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Configuring WDS Wireless Distribution System with Billion 7404VGP and TP-Link WR340G

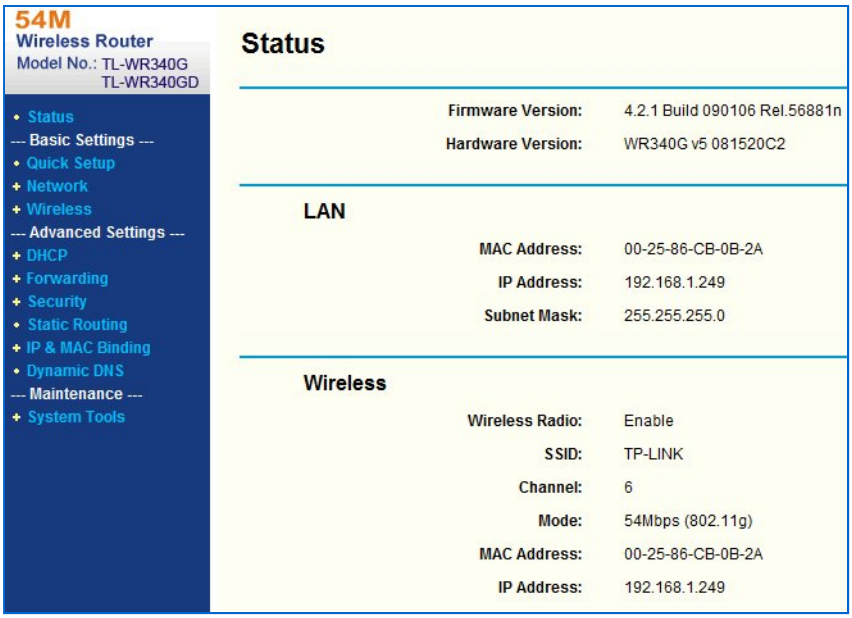
If you need to extend the coverage of your wireless network without cabling between access points you can implement a Wireless Distribution Systems (WDS)

They can be tricky to get working without knowing some specific information. This information is not absolute for every kind of router configuration but it works:

- Both Routers must support WDS. Check before you buy them.
- WDS will only work using WEP wireless security (not WPA-PSK)
- The wireless channel on both routers should be set to 6
- You require the wireless interface MAC address of both Routers
- Enable DHCP on the remote router and set the default Gateway and DNS server to the LAN address of the primary router connected to the Internet

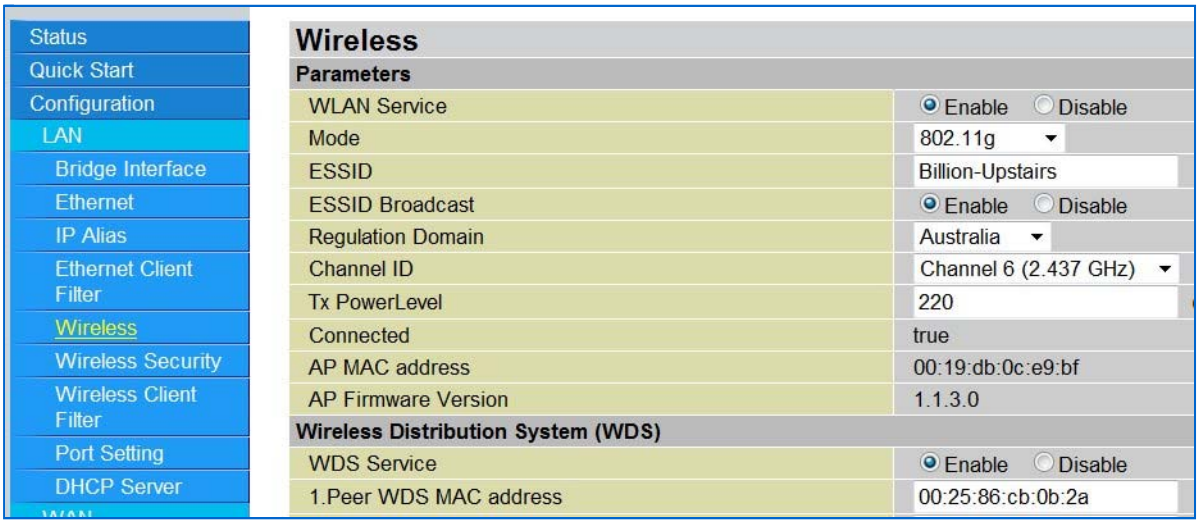
In this example the main Billion 7404VGP is connected to the internet and has a LAN IP address of 192.168.1.254. I've connected a notebooks to the remote TP -LINK and set the LAN address to 192.168.1.249 i.e in the same subnet as the billion.

From the TP link look up the MAC address of the wireless adapter and note it for insertion in the Billion. From the status page the wireless MAC address in this case is 00 25 86 CB 0B 2A



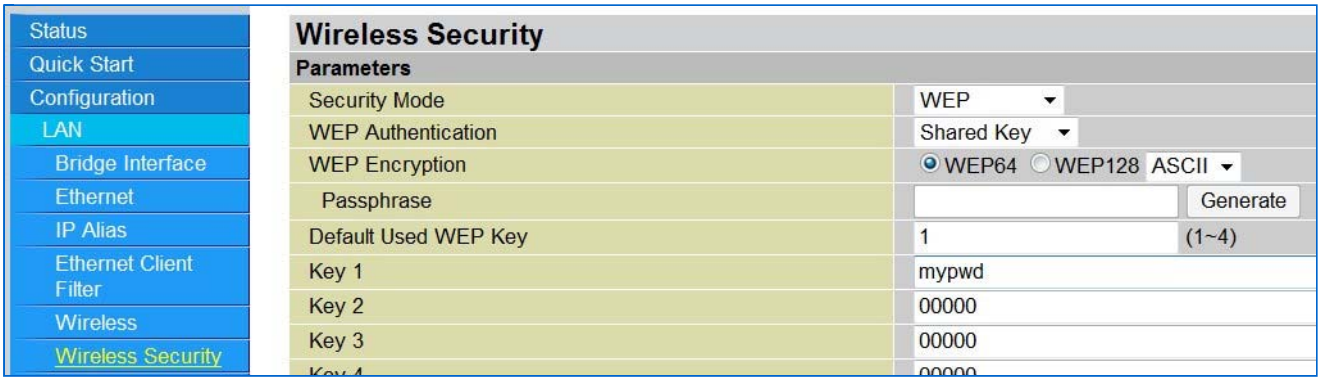
Connect to the Billion. Set the Channel to 6 and note the AP MAC address of the billion which in this case is 00:19:db:0c:e9:bf

Under the Wireless Distribution System settings enter the MAC address of the remote TP link in the Peer WDS MAC address field

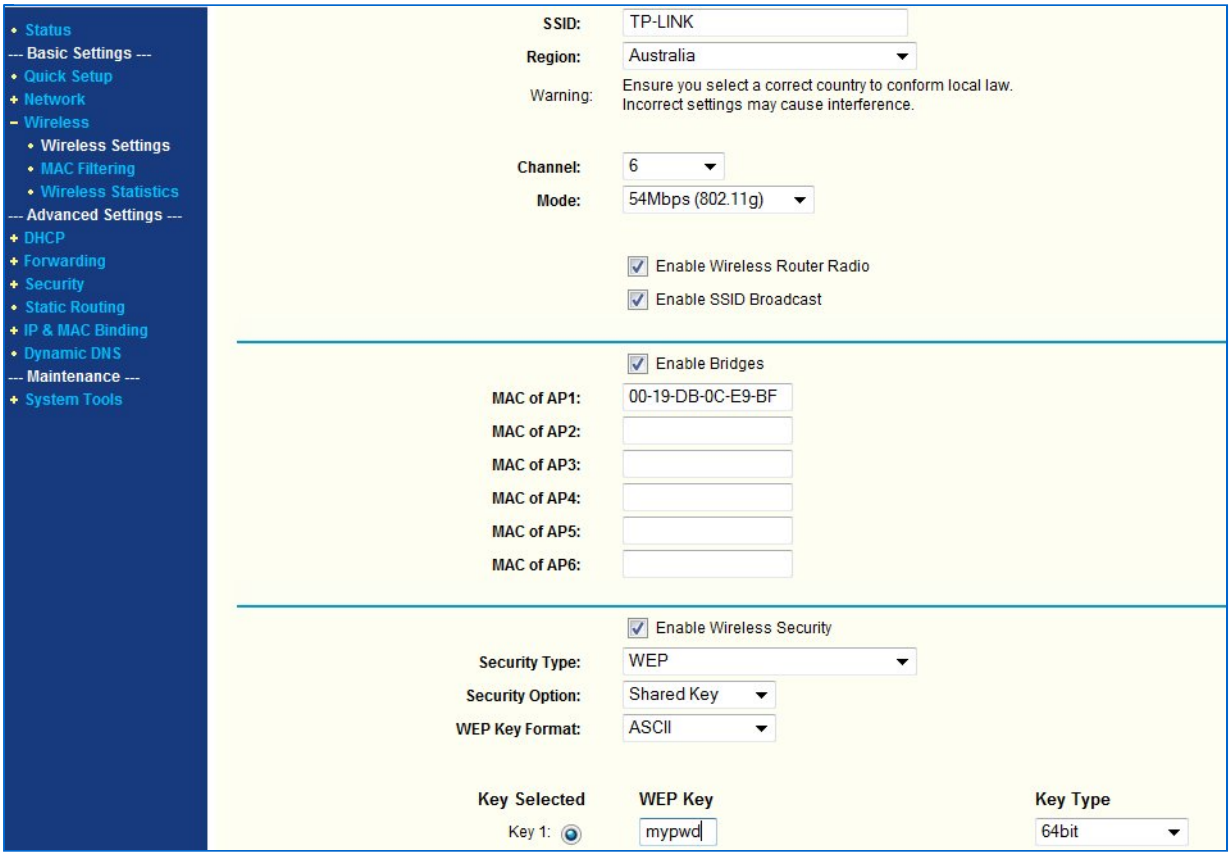


In the wireless security menu set the security mode to WEP, WEP authentication to shared key, WEP encryption you can choose 64 bit or 128bit – I use 64 bit for brevity. Enter a 5 character Key.

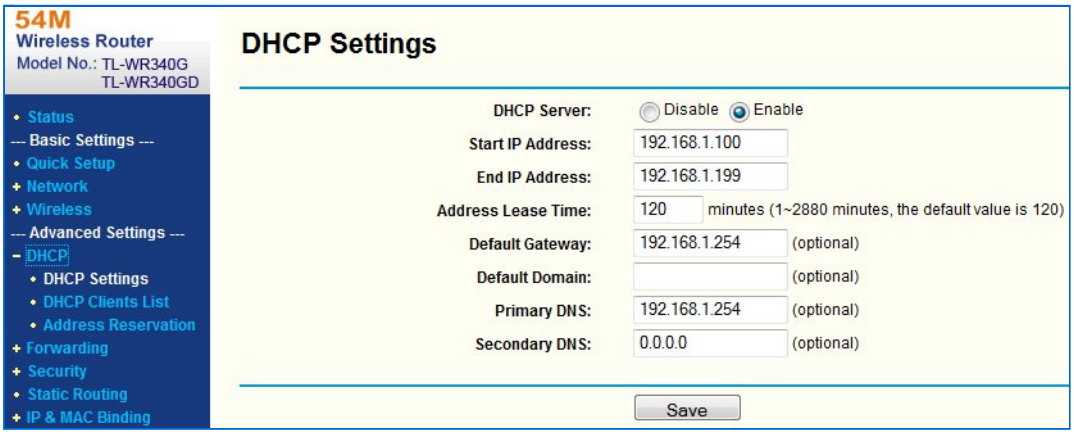
Note that the remote router does not use this security information for connecting – it is authenticated by the MAC address entered in the Peer table.



Back on the TP link go to the wireless settings menu. Set the channel to 6, enable bridges and enter the MAC address of the billion noted above. Enable wireless security to WEP, Shared Key and enter a WEP Key.



Configure the DHCP server on the remote TP link with an IP address range which does not clash with the DHCP on the primary billion router. Configure the default Gateway and primary DNS to the IP address of the billion.



From your wireless client connect to TP-LINK

You should be allocated an IP address from the TP link range e.g. 192.168.1.100 with a default Gateway and DNS of 192.168.1.254

Test the connection through to the billion router by pinging 192.168.1.254. This will ping the billion across the wireless bridge and you should get 4 replies.

Then test pinging an Internet address you know will respond to confirm that you can get all the way out to the Internet and that DNS is resolving.

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Pallab Mahmud.

thanks a ton :D
i spent the whole day in google for this. your instructions really helped me a lot. i configured my tplink adsl router [TD-W8950ND] with tplink wireless router [WR340GD].
really appreciate your post :)

4 months ago Like Reply

BrendanKing.

I'm glad it was able to help you.

Brendan

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