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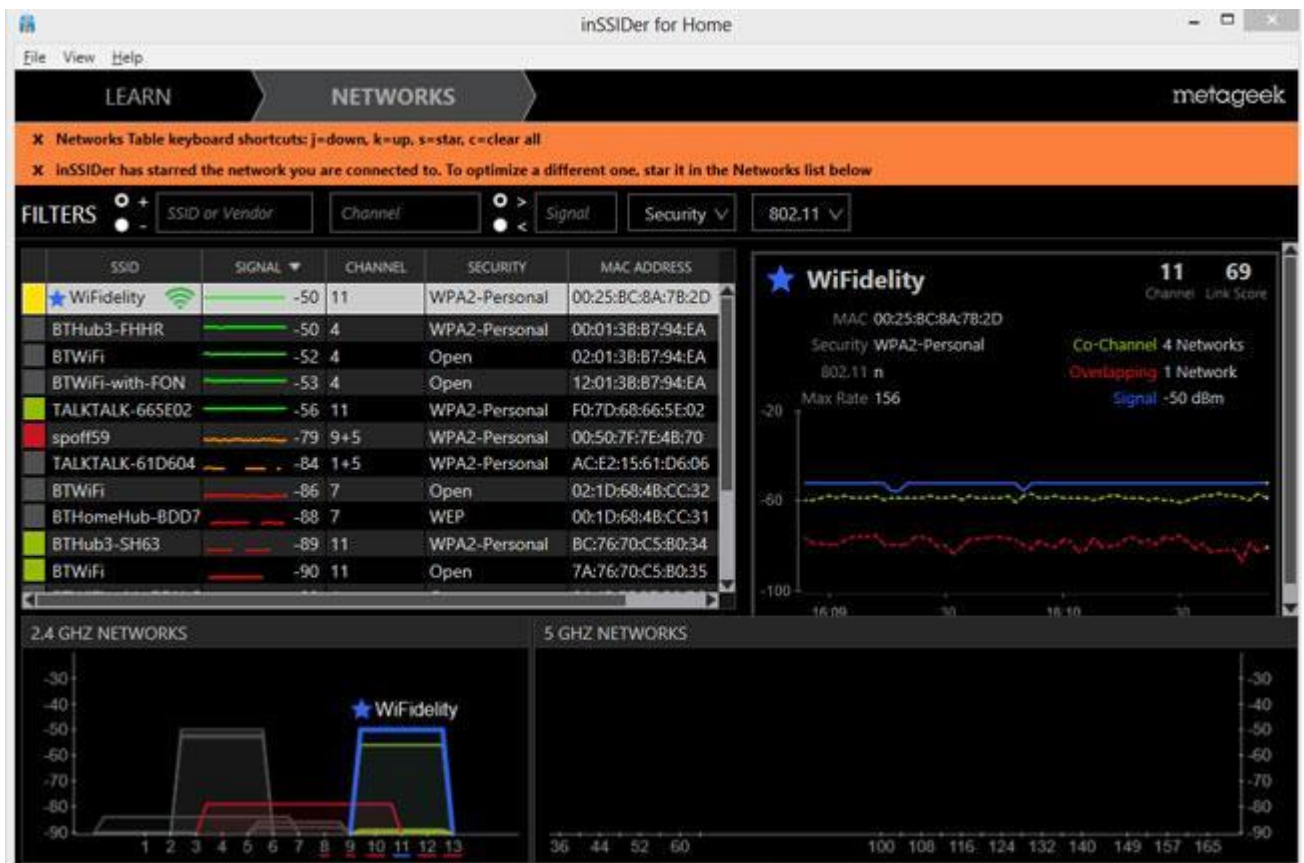
How to boost your home Wi-Fiⁱ

Here are some tips and tricks to improve the range and performance of your home Wi-Fi network, laptop, tablet or smartphone anywhere within your home, without connecting to a mass of cables. You can use Wi-Fi to send photos from computer to computer, to send documents to a printer wirelessly, or to play games online on a smartphone. But, on occasion, your home Wi-Fi signal may seem weak or you may struggle to pick it up certain rooms. Here are some tips for boosting your home Wi-Fi.

Step 1: The right location

Thick walls are the enemy of Wi-Fi. They simply block the signal. Position your Wi-Fi router so its signal has as few obstructions as possible. Ideally, it needs to have plenty of clear space around it. Try putting it on a shelf at around waist height or on a desk. It's important that it's situated away from electrical interference from other wireless devices.

2: Change channel





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As increasing numbers of people use Wi-Fi, the airwaves are becoming more congested, particularly in urban areas. This can lead to interference. Changing the Wi-Fi channel of your router can help. The BTⁱⁱ Home Hub 3, Home Hub 4 and Home Hub 5 include Smart Wireless technology which automatically scans the channels, selecting the one with least interference.

Alternatively swap channels manually via the Hub Manager. Go to Settings > Wireless > Channel Selection and choose a new channel. BT has some useful advice on their customer help website If Unsure which channel to choose check out the inSSIDer for home website, a useful piece of software which lets you view how many Wi-Fi networks are on each channel in your immediate area.

Step 3: Update your software

The screenshot shows the 'Modem-Router Setup' interface for a Belkin router. The page is titled 'Status' and includes a message: 'You will need to log in before you can change any settings'. There are 'Connect' and 'Disconnect' buttons. The settings are organized into several sections:

- Language:**
 - Current Language: English
 - Available Languages: English, Spanish, French, Deutsch, Nederlands, Italiano
 - Time: Saturday January 1, 2000, 0:02:03
- Version Info:**
 - Hardware: FSD8635-4v1
 - Firmware Version: 1.00.23
 - Boot Code Version: 1.1.5
 - Wireless driver: 1.8.1.0
- Internet Settings:**
 - WAN MAC Address: 00:15:F2:F4:3A:D0
 - Connection Type: Static IP
 - Subnet Mask: 255.255.248.0
 - WAN IP: 93.97.189.51
 - Default Gateway: 93.97.184.1
 - Primary DNS Server: 87.194.248.51
 - Secondary DNS Server: 87.194.0.52
 - Condition: Not Connected
- ADSL:**
 - Type: Unknown Mode
 - Modem Status: Ready
 - Data Rate(kbps): 0
- LAN Settings:**
 - LAN MAC Address: 00:1C:DF:D4:68:B9
 - IP Address: 192.168.2.1
 - Subnet Mask: 255.255.255.0
 - DHCP Server: Enabled
- WLAN Settings:**
 - Wireless: On
 - SSID: Wifidelity N
 - Security Type: WPA-PSK(no server)
 - Encryption Type: TKIP+AES
 - WLAN MAC Address: 00:1C:DF:D4:68:B9
 - WPS: Enabled
 - Guest Access: Disabled
 - + SSID: Belkin_N+_GuestAccess
 - + Password/PSK: D468B9
- Router Status:**
 - Power: ECO
 - Firewall Settings: Off
 - Access Control: Off
 - DDNS: Off

The browser address bar at the bottom shows 'http://192.168.2.1/'.

Manufacturers often introduce software updates for devices - including routers - to improve security and stability.

BT Home Hub owners receive updates automatically overnight over their broadband line.



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If you are not a BT customer, find the router details on the unit or check the details of your broadband package if it came from your provider. The 'support' section of the manufacturer's website should include instructions. Upgrading manually can be quite technical, so may not be the right solution for everyone.

Step 4: Boost your Wi-Fi



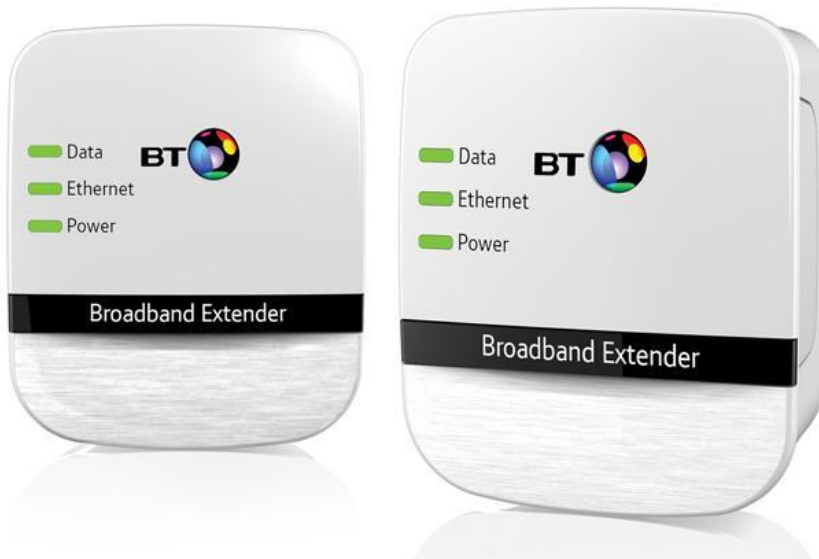
If you've tried the above and your wireless network still doesn't reach every room, consider a Wi-Fi range extender. The BT Dual-Band Wi-Fi Extender (£60) or Netgear WN300RP (£40) boost your Wi-Fi signal so it can be used in otherwise out-of-range places in your home. Depending on the device, you need a free ethernet socket on your main router or a spare mains plug. If investing in a repeater make sure it supports the same standard as your Wi-Fi, which is usually B, G or N. If you are looking for a more portable solution – such as for a laptop, opt for a Wi-Fi dongle. These plug into a USB port, adding Wi-Fi connectivity. Prices start from £25 at Connected Home website.



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Step 5: Expand your wired network



Similar to Wi-Fi range extenders, another way of extending your home internet connection is to use a Powerline adaptor. This utilises the electrical circuit that runs around your home to extend your

broadband network, bringing network access to any room with a plug. This is a particularly good way to connect your Smart TV to the net.

Kits typically consist of two adaptors, one which connects to your router and the other to any device via ethernet bringing a wired connection. There are numerous versions that support different speeds and single or multiple devices, and some even include Wi-Fi hotspots. Prices start from £35 for the Broadband Extender 200 Kit at Connected Home website.

6: Boost your antenna



Higher-gain antennas can boost Wi-Fi performance. Screwed in to replace your existing antenna, they work a bit like a stronger antenna for your TV. The D Link WLAN-Antenna D-



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Link Indoor 5dBi Omi-Directional antenna (£23) and TP Link 2.4GHz 8dbi Indoor Omno Directional Antenna (£5) is available from Amazon. Splay out the antennas to maximise their area of operation. They should point upwards and away from each other. Be aware that not every router supports antennas.

7: Router upgrade



A faster form of Wi-Fi can offer significant improvements, but older hardware such as venerable laptops and PCs will hold it back. So consider buying a new router. Swap your router for one that supports the newest form of Wi-Fi, 802.11n or wireless 'N'.

Wireless N routers offer up to 300Mbps connectivity – up to five times faster than older Wi-Fi versions. The BT Home Hub 2, Home Hub 3, Home Hub 4 and Home Hub 5 all support N technology. BT customers upgrading to BT Infinity can get the BT Home Hub 4, which supports N Wi-Fi, free.

ⁱ This document is for guidance only

ⁱⁱ Products from other telecoms providers will be available