

Troubleshooting the USB WiFi Router on FON Networks

Quite often we find our customers are using this device (WL-USBWIFIRPT-3000) in conjunction with a USB antenna such as the Rocket (NET-WL-ROCKET_BGN) to try and connect to a FON WiFi network.

The usual symptom we hear is that all seems well and good when the connection is made, however the user cannot get access to the FON log on page as much as they try.

The reason for this is because the default gateway (the router that the FON service is using) has the same LAN IP address as the USB WiFi Router – this means that there is a clash of IP addresses...

Two devices on the same network must never be assigned the same address, routers especially.

So the solution to the problem is to give the USB WiFi Router a different LAN IP address which isn't in the same network range of the FON service (the network range is denoted by the *subnet* which is the third segment of an IP address **192.168.2.1**):

In order to do this you must click on the **Advanced** tab and choose **LAN**, this will take you to the page where you can change the LAN IP address under the heading **LAN Setup**.

Here we will change the LAN IP address from **192.168.2.1** to **192.168.50.1**, you will notice that the DHCP settings will automatically update as well. **Click Apply** to save the settings.

The screenshot displays the configuration interface for a 11n 3G USB Router. The 'Advanced' tab is selected, and the 'Local Area Network (LAN) Settings' section is active. The 'LAN Setup' section shows the IP Address field set to 192.168.50.1, which is circled in red. The Subnet Mask is 255.255.255.0. The 'DHCP Setup' section shows the DHCP Server set to 'Enable', the Start IP Address set to 192.168.50.100, and the End IP Address set to 192.168.50.199, both of which are circled in red. The 'Other Setup' section shows LLTD, IGMP Proxy, and PPPoE Relay all set to 'Disable', and UPNP set to 'Enable'. At the bottom, there are 'Apply' and 'Cancel' buttons. The footer contains the text 'Copyright © 2011 NETWORK Inc. All Rights Reserved'.

Section	Parameter	Value
LAN Setup	MAC Address	00:C0:CA:80:BE:D0
	IP Address	192.168.50.1
	Subnet Mask	255.255.255.0
DHCP Setup	DHCP Server	Enable
	Start IP Address	192.168.50.100
	End IP Address	192.168.50.199
	Lease Time	One day
Other Setup	LLTD	Disable
	IGMP Proxy	Disable
	UPNP	Enable
	PPPoE Relay	Disable

The USB WiFi Router will now be set to the new IP Address of **192.168.50.1**, so whenever we want to access it we must use this address in the web browser instead of the original **192.168.2.1**.

We'd recommend that after you change any settings on the router you should momentarily turn off the WiFi on the device you're using to connect to it and then turn it on again and reconnect.

The reason for doing this is so your tablet, laptop, etc... gets a fresh update on the information it has about the configuration.

Unfortunately some devices don't recognise these changes and cache the info about the settings, this can sometimes lead to you getting locked out when everything appears to be fine.

If you cannot re-connect you should forcibly forget/remove the router from your device's WiFi network list and then re-connect to the router when it appears again as an available WiFi network.

To observe the IP addresses click on the **Status** tab, here you'll see the **Default Gateway** (FON network in this context) that you are connected to and also the address the FON network has assigned to the USB WiFi Router (**WAN IP Address**).

You will also notice the **LAN IP Address** here as well, and if there is an IP address clash between the USB WiFi Router and the FON network then you will notice that the **LAN IP Address** and **WAN IP Address** will be the same.

The screenshot displays the web interface for a 11n 3G USB Router. The 'Status' tab is selected, showing the following configuration details:

11n 3G USB Router			
Status	Easy Setup	Advanced	Language English
Internet Configuration			
Connected Type	DHCP	Connected Status	Connected
WAN IP Address	192.168.27.135	Subnet Mask	255.255.255.0
Default Gateway	192.168.27.1	Primary Domain Name Server	8.8.8.8
Secondary Domain Name Server		MAC Address	00:C0:CA:80:BE:D1
LAN Configuration			
LAN IP Address	192.168.50.1	LAN Netmask	255.255.255.0
MAC Address	00:C0:CA:80:BE:D0		
System Info			
Firmware Version	V1.2.1.2N(Sep 10 2013)	System Time	Sat, 01 Jan 2011 00:12:49
Operation Mode	Router Mode		