

## TP-Link DECO M5 Whole Home Mesh WiFi

We get asked more questions about WiFi coverage and performance than anything else – the F4RN network is extremely reliable and delivers very high speeds (download and upload) to the router and to anything plugged directly into it.

WiFi is incredibly convenient but it introduces all sorts of issues that impact on the speeds you get on your computer, phone or laptop. The signal drops off rapidly with distance from the router, it gets blocked by walls and metal objects, there's interference from other devices, the microwave or the neighbour's router and to make things even more complicated there are different WiFi standards which can confuse the device you are using (as well as confusing us at times!).

Why do some smart TV's work fine and other's not? Why do LG TV's seem particularly troublesome but streaming TV devices from Roku, Amazon and Google appear to work fine? All these factors are beyond our control and poor WiFi performance can be extremely frustrating.

So what's the answer? (see the F4RN FAQ<sup>1</sup> for more information)

- Until recently we've been restricted to plug in range extenders (work brilliantly for some, but others report that they are temperamental, can be slow and don't always work for streaming TV's etc)
- F4RN can supply high performance access points (the sort of device you would find in a hotel or conference centre). These have a much stronger WiFi signal so can get over some of the problems of range, but are still defeated by larger properties where you might need to install two or more access points – each with an Ethernet cable back to the F4RN router
- Recently a number of mesh WiFi systems have appeared on the market. These include systems from BT, TP-Link, Netgear and Google. They're not cheap (~£200) but might be the answer for anyone wanting to get good WiFi coverage throughout their property.

We've only tested the TP-Link DECO M5 Mesh WiFi system (following a glowing report from a F4RN customer) but the results were pretty good.

### What is a "Mesh WiFi system"

Most routers provide a WiFi signal but you need to be close to the router to get the full performance. With a mesh system, three or more WiFi access points are located around the house. One of these needs to be plugged into the router but the rest only need a power supply. The access points then establish a wireless link between themselves and optimise this so that each provides the best WiFi coverage and speed that it can.



So if the main router is in one corner of the house, full WiFi coverage can be obtained by putting the other dishes around the house – perhaps one on the landing and a third in the opposite corner of the house downstairs. Choosing the best location might take a bit of trial and error (sometimes with some support from the setup programme)

That's it – plug in the access points, connect one to the router, run the setup programme (usually a mobile phone app) and you are on line.

<sup>1</sup> <http://f4rn.org.uk/faqs/faq-wifi/>

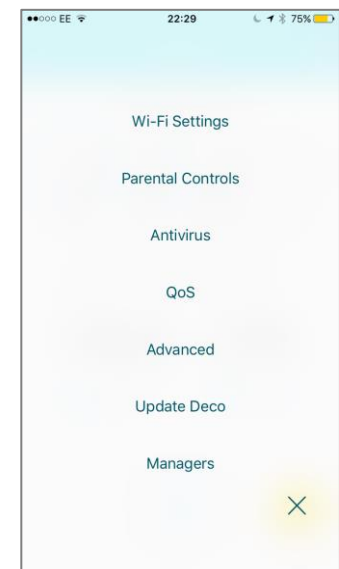
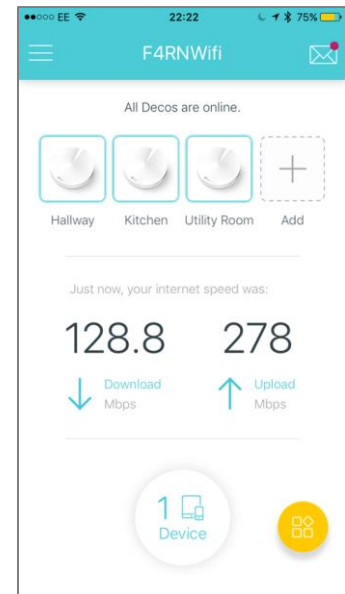
## What about the WiFi network name (or SSID?)

All the access points in the mesh network use the same SSID – so you only need to connect your computer to the new WiFi network once. It's a good idea to choose a completely new SSID when you set up the new mesh network so there's no confusion with any existing WiFi set up.

Now for the really clever bit – the access points communicate with each other and then gently encourage your computer, phone etc to connect to the one that gives the best WiFi performance.

## What do we like about the TP-Link system?

- It was very easy to set up – less than 15 minutes in total to download the app, setup all the access points and configure the network
- It's easy to tell if there is a problem - The access points have a small status light which changes colour if they lose connection or the internet goes down. The app also provides status updates
- There are some very powerful features including
  - Built in virus protection
  - Parental controls
- The system periodically tests the speed of your ethernet connection – We don't encourage speed tests, but if the app says your ethernet speed is great but your computer is running slow it points to an internal problem and not the F4RN network!
- The access points come with two ethernet ports – so you can plug straight into them (Smart TV, Sky Box, computer, Xbox etc)
- The ethernet ports can also be used to wire the access points together – the mesh WiFi is good but apparently they work even better when connected with an ethernet cable. (However check the TP-Link FAQ's<sup>2</sup> if you plan to do this as the way the access points are connected is very important).
- Additional access points can be added to further improve coverage



## What don't we like?

- The app did not give any help in positioning the access points – apparently the BT app gives more help
- The price – It all adds up, so another £200+ to get great WiFi coverage may be too much for some
- The speeds still appeared to vary with our location, the number of people using the WiFi and outside interference. The system was good but WiFi still remains a black art!

<sup>2</sup> <http://www.tp-link.com/us/faq-1794.html>

## Where can I find out more?

Here are a selection of independent reviews of the different Mesh WiFi systems

System	Reviewer	URL
TP-Link DECO M5	Expert Reviews	<a href="http://www.expertreviews.co.uk/tp-link/1406022/tp-link-deco-m5-review-a-challenger-for-google-wifis-crown">http://www.expertreviews.co.uk/tp-link/1406022/tp-link-deco-m5-review-a-challenger-for-google-wifis-crown</a>
	Tech Advisor	<a href="http://www.techadvisor.co.uk/review/wifi-routers/tp-link-deco-m5-review-3659363/">http://www.techadvisor.co.uk/review/wifi-routers/tp-link-deco-m5-review-3659363/</a>
BT	Expert Reviews	<a href="http://www.expertreviews.co.uk/bt/1405560/bt-whole-home-wi-fi-review-dead-spots-begone">http://www.expertreviews.co.uk/bt/1405560/bt-whole-home-wi-fi-review-dead-spots-begone</a>
	Tech Advisor	<a href="http://www.techadvisor.co.uk/review/wifi-networking/bt-whole-home-wi-fi-review-3654744/">http://www.techadvisor.co.uk/review/wifi-networking/bt-whole-home-wi-fi-review-3654744/</a>
Google	Expert Reviews	<a href="http://www.expertreviews.co.uk/google/1405770/google-wifi-review-mesh-wi-fi-system-hits-uk-and-its-great">http://www.expertreviews.co.uk/google/1405770/google-wifi-review-mesh-wi-fi-system-hits-uk-and-its-great</a>
	Tech Radar	<a href="http://www.techradar.com/reviews/google-wifi">http://www.techradar.com/reviews/google-wifi</a>
Ubiquiti	TweakTown	<a href="https://www.tweaktown.com/reviews/7858/ubiquiti-amplifi-hd-802-11ac-mesh-wi-fi-review/index.html">https://www.tweaktown.com/reviews/7858/ubiquiti-amplifi-hd-802-11ac-mesh-wi-fi-review/index.html</a>