

Introduction to WiFi & The Velop Mesh Solution

What is WiFi?

Put simply, WiFi is a data transfer sent through the air using a radio frequency. This results in a network of devices communicating together through wireless communication.

WiFi is transmitted from a wireless router (which broadcasts the signal) to wireless clients (devices such as computers, mobile phones and gaming consoles, etc). This frequency is broadcasted on two different frequency bands: 2.4 GHz and 5 GHz.

What Do The Frequencies Mean?

There are two different WiFi bands – 2.4Ghz and 5Ghz.

5Ghz uses a much denser wavelength. This means it has a higher bandwidth (e.g. speed, reaching 400-600mbps) but it is limited by a shorter distance and struggles to get through walls/obstructions, so its range is much shorter

2.4Ghz goes much further around the house as it can go through walls and other objects more effectively, but is slower and prone to interference issues. You'd struggle to get above 100Mbps on 2.4Ghz so it would not be ideal for gaming, for instance, but would be more reliable for devices such as Smart TVs.

We can see a comparison between the two frequencies on the next page:

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Your router will automatically find the strongest signal for your WiFi and will continuously check if it's as strong as possible.

How Can I Improve My WiFi Signal?

As mentioned above, the WiFi signal (no matter which frequency is broadcasted) can be limited by physical obstacles and other environmental factors, such as: microwaves, bluetooth devices, baby monitors, cordless phones, security systems and other wireless devices in the same vicinity/close proximity to the router. Materials such as wood, water, bricks, marble, plaster, concrete and metal also limit WiFi's effectiveness.

Our specialist installers will place our equipment in the most suitable location for the WiFi to be transmitted most efficiently inside your property. This would typically be in a central location and ideally on a wall mount or high shelf away from other appliances.

What is a WiFi Mesh Solution?

A WiFi mesh network is composed of the main WiFi router (a parent router) working with additional child/satellite router(s) which are located around your property, providing full WiFi coverage. Both the main router and child/satellite routers are the same device and model and share the same network name/credentials. The more routers that are installed and incorporated into the network, the stronger and faster the connection will be - allowing the users to maximise the maximum potential of the network.

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The child routers will connect to either the main router or another child/satellite router (providing it is closer). Your devices will connect to the closest router automatically, therefore optimising efficiency. As you walk around the property, your device will connect to different routers seamlessly as they move around. This allows the local mesh network to operate at maximum efficiency, and faster, as packets of data are not required to be sent to a central server. This is different from installing an extender/booster where the user would typically need to switch between each broadcasting device when moving around the property.



Another advantage of a mesh system would be that less Ethernet wires are required for each router, allowing the network to be truly “wireless”. Furthermore, the additional child routers will be automatically configured once linked to the main node and will allow the user adaptability as more or less coverage is required in the property.

What’s more, your router will update itself automatically with the latest firmware to keep you safe and secure. It intelligently monitors WiFi coverage, self-healing technical issues as they occur so that you get seamless, uninterrupted WiFi.

One Velop is as effective as a competitor’s equipment - but with child routers (i.e. a Mesh setup) you’ll certainly notice the advantages! These are always available to be added on to whichever package is chosen at a price of £3/month per router.

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