

# How to map weak Wi-Fi coverage areas and fix them without buying a new router.

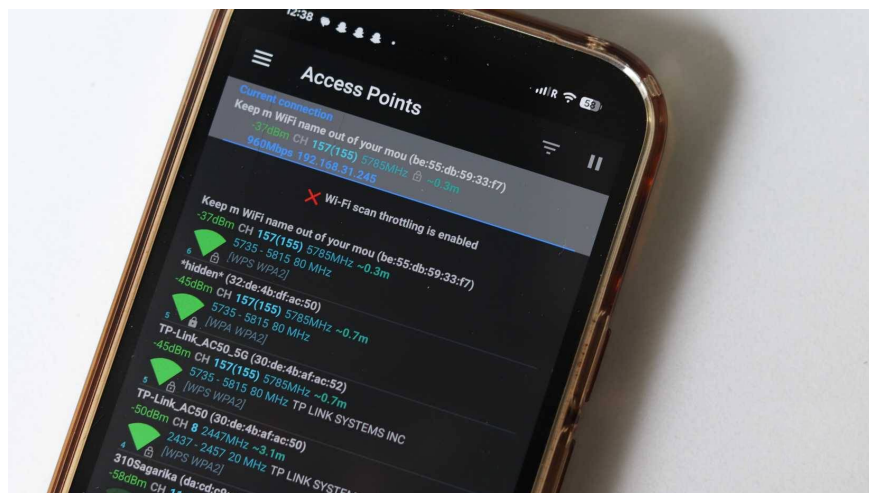
Many people have used Wi-Fi analysis apps to improve their connection, and fixing weak Wi-Fi simply involves mapping out Wi-Fi dead zones and addressing them accordingly.

Do you know that frustrating feeling of being on a video call from your bedroom and suddenly the image freezes, or when your smart home devices keep disconnecting? That's a Wi-Fi dead zone.

Fortunately, you don't need to set up a new router or repeater to fix them. Many people have used Wi-Fi analysis apps to boost their connection, and fixing weak Wi-Fi simply involves mapping out Wi-Fi dead zones and addressing them accordingly.

## Wi-Fi dead zones aren't random; they're predictable.

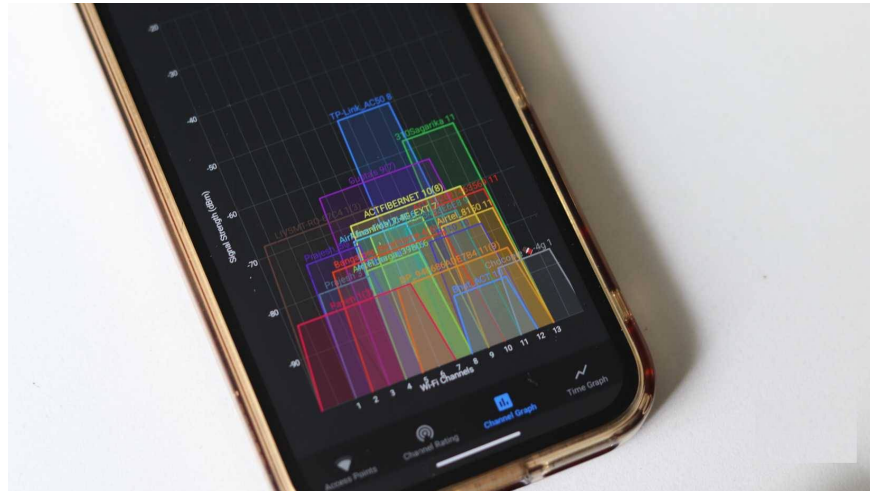
Walls, furniture, and the laws of physics are often the causes.



Wi-Fi dead zones aren't some mysterious curse; they're a matter of physics. Radio signals weaken as they travel, being absorbed by walls and furniture, bouncing off and interfering with other signals. The annoying thing is that you probably can't see anything happening.

Start by downloading a Wi-Fi analysis app on your phone. Many people use the Wi-Fi Analyzer app for Android, but any app that can display your Wi-Fi signal strength will do. These apps allow you to see the signal strength in real time as you move around, which is helpful for finding which areas in your home have the weakest signal.

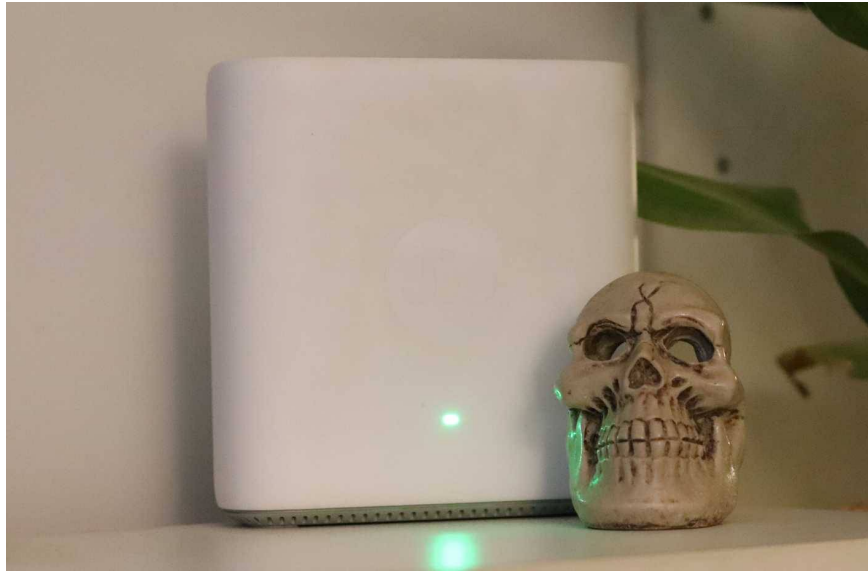
Finally, create a rough floor plan of your apartment, walk around systematically, and let the app graph the areas with strong and weak signals. This takes less than 15 minutes but gives you a pretty good understanding of the Wi-Fi signal around your home.



What this heat map reveals is fairly predictable but useful. If your router is near the front door, that means the more remote corners of the house have virtually no signal. The kitchen, with all its metal appliances and cabinets, is practically a signal "graveyard." These areas aren't necessarily inaccessible; they just aren't optimized.

**The placement of the device is more important than the router's specifications.**

**A blind spot can ruin your entire network.**



The simplest way to fix Wi-Fi dead zones in your home is to find the optimal location for your router. The best location for a Wi-Fi router is always in the center of the area you want to cover. Wi-Fi signals travel evenly in all directions from the router's antenna, meaning that placing the router in the middle of the house will give you the best coverage everywhere.

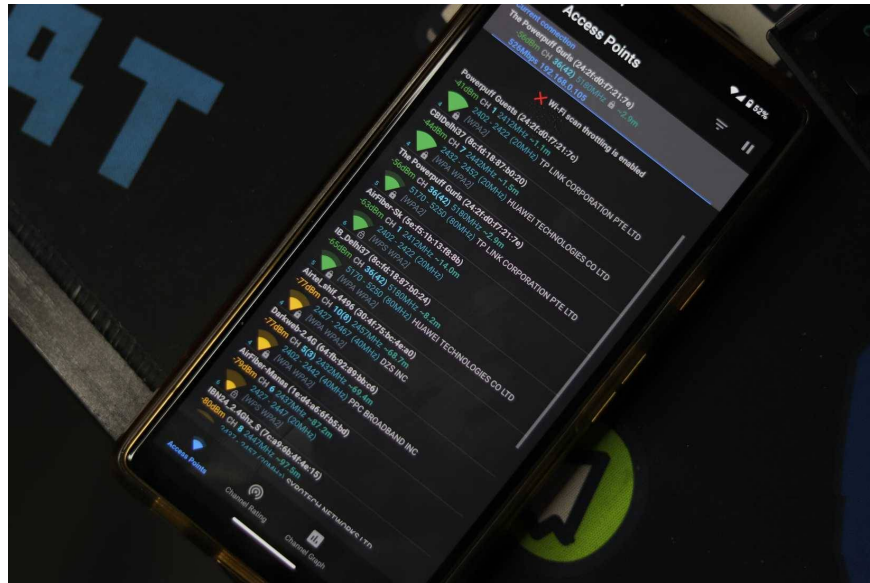
In reality, walls, electrical appliances, furniture, and other obstructions will prevent Wi-Fi signals from spreading evenly in all directions. However, starting from the center of the house allows you to position your router around the central area to ensure you place it in the least interfering location and have the best signal strength in all four corners of the house.

The placement of the router's antennas is also very important. If the router has two external antennas, the general advice is to place them perpendicular to each other – one vertical, one horizontal. This creates even coverage across an entire floor.

However, since you already have a heat map of Wi-Fi dead zones, experiment with router and antenna placement to find the optimal location for your apartment. Just make sure you avoid common misconceptions about router placement that do more harm than good.

**Your Wi-Fi channel might be interfering with your neighbor's.**

**Congestion is real, and the auto-selection mode is often inaccurate.**



This sounds technical, but it's actually quite simple: Wi-Fi channels. Think of channels like radio frequencies – if everyone in your apartment building is using the same channel, everyone's signal will be weaker. On the 2.4 GHz band, only 3 channels truly don't overlap: 1, 6, and 11. Most routers default to channel 6, which means interference in densely populated areas.

Use the same Wi-Fi analysis app to check which channel is least congested in your building. Depending on your situation, use the least congested channel for better speeds and a more stable signal. The specific settings you need to change will vary depending on the brand or model of your router, but a quick look at the user manual should answer all your questions.

If your router is 5GHz capable, and by 2026 it really should be, then you're already at a significant advantage. There are dozens of non-overlapping channels, so interference is less of a problem. However, 5GHz signals don't travel very far, so you'll have to be closer to the router.

Channel width also plays a role. Use a 20MHz band for 2.4GHz, as a narrower channel results in less interference, and 40MHz for 5GHz, as a wider channel allows for faster speeds if the network is not congested.

## **Sometimes you just need a little backup.**

**Extenders, mesh nodes, and older routers can fill those gaps.**



In case you didn't know, most routers have the ability to repeat signals to boost Wi-Fi network range. This means that in addition to receiving an internet connection via the WAN port from your Internet Service Provider (ISP) and transmitting it via Wi-Fi, they can also receive Wi-Fi signals from another router and "repeat" those signals, effectively boosting Wi-Fi range.

You can easily fix Wi-Fi dead zones with an older router, although some basic setup will be required. Keep in mind that, depending on the age of the router, it may not be the most secure networking device to use, but you can still use it on your home network. Either way, this is a cost-effective and efficient way to address Wi-Fi range issues in certain situations.

You could also consider using a Powerline adapter to establish a wired connection between your router and computer using your existing home wiring. This can be a great solution for slow internet speeds on smart TVs.

However, be aware of the misconceptions surrounding Powerline adapters. They may seem like a plug-and-play solution, but factors like home wiring and speed degradation can affect the actual speeds you get.

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