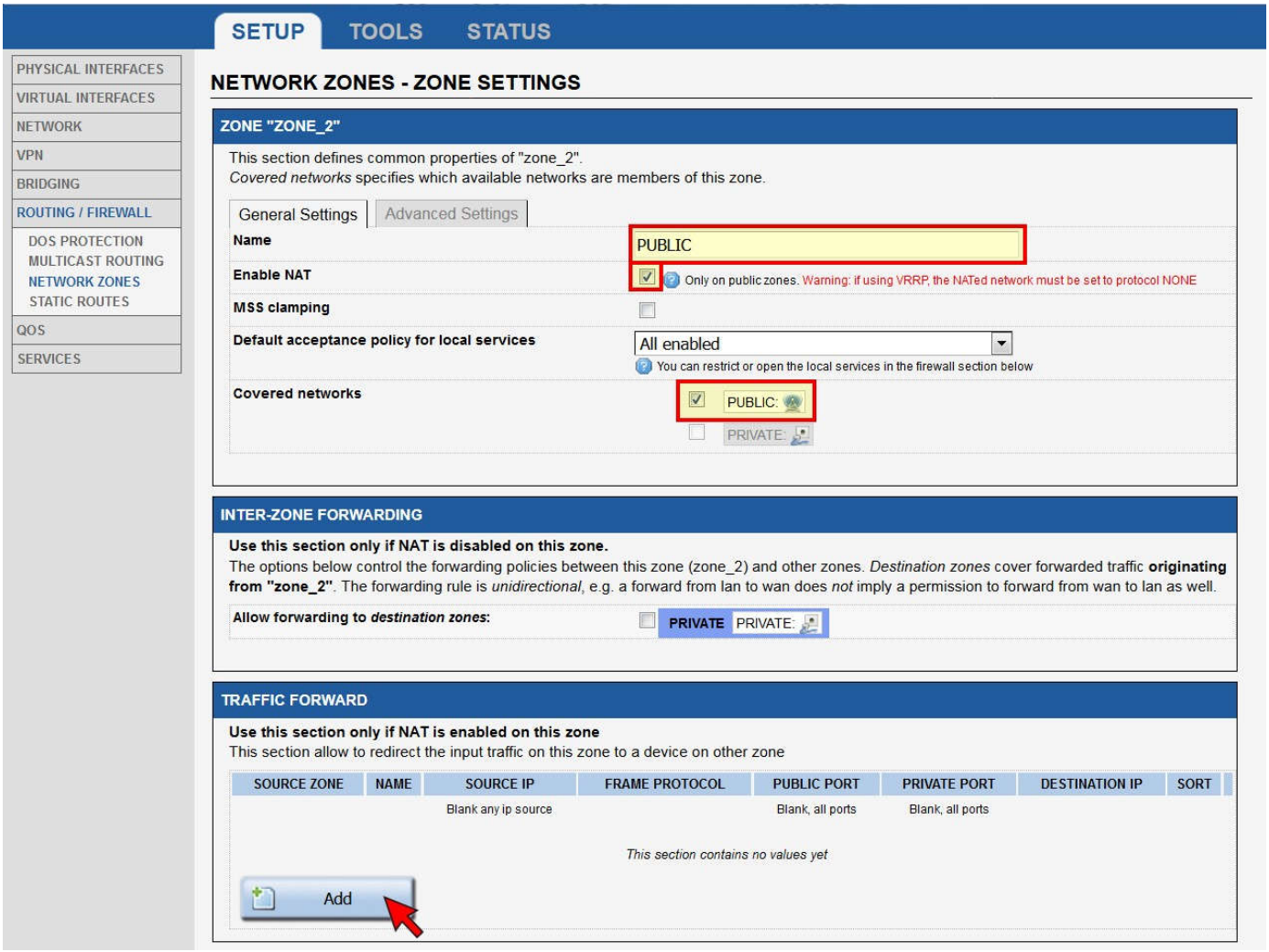
Name the zone **PRIVATE** then select **PRIVATE network**



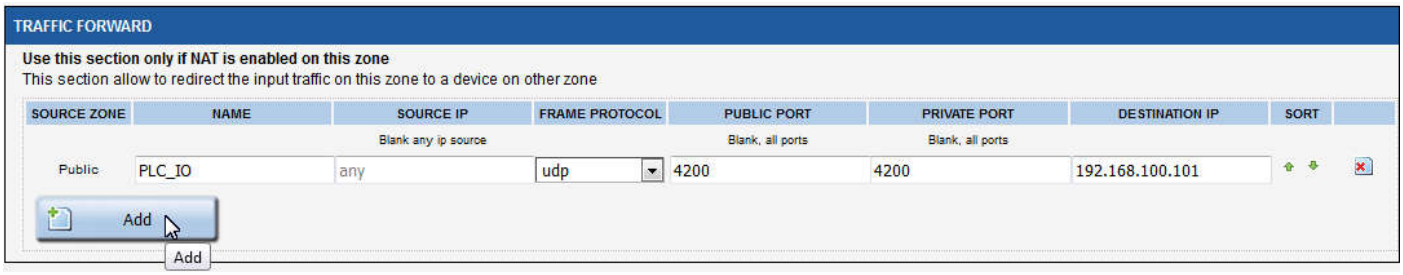
Save and add a new zone from **NETWORK ZONE**

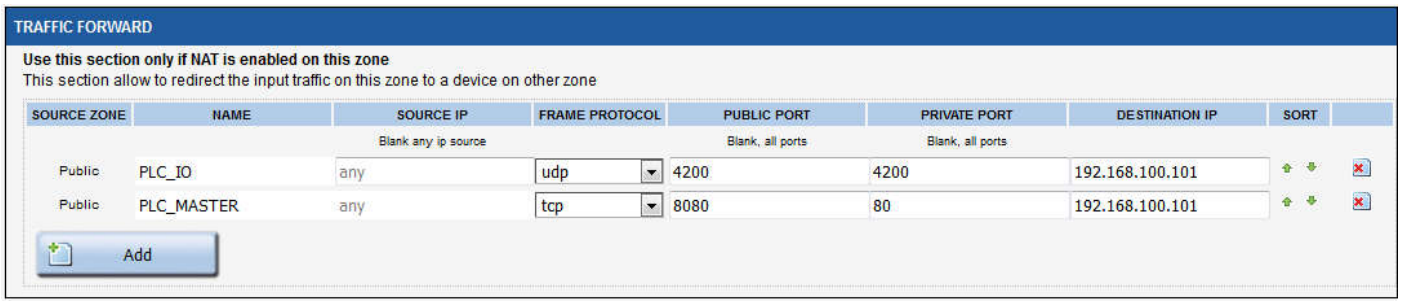


Name the new area **PUBLIC**, check **NAT** and select the **PUBLIC** network, then **Add** in **TRAFFIC FORWARD**.

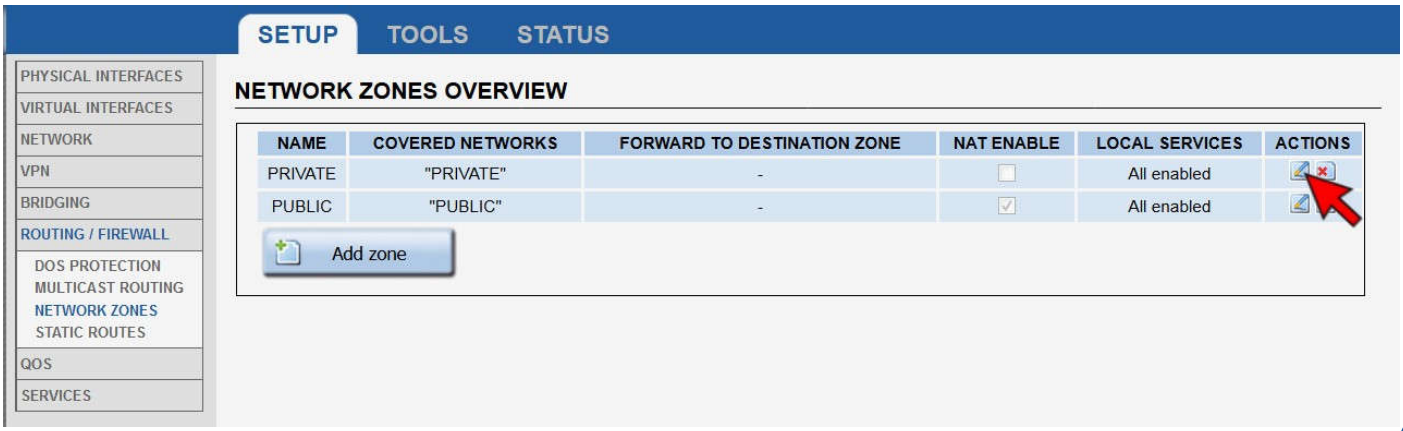


Fill in the required fields for the first translation rule, then add the second rule

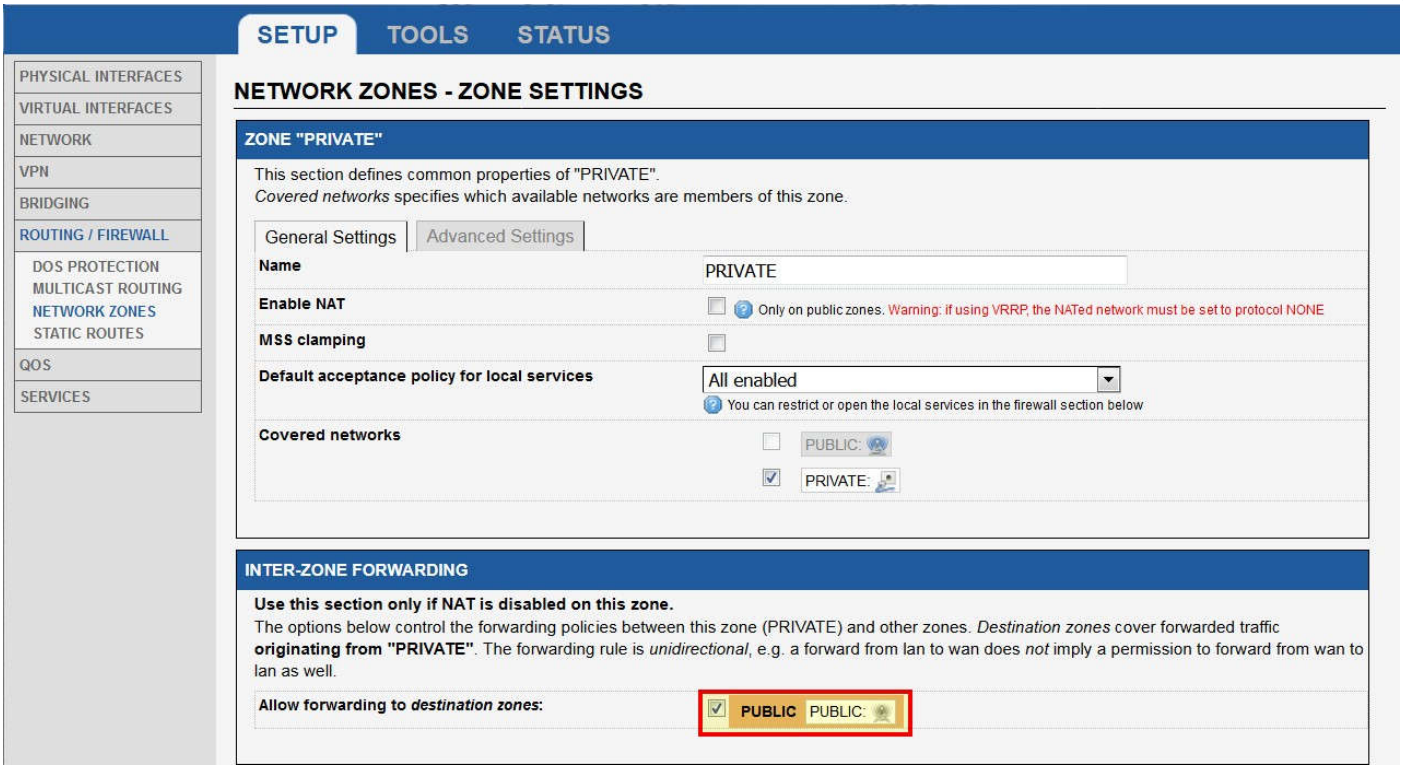




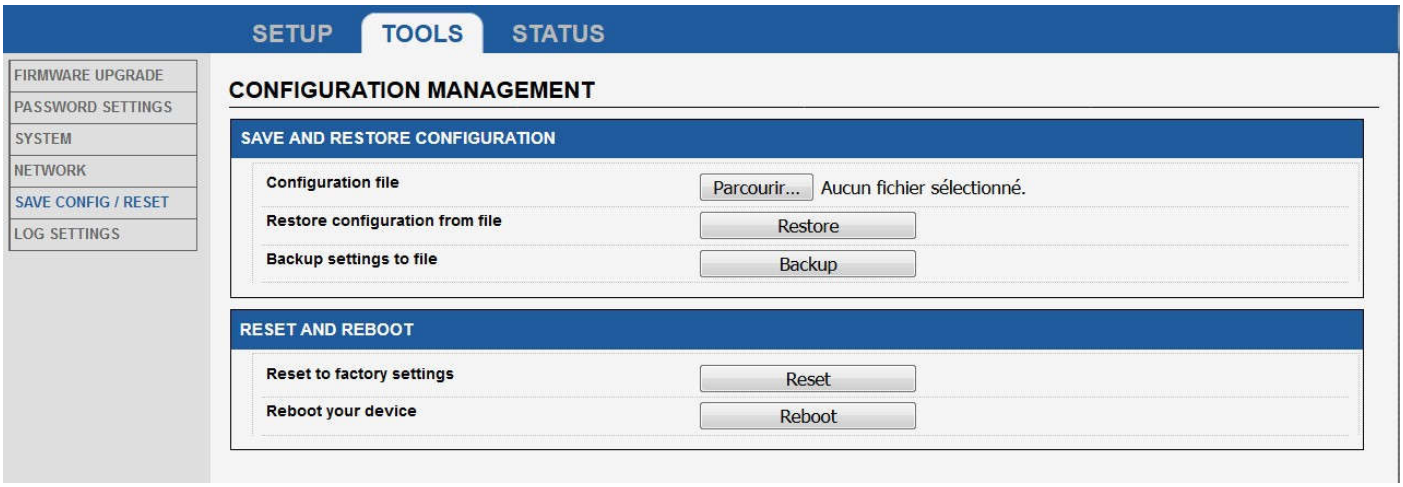
Save and return to **NETWORK ZONE** to edit the **PRIVATE** area



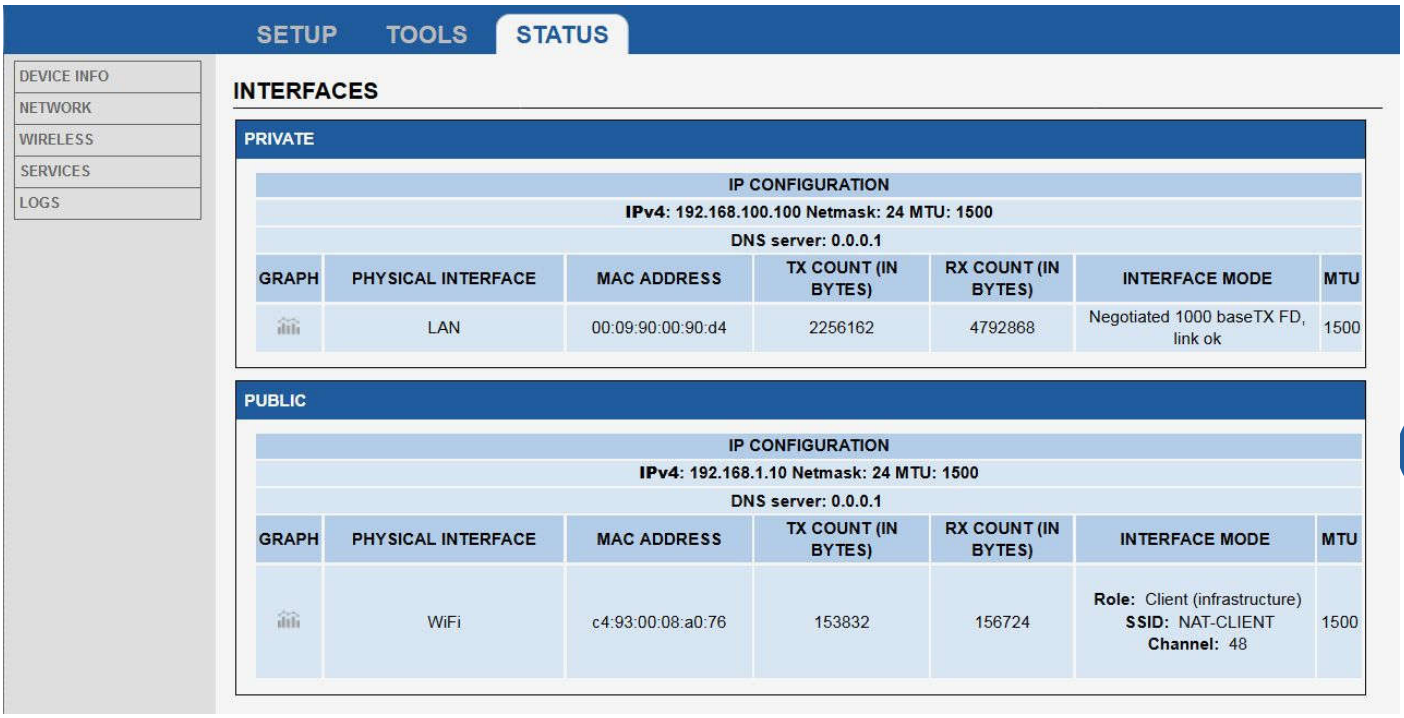
In **INTER-ZONE FORWARDING**, allow routing to the **PUBLIC** area, then **Save**



You will now be able to reboot to activate the new configuration. In **TOOLS/SAVE CONFIG**, click **REBOOT**. At this point, make sure your PC is configured on the **PRIVATE** network subnet of the product (192.168.100.0/24) to return to the administration.



After reboot, you can check that the physical interfaces are functional in the **STATUS/NETWORK** page



If the access point is within range, you can check in **STATUS/WIRELESS/ASSOC STATIONS** that the product is correctly associated