DIAGNOSE & FIX · YOUR HOME OR OFFICE

Fix Your Own Wi-Fi

A plain-English guide to diagnosing your home or office connection with the free **WLAN Pros Toolbox**

Your phone
where you sit

The box on the wall
where the two roads meet

The wider world
your provider, then everywhere

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wirelessLAN PROFESSIONALS

Fix Your Own Wi-Fi

Stop guessing. In one tap, know whether it’s your Wi-Fi, your internet, or just one bad app, and exactly what to do next.

Keith Parsons

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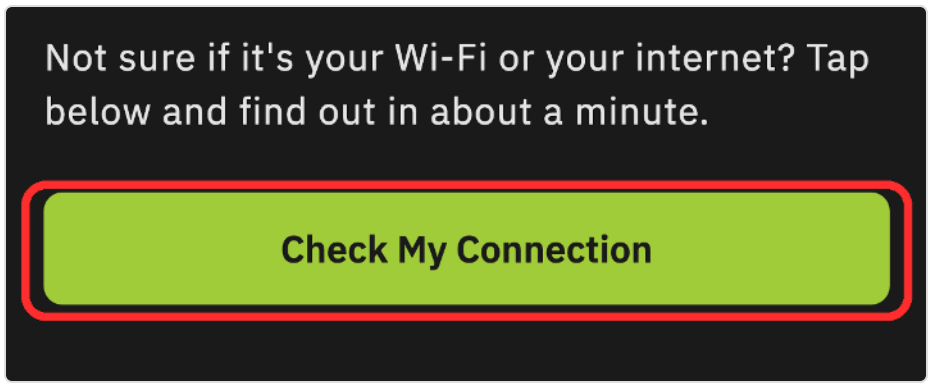
Chapter 1: “My Wi-Fi is broken” (and why it usually isn’t)

Most “my Wi-Fi is broken” problems aren’t Wi-Fi problems. That is the whole book in one sentence, and it is going to save you a lot of rebooting. The thing that froze your video call, stalled the kid’s game, or left a page spinning forever is real. It is just not always the part you think it is. By the end of this chapter you will tap one button on your device and know which part actually let you down. Then you will know what to do about it, or who to call.

I have been designing, installing and troubleshooting Wi-Fi for over 25 years, and every single problem I have ever been called to fix started with the same four words. “My Wi-Fi is broken.” I have heard it from a CEO whose video call kept freezing. I have heard it from a hotel guest who could not pull up a boarding pass. I have heard it from my own grandkids when a game stalled on the far side of the house. Four words, said with total confidence, and wrong most of the time.

Here is what almost nobody stops to explain. Your Wi-Fi and your internet are two different things. They just happen to meet at one box on your wall, so they get blamed as one thing. The most common Wi-Fi complaint in the world is actually an internet complaint wearing a Wi-Fi costume. Once you can tell the two apart, you stop guessing. So let's go look at the one screen that tells them apart for you.

Open the WLAN Pros Toolbox on your device. Tap **Test My Connection**. Don't run anything yet. Just read the one line on the screen.



> The Test My Connection screen, sitting quietly before you run it. One button, one plain question. That question is the whole point of this chapter.

Two roads, one box

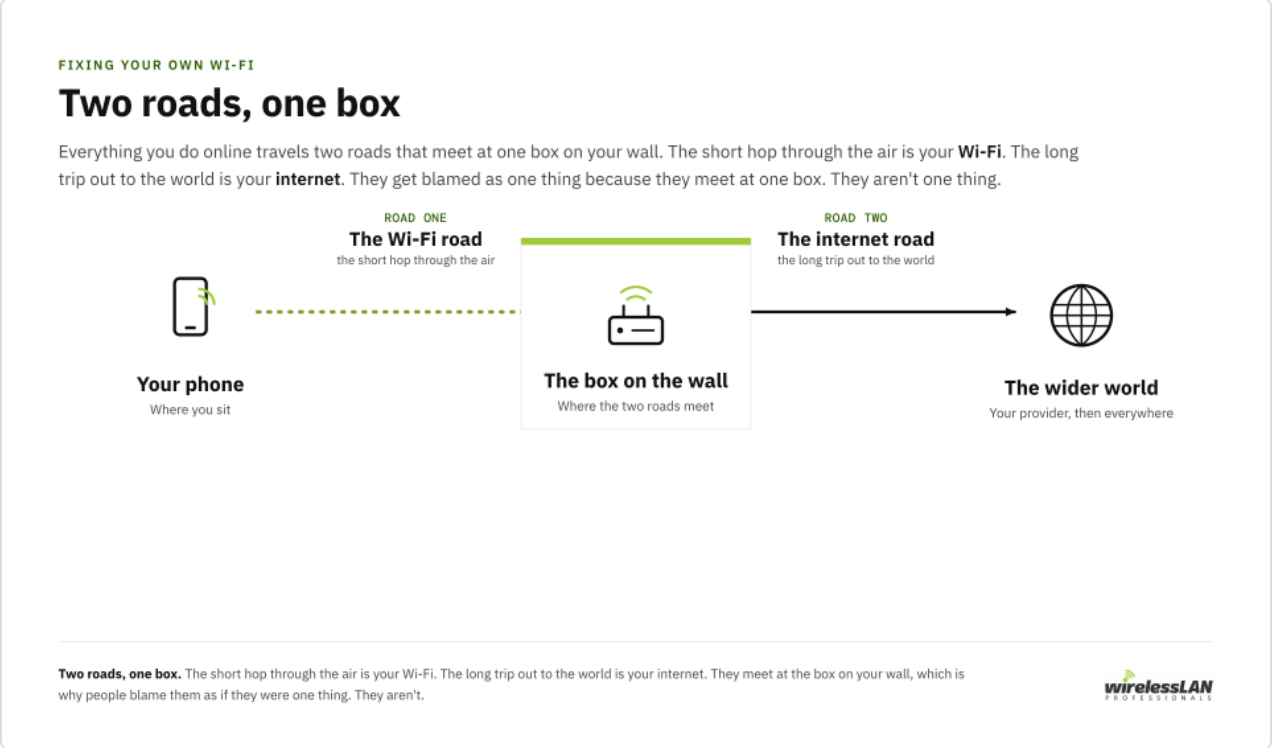
The screen is nearly empty, and that is on purpose. One button, **Check My Connection**, under one plain line:

> *Not sure if it's your Wi-Fi or your internet? Tap below and find out in about a minute.*

That sentence is the idea most people never learn, sitting right there on your screen. Your Wi-Fi is one thing. Your internet is another thing. And this tool is about to grade them separately, one at a time.

Picture the trip your video call actually takes. It leaves your phone or laptop as a radio signal and floats across the air to a box on the wall. That hop through the air is the Wi-Fi road. From that box, your call runs down a cable, out to your internet provider, and across the world to whoever you are talking to. That long trip out to the world is the internet road. Two roads.

One box where they meet. And the device in your hand only touches the first road, the short hop through the air.



> Two roads, one box. The short hop through the air is your Wi-Fi. The long trip out to the world is your internet. They meet at the box on your wall, which is why people blame them as if they were one thing. They aren't.

When the call freezes, the freeze could be anywhere on either road. But “my Wi-Fi is broken” already picked a side before anyone measured anything. That is the trap. You blamed the Wi-Fi road because it is the part you think is the problem. The network name you typed a password into once. The little bars up in the corner. The internet road is invisible to you, so it never gets blamed, even though it falls down much of the time.

There is an old line I keep coming back to. *Wi-Fi always works*. It just might not work the way you want. Most of the time the radio hop is doing its job fine, and the slowness you are feeling is coming from somewhere else entirely. The trick is to stop guessing and let the device show you.

Run it, and read two answers, not one

Now tap **Check My Connection**. On an iPhone it asks once for permission, then reads your live connection in a single tap from then on.

The tool does two jobs in one pass, and watching it work is the lesson. It reads your live Wi-Fi hop, the radio link to the box on the wall. At the same time, it reaches out across the internet road to a real spot on the far side of your provider and measures that too. Two readings, because there are two roads. It will not blur them into one happy number.

Watch the two results settle. Each one grades its own road: **Strong**, **Moderate**, or **Weak**. Above them sits a headline written in plain English, and it points right at the slow part. That headline is the answer to “my Wi-Fi is broken.” Read it first.

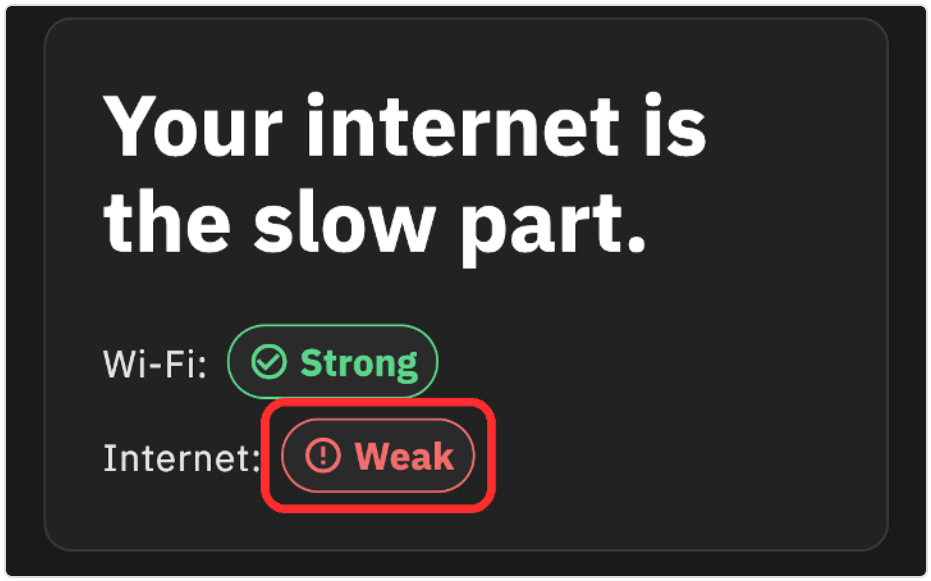
The screen says a little more than which road is weaker. In plain words, it tells you about how much faster or slower one road is than the other, so you feel the size of the gap without doing any math. It even nudges you to walk a few steps and run it again, because the answer moves as you move. Read that as a promise: the next chapter puts both roads on one screen and lets you watch them swing apart with your own feet.

There are four ways this can land, and each one tells you exactly what to do next.

The Wi-Fi result is the weaker grade. The radio hop is your weak link. Your internet feed is the healthier of the two. Something between you and the box on the wall is struggling. Good news: this is often a problem you can fix yourself, usually by getting closer or moving the box, and the next few chapters teach you how.

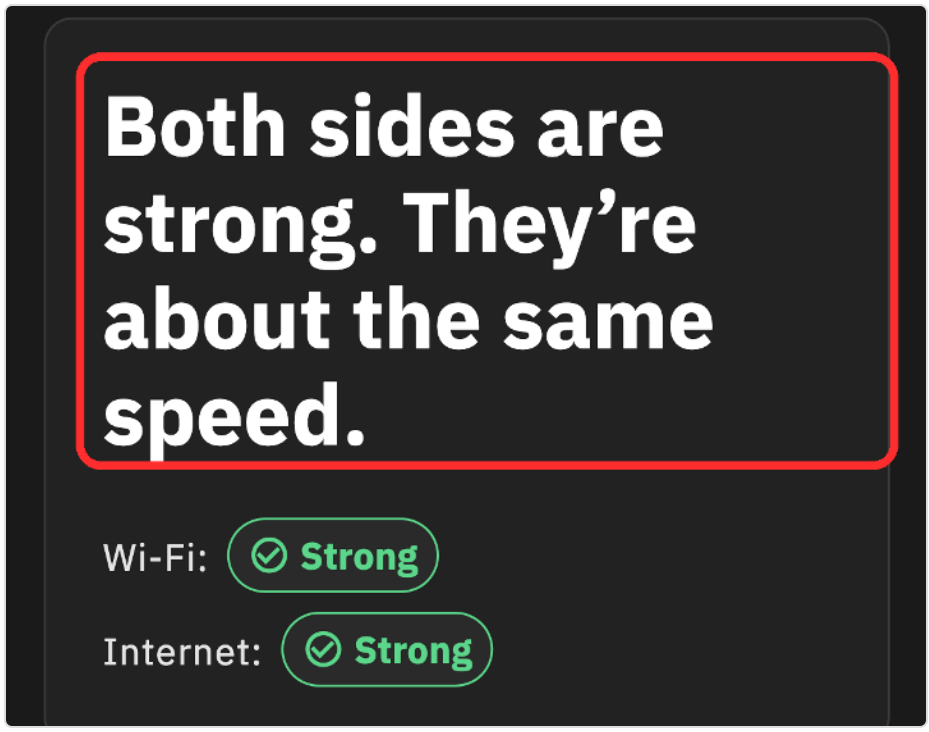
> Wi-Fi the weaker grade. Wi-Fi reads Weak, the internet reads Strong, and the headline points at the radio hop, the part you can usually improve yourself.

The Internet result is the weaker grade. Now it is flipped. Your radio hop is fine. The feed coming in from your provider is the part falling down. Standing closer to the box will do exactly nothing here. This one is a call to your provider, and it was never a Wi-Fi problem at all.



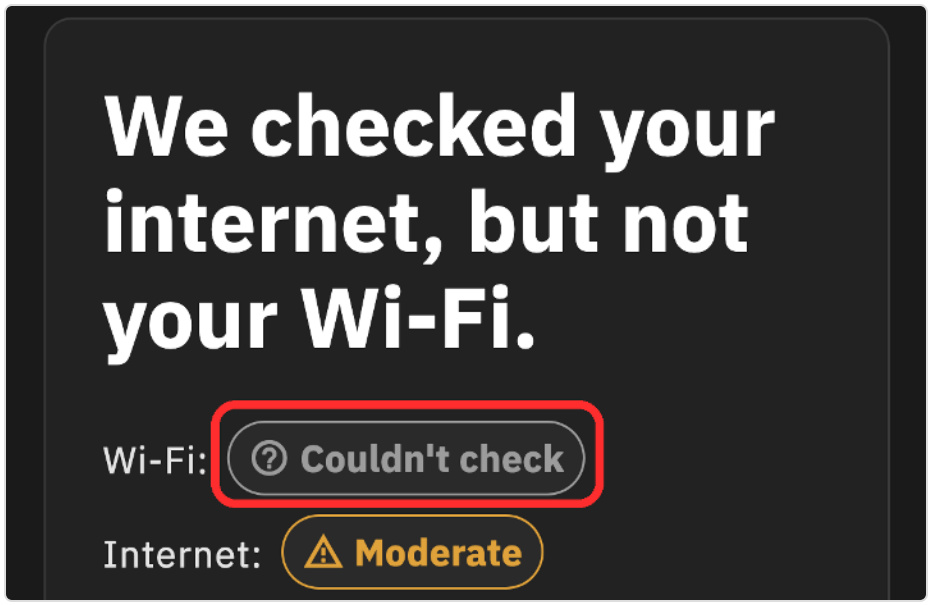
> Internet the weaker grade. No amount of standing near the box fixes this one. This is a phone call to your provider.

Both results read Strong. The screen says so in plain words: *Both sides are strong. They're about the same speed.* Both roads are healthy. So the thing that is actually slow is the one app or website you were using, or a server out in the world having a bad day. The screen tells you to look past your connection in the lines below that headline. This is the answer people refuse to believe, and it is the most useful one in the book.



> Both roads strong. The headline reads "Both sides are strong. They're about the same speed." Your connection did its job. The body tells you the slow part is the app, the site, or a server far away. Try a different app, or wait it out.

A result says "Couldn't check." Sometimes the tool reads one road but not the other. When that happens it tells you so, honestly, instead of inventing a number. An honest "I couldn't see that" beats a confident wrong answer every time. Read it as "go get a little more information," not as "everything failed."



> "Couldn't check" is not the same as zero. The tool will never hand you a fake number. When you see this, it just means go look a little harder, not that the world ended.

"Both strong" is the answer you need most

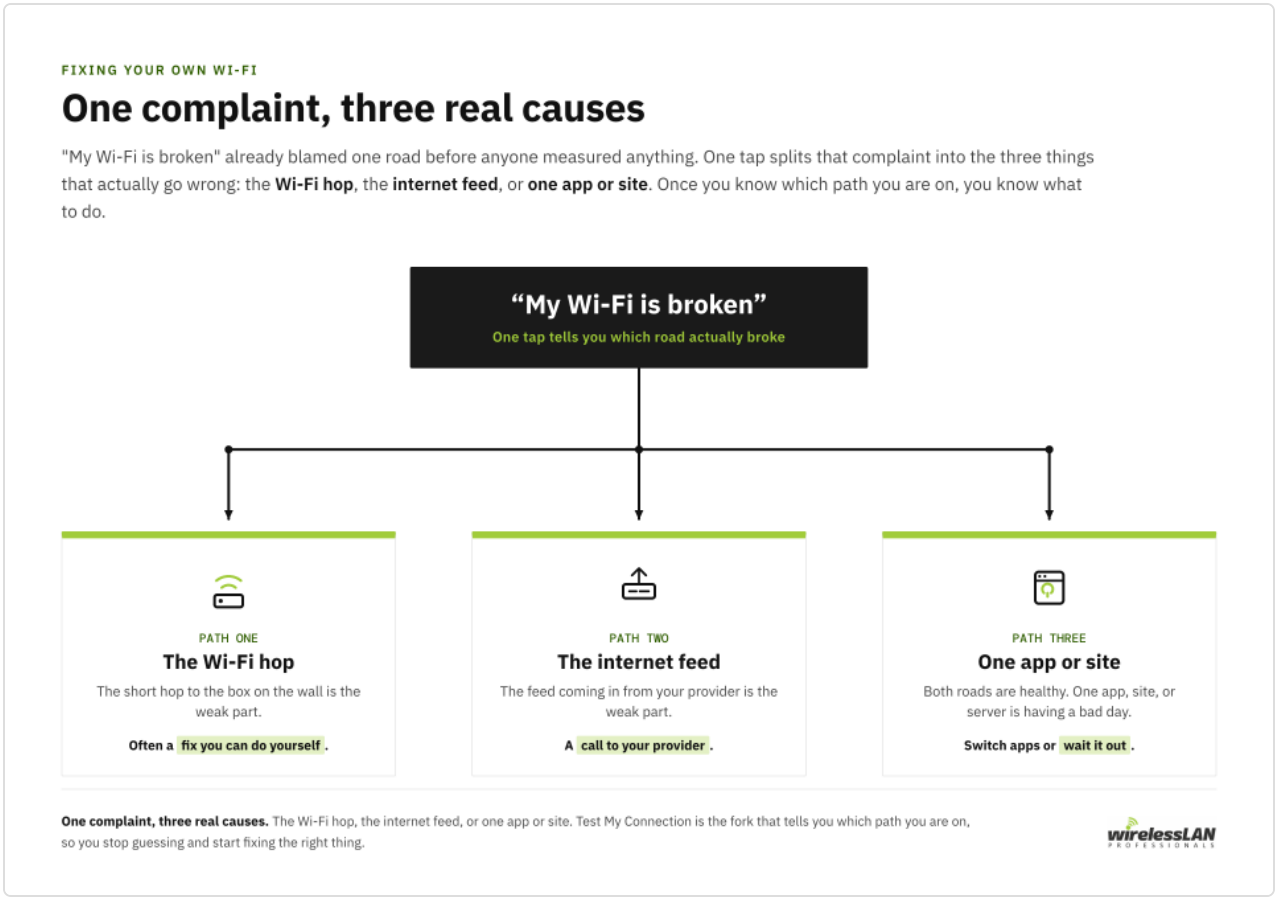
The answer that frustrates people the most is the one that helps them the most. Both results read Strong. They wanted a villain, and the tool just told them everything is healthy.

Here is what that answer is really saying. Your Wi-Fi delivered. Your internet delivered. The slowness you felt is living somewhere this tool cannot reach, and somewhere you don't own: one overloaded website, a video service choking during a busy hour, an app that broke on its own end. The connection did its job. The problem is past everything you control.

That is a gift, because it stops you from doing the three useless things people do when Wi-Fi "feels slow." They reboot the box that was working fine. They go stand right next to it for no reason. They call the provider and wait on hold to be told nothing is wrong. "Both strong" hands you the move that actually helps: try a different app, try a different site, or wait twenty minutes and let the far-end server recover.

There is one more reading worth knowing. The two results can also land low together, both Moderate or both Weak at once. That is a different message. "Both strong" means look past your connection. Both low means the connection itself is the limit right now, on both roads at the same time. That points at a real fix you own: better Wi-Fi, a better internet plan, or both.

When both roads grade low together, the problem will not fix itself. That shared low grade is the tool telling you where the work is.



> One complaint, three real causes. The Wi-Fi hop, the internet feed, or one app or site. Test My Connection is the fork that tells you which path you are on.

Back to those four words

Return to “my Wi-Fi is broken.” You now have a button that answers it in one pass.

That video call that kept freezing? Run Test My Connection during the next freeze. If the Wi-Fi result is weaker, you have a radio hop to chase, and you can usually fix it. If the Internet result is weaker, it is your provider, and standing nearer the box does nothing. If both read Strong, the call software itself is the culprit, and you just saved yourself an afternoon of rebooting the wrong thing.

Notice what just happened. You did not learn one single fact about radios or signal or channels. You learned that the complaint blames one road when the failure might be on the other, and you learned to read two answers where everyone else reads one. That alone puts you ahead of nearly everyone who has ever said “my Wi-Fi is broken.”

What this chapter can’t tell you yet is the *why*. When the Wi-Fi result grades low, what is your radio actually doing? And when something is slow, slow how? Slow in the way that wrecks a video call, or slow in the way that only annoys a big download? Those are different problems with different fixes, and the next chapters take them apart one at a time. You have the one-tap verdict now. Next we slow it down and look at why the two roads move on their own.

Do this now

Run Test My Connection three times, in three different spots. The point is to feel, in your own hand, that the two roads move on their own.

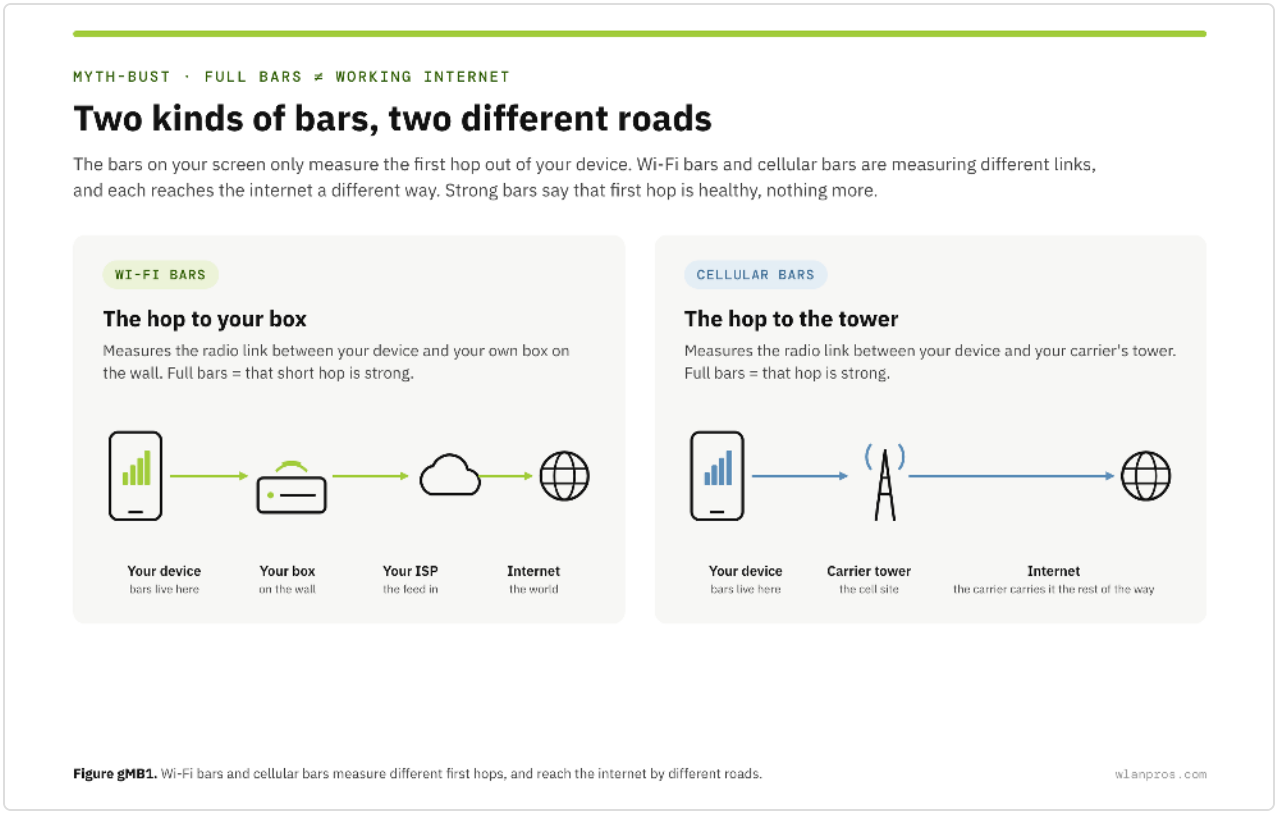
1. **Run it once where you are sitting right now.** Note the grade on each result. Read the headline and decide whether you agree with it before you read on.
2. **Walk to the farthest corner of your home and run it again.** Watch the Wi-Fi result. If it slips toward Weak while the Internet result holds steady, you just watched the radio road weaken while the internet road stayed exactly the same. Two roads, moving on their own.
3. **Run it one more time right next to the box on the wall.** The Wi-Fi result should be at its best here. If the Internet result is still the weaker one, no amount of standing close fixes it, and now you have the proof in your hand.

Three runs, and you will never again say “my Wi-Fi is broken” without first asking which road actually broke.

> **Myth-Bust: “Full bars means the internet is working.”**
>
> No. The bars in your corner only ever describe the first road, the short radio hop to the box on the wall. They say nothing about the internet road at all. You can sit under five strong bars with a dead internet feed. You can have a perfect internet feed sitting behind one weak bar. The bars and the internet are two separate facts about two separate roads, and the bars only ever spoke for the first one. So stop reading “full bars” as “everything’s fine.” It was never saying that. And here is the friendliest version of the same idea: if a Wi-Fi network ever asked you to sign in on a web page, type your room number, or accept the terms, your Wi-Fi already worked. That sign-in page traveled to you over the very Wi-Fi you are about to blame. The radio hop did its job. Look at the other road.

Note: Two kinds of bars, two different roads.

Look at the top of your screen and you will usually find two little stacks of bars, and they do not mean the same thing. The Wi-Fi bars, the little fan shape, only measure the short hop from your device to the box on your wall. From that box your traffic still has to travel out through a cable to your provider before it reaches the internet, and the Wi-Fi bars know nothing about that part. The cellular bars, the climbing stair-step, measure something else entirely: the link from your device to your carrier's nearest cell tower, which is its own separate road to the internet that never touches your box at all. Full Wi-Fi bars sitting on a dead internet feed is an everyday thing, because the Wi-Fi bars were only ever grading the hop to the box. And here is the part people miss in a dead spot at home: if your Wi-Fi bars are full but nothing loads, switching that one device off Wi-Fi and onto cellular sends it out the other road entirely, the tower instead of your box, and often everything starts working again. Same internet, a completely different road to reach it.



Two kinds of bars, two different roads. The Wi-Fi bars grade only the short hop from your device to the box on the wall, and your traffic still has to run from that box out to your provider before it reaches the internet. The cellular bars grade a completely separate road, your device straight to the carrier's tower and out to the internet from there, never touching your box. Same internet at the end of both, two different ways to get there, and neither stack of bars can speak for the other.

> Next: Chapter 2 takes the two roads apart on their own screen, so you can watch your Wi-Fi and your internet move independently and finally understand why the bars in the corner lie.

Chapter 2: The two roads (Wi-Fi vs the internet, made obvious)

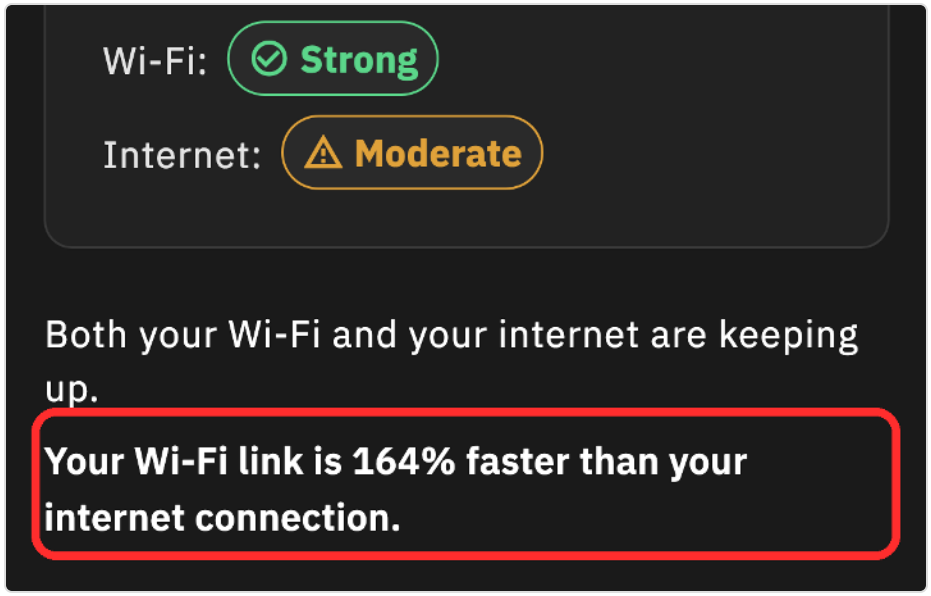
A faster internet plan does not make your Wi-Fi faster. That sentence is going to save you money, and it is the whole point of this chapter. The check in the last chapter handed you two grades because there are two separate things to grade, and most people have never once seen them apart. By the end of this chapter you will have watched your Wi-Fi and your internet move on their own, on one screen, and you will understand for good why the bars in the corner of your phone keep lying to you.

Here is the trap, stated plainly. Your home has two roads that carry everything you do online, and they meet at one box on your wall. The first road is the short hop through the air, from your phone to that box. That is your Wi-Fi. The second road is the long trip out from the box to your provider and the rest of the world. That is your internet. You pay your provider for the second road. You never pay anyone for the first one. So when someone sells you a bigger plan,

they are widening the second road and leaving the first one exactly as it was. If the slow part was the first road, you just paid more money to fix the wrong thing.

If you have ever upgraded your plan and the back bedroom was still slow, you already felt this in your own home. You did the obvious thing, you spent the money, and the problem sat there grinning at you. Now you are going to see why on one screen, instead of guessing.

Open the WLAN Pros Toolbox on your device. Tap **Wi-Fi vs Internet**. This is the screen built to put the two roads side by side and prove they move on their own.



> The Wi-Fi vs Internet screen. One plain verdict line that names which road is faster and by how much, with a tip telling you to walk around and watch it change. This is the screen that proves the two roads are two different things.

Two roads, side by side

Run it, and read the one line at the top. It says something like *your Wi-Fi is faster than your internet* or *your Wi-Fi is slower than your internet*, with a rough sense of by how much. That single line is doing something almost no one has ever seen. It is measuring both roads at once and telling you which one is the limit right now.

Think about what that means for a second. The tool just compared the short hop through the air to the long trip out to the world, and one of them came out smaller. Whichever one is smaller is the road that decides how fast everything feels. The bigger road does not matter,

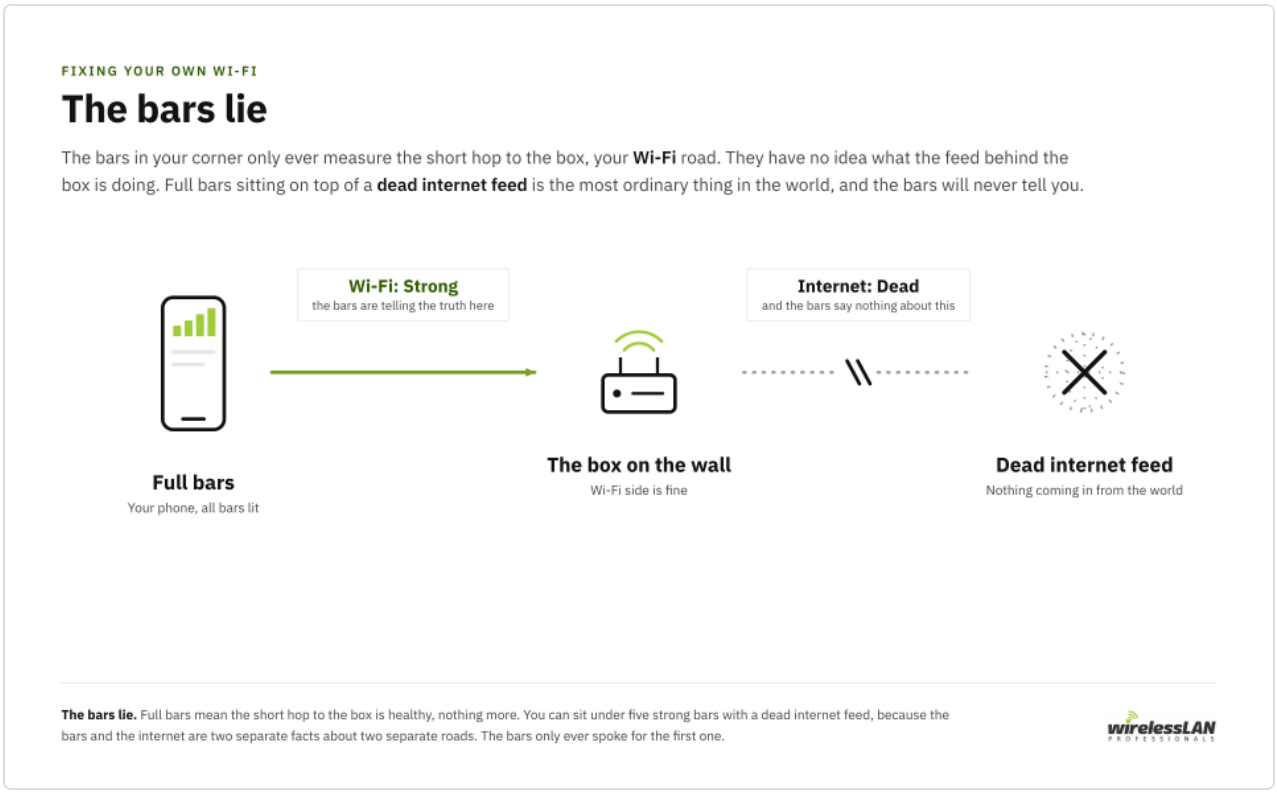
because traffic can only move as fast as the tightest part of the trip. A wide internet road feeding a narrow Wi-Fi road gives you narrow-road speed. A wide Wi-Fi road fed by a narrow internet road gives you narrow-road speed the other way. The smaller of the two wins, every time, and not in a good way.

This is where the plan upgrade falls apart. The plan only ever touches the internet road. If the verdict says your Wi-Fi is the slower of the two, a bigger plan widens a road that was never the problem. You can pay for the fastest internet plan your provider sells, walk to the back bedroom, and crawl, because back there the Wi-Fi road narrowed to a country lane and no amount of internet plan touches it.

Watch them move

Now do the thing the tip on the screen is asking you to do. Walk around your home and run it again in a few different spots. Watch the verdict flip.

Stand right next to the box on the wall and run it. Out here, close in, your Wi-Fi road is usually wide open, so the verdict often says your Wi-Fi is the faster of the two. The internet road is the limit, because the Wi-Fi hop has nothing in its way. Now carry the phone to the farthest corner of your home, behind a wall or two, and run it again. Watch the verdict swing the other way. Out there the Wi-Fi road narrows, sometimes a lot, while the internet road did not budge an inch. Same provider, same plan, same box, and the answer changed completely because you moved fifteen steps.



> The bars in your corner only ever measure the first road, the short hop to the box. They have no idea what the internet feed behind the box is doing. Full bars sitting on top of a dead feed is the most ordinary thing in the world, and the bars will never tell you.

That little experiment is the entire chapter in your hand. The internet road held steady while the Wi-Fi road changed under your feet. Two roads. One box. Moving on their own. The bars in your corner only ever watched the first road, the radio hop, and even then they only watched it loosely. They never once looked at the internet feed. So a screen full of bars has been telling you about a quarter of the picture and pretending it was the whole thing.

A hotel, and a hard lesson

I learned this one the hard way in a hotel, and the story makes the point better than any diagram.

The Wi-Fi in this place was beautiful. Strong everywhere, no dead spots, the kind of signal that lights up every bar on every phone. By every sign a normal person reads, this was great Wi-Fi. And it was useless. A web page took forever. A video would not start. Everyone in the

building was sure the Wi-Fi was broken, because the Wi-Fi is the part you can see, and the part you can see looked perfect.

It was not the Wi-Fi. The short hop through the air, from every phone to every box, was doing its job beautifully. The problem was the other road, the long trip out to the world, the feed the hotel was paying for. That road was a trickle. The whole building was trying to push everything it did through a pipe the size of a coffee stirrer. They had fantastic Wi-Fi. They had bad backhaul. The first road was wide open and the second road was nearly closed, and because everyone only ever looks at the first road, everyone blamed the wrong one.

Here is why that story matters in your own home. If that hotel had walked the building adding more Wi-Fi, buying stronger boxes, chasing fuller bars, they would have spent a fortune widening a road that was already wide open. The slow part was the road nobody was looking at. Your home is the same shape, just smaller. Before you spend a dollar widening either road, you want to know which one is actually narrow. The Wi-Fi vs Internet screen tells you in one line.

Back to the bigger plan

Return to the thing that started this chapter. Someone is about to sell you a faster internet plan to fix your slow Wi-Fi.

Run Wi-Fi vs Internet first, in the spot where it actually feels slow. If the verdict says your internet is the slower road, then fine, a bigger plan might genuinely help, and now you are buying it for a real reason instead of a hopeful one. But if the verdict says your Wi-Fi is the slower road, put your wallet away. A bigger plan widens the road that was already fine and leaves the narrow one exactly as narrow as it was. You would be paying every month, forever, to fix a problem you do not have.

Notice what you can do now that you could not do at the start of the chapter. You can stand in the slow spot, run one screen, and know whether the fix is a phone call to your provider or a few steps closer to the box. You can tell the difference between a road you pay for and a road you do not. That alone puts you ahead of almost everyone who has ever upgraded a plan in frustration and gotten nothing for it.

What this chapter cannot tell you yet is what is happening on that first road when it goes narrow. When your Wi-Fi is the slower one, what is your connection actually doing back there in the corner? Your device already knows, and it will show you five plain facts that explain the

whole thing. That is the next chapter. You have the two roads now. Next we walk up to the first one and read it.

Do this now

Run Wi-Fi vs Internet three times, in three spots, and watch the verdict move. The point is to see with your own eyes that the two roads are two different things.

1. **Run it right next to the box on the wall.** Read the verdict. Out here your Wi-Fi road is widest, so it will often say your Wi-Fi is the faster of the two. Remember that answer.
2. **Walk to the farthest corner of your home and run it again.** Watch the verdict swing. If it now says your Wi-Fi is the slower road, you just watched the radio hop narrow while the internet feed stayed exactly the same. Two roads, moving on their own.
3. **Picture the plan upgrade.** In whichever spot it felt slow, ask the screen which road was the limit. If it was the Wi-Fi road, a bigger internet plan would have changed nothing. You just saved yourself the bill.

Three runs, and you will never again let someone sell you a wider road to fix a problem on the other one.

> **Myth-Bust: "A faster internet plan means faster Wi-Fi."**
>
> No. A plan only ever touches one of your two roads, the long trip out to your provider and the world. It never touches the short hop through the air from your phone to the box on the wall, and that hop is the part that goes narrow in the back bedroom. You can pay for the fastest internet plan sold in your town and still crawl in the far corner of your own home, because back there it was the Wi-Fi road that narrowed, and the Wi-Fi road is not for sale. Whatever feels slow, run the check before you reach for your wallet. If your Wi-Fi is the slower road, a bigger plan is money handed over to fix a problem you do not have. The provider widened a road that was already wide and pocketed the difference.

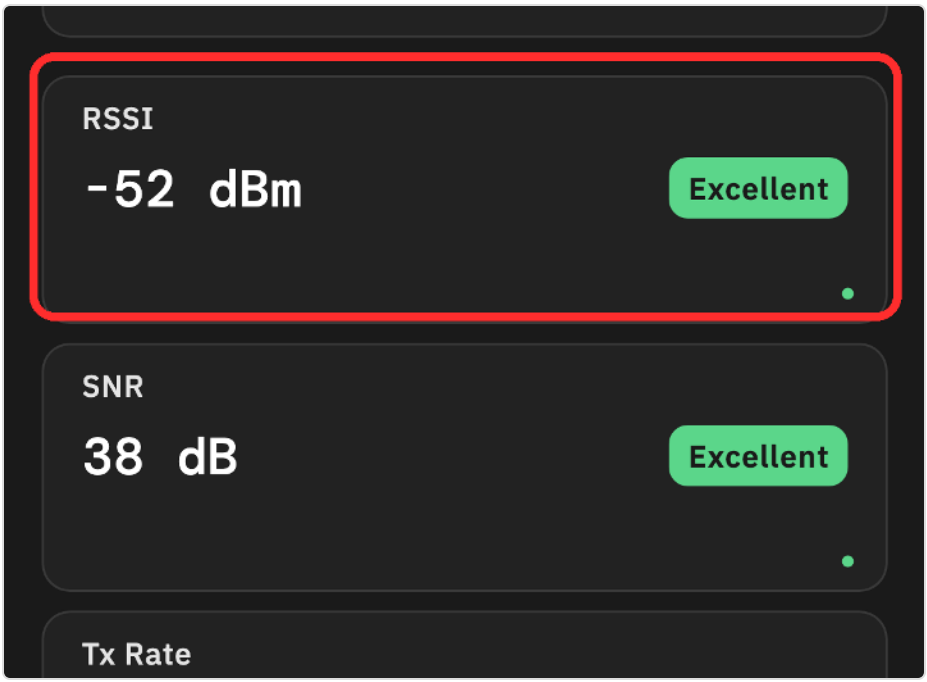
> Next: Chapter 3 walks right up to that first road and reads it. Your own device already knows five plain facts about your Wi-Fi connection, and once you can read them, a slow corner stops being a mystery.

Chapter 3: Reading your own connection (the five facts)

Your own device already knows everything you need to know about your Wi-Fi, and it will tell you in five plain words. That is the whole chapter, and it is going to turn a slow corner from a mystery into something you can read. You do not have to learn radios. You do not have to memorize a single number. You tap one button, and your connection lays out five facts in plain language, and each one is either fine or it is the problem. By the end of this chapter you will read a good connection and a bad one side by side and know, at a glance, the shape of each.

The last chapter handed you two roads and proved your Wi-Fi is the one you can usually fix yourself. This chapter walks right up to that road and reads it. When your Wi-Fi is the slower of the two, the reason is always one of five things, and your device already measured all five. It just never showed them to you in a way a normal person could use. The Wi-Fi Information screen does exactly that. Five facts, five plain meanings, no math.

Open the WLAN Pros Toolbox on your device. Tap **Wi-Fi Information**. On an iPhone it asks once for permission and then reads your live connection in a single tap. Read the five things it shows you. We will take them one at a time.



> A good connection. The right network, a fast lane, room to breathe, an Excellent signal, and a healthy link speed. This is the shape you want, and once you have seen it, the bad one is obvious.

The five facts your device already knows

Five things decide whether your Wi-Fi works. Your device reports all five, and here is what each one means in plain language, with no number you have to remember.

Which network. This is the name of the Wi-Fi you are actually connected to right now. It sounds too simple to matter, and it is the single most common surprise in this whole book. Devices grab onto a network on their own, and they often grab the wrong one: the slow guest network, the neighbor's signal you joined once on a visit, the far-away box when a closer one was right there. Before you chase anything else, read the name and make sure your device is on the network you meant to be on. Half the time, the fix is right here on the first fact.

Which band, the lane you are in. Your Wi-Fi runs in one of a few separate lanes, and which lane you are in matters more than almost anything else. Think of them as lanes on a road. The slow outer lane is the old one, named 2.4. It reaches far but it crawls, and

everyone's old gadgets are crammed into it, so it is forever congested. The fast lane is named 5. It does not reach quite as far, but it moves, and it is where you want to be for anything that matters. The newest, fastest, emptiest lane is named 6, and if your device and your box both have it, that is the best seat in the house. The one bad sign here is simple: if you are stuck in the slow 2.4 lane, that alone can explain a lot of misery.

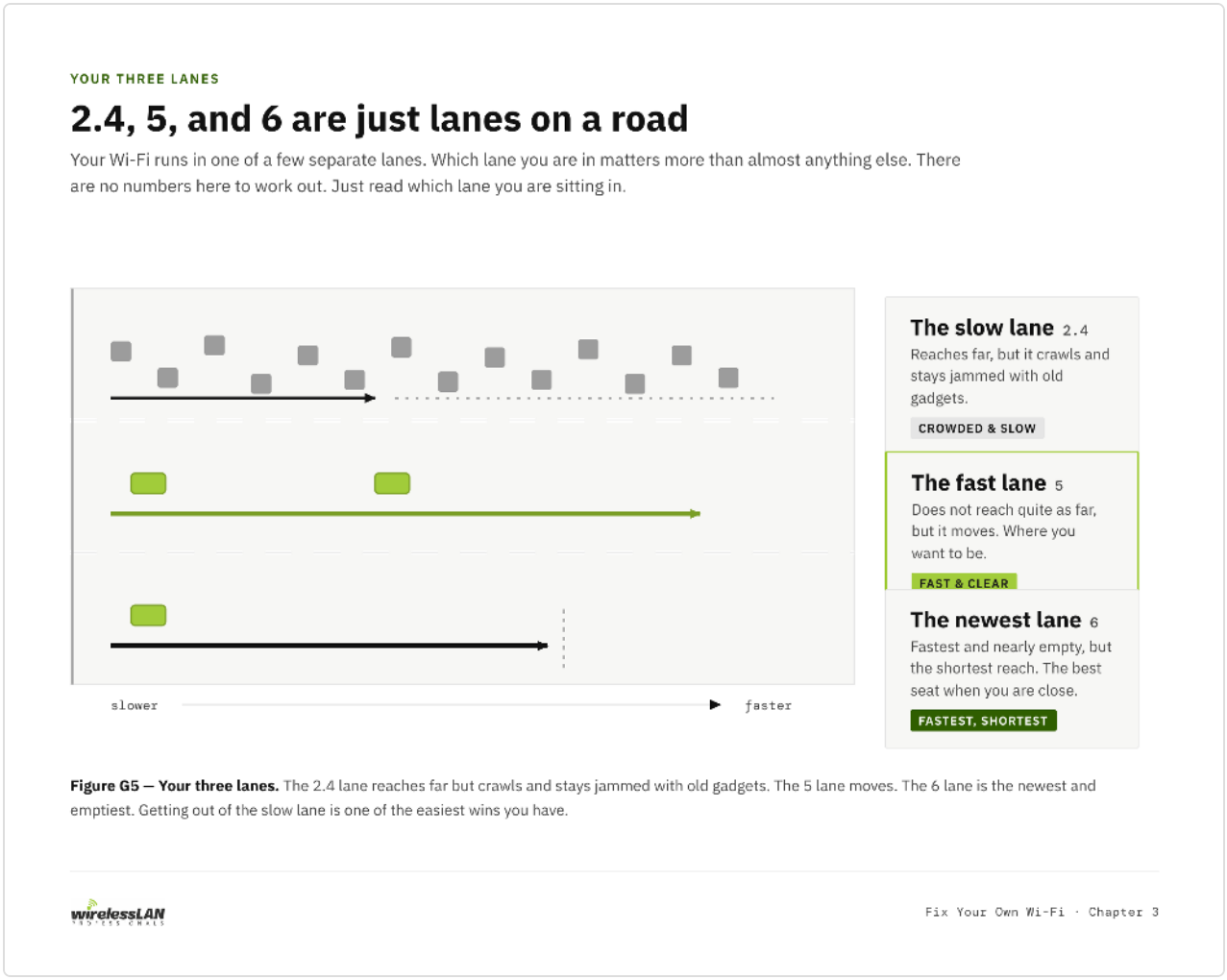


Figure G5 — Your three lanes. The 2.4 lane reaches far but crawls and stays jammed with old gadgets. The 5 lane moves. The 6 lane is the newest and emptiest. Getting out of the slow lane is one of the easiest wins you have.

> Your three lanes. The 2.4 lane reaches far but crawls and stays jammed with old gadgets. The 5 lane moves. The 6 lane is the newest and emptiest. Getting out of the slow lane is one of the easiest wins you have.

The channel, and whether it is crowded. Inside each lane there are spots to sit, and if everyone in the neighborhood is sitting in the same spot, everyone slows down. This is the part of Wi-Fi that is just plain crowding. Your box picked a spot, and your device will tell you whether that spot is busy. A crowded channel feels like a slow connection even when your

signal grades Excellent, because you are taking turns with every other home stacked into the same spot. Excellent signal, crowded channel, still slow. It happens constantly, and it surprises everyone.

The signal grade, how well you hear the box. This is the one everyone already thinks they understand, the bars in the corner grown up into a real reading. Your device grades how clearly it hears the box on the wall, from **Excellent** at the top, through **Good** and **Fair**, down to **Poor** when you have drifted too far. Excellent means you and the box are having an easy conversation. Fair means you are straining to hear each other across too much distance or too many walls. This matters, a lot, but hold one thought until the Myth-Bust at the end of this chapter: it is one of five facts, not the whole story.

The link speed, how fast this conversation is actually going. This is the speed your device and your box agreed to talk at, right now, on this connection. It is not your internet plan and it is not a promise on a box in a store. It is the live, honest speed of the conversation happening this second. When the signal is Excellent, the lane is fast, and the spot is not crowded, this number is healthy and everything feels quick. When the signal slips to Fair or you are stuck in the slow lane, this drops, and a low link speed is the plainest sign that the radio hop is your problem.

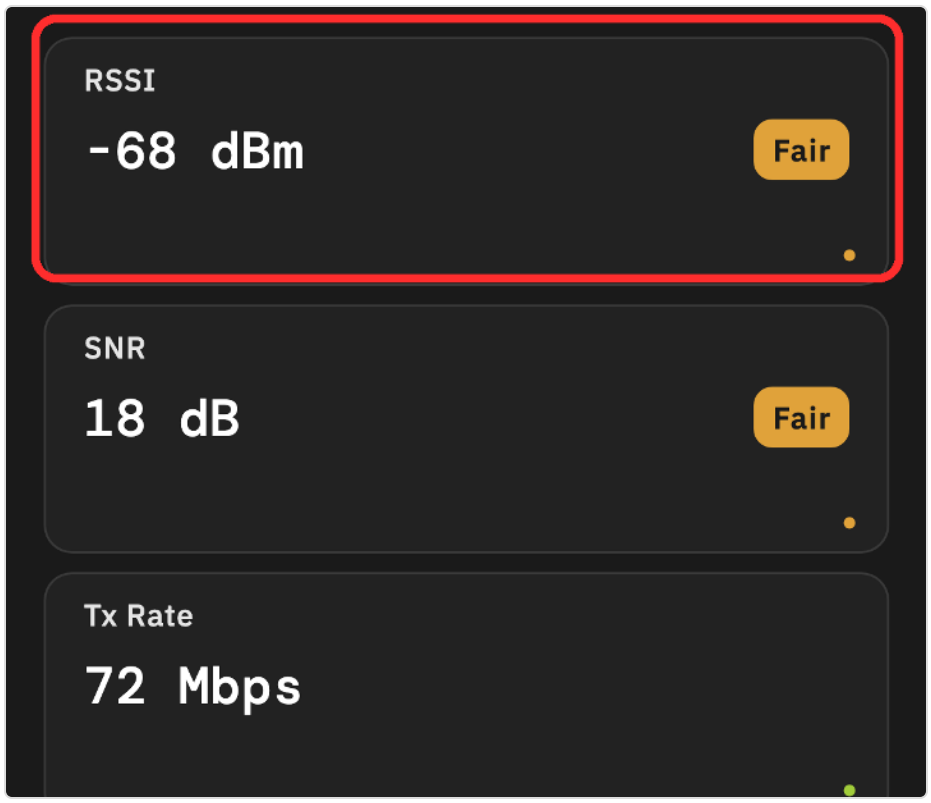
> The five facts, on one card. Which network you are on, which lane you are in, whether the lane is crowded, how well you hear the box, and how fast you are actually talking. Read these five and you have read your Wi-Fi. There is nothing else to memorize.

A good connection, and a bad one

Now look at the two screens side by side, because the shapes are what stick.

The good one reads like a clean story. You are on the network you meant to be on. You are in a fast lane, the 5 or the 6. The spot is not crowded. The signal is Excellent. And the link speed is healthy, because all four of the other facts lined up. Every fact agrees, and the connection feels quick. That is the shape you are looking for, and once you have seen it, you will recognize it anywhere.

The bad one tells on itself the moment you read it. Maybe you are stuck in the slow 2.4 lane. Maybe the spot is crowded, every neighbor stacked on top of you. Maybe the signal is only Fair because you wandered too far from the box. And down at the bottom, the link speed is low, because all of that rolled downhill into one slow conversation. You do not need a single number to see what went wrong. The slow lane, the crowding, and the Fair signal are sitting right there in plain words, and the low link speed is the bill they added up to.



A bad connection, telling on itself. Stuck in the slow 2.4 lane, sitting in a crowded spot, only a Fair signal, and a slow link speed at the bottom. You can read what is wrong in plain words, with no number to interpret.

This is the gift of the five facts. A slow corner used to be a single useless feeling, the vague sense that the Wi-Fi was bad. Now it is five readable facts, and one or two of them will be the obvious culprit. You stop guessing and start reading. And almost every one of these has a fix you can do yourself, which is exactly where the next chapters go.

What you can do with this already

Walk the five facts the next time something feels slow, in order, and most of the time the problem names itself.

Start with the network. Are you even on the right one? Then the lane. Are you stuck in the slow 2.4 lane when a fast one was available? Then the spot. Is your channel crowded? Then the signal. Is it only Fair because you drifted too far from the box? By the time you reach the link speed at the bottom, you usually already know why it is low, because one of the four facts above it told you. Five plain words, read top to bottom, and the mystery is gone.

Notice what just happened, because it is the same trick as the last two chapters. You did not learn one fact about radios or frequencies or how any of this works under the hood. You learned to read five plain words your device was already showing you, and to know which one is the troublemaker. That is all reading your own connection ever was.

What this chapter cannot do yet is fix any of it. Knowing you are stuck in the slow lane, or sitting in a crowded spot, or straining against a Fair signal is the diagnosis, not the cure. The good news is that the cures are simple, you can do most of them from your couch, and you can watch these exact five facts improve as you do. That is where we go next. You can read your connection now. Next we start moving the readings in the right direction.

Do this now

Open Wi-Fi Information and read your own five facts, then change one thing and watch them move. The point is to feel that these are live, and that they answer to what you do.

1. **Tap it once, right where you are sitting.** Read all five, top to bottom. Which network, which lane, is the spot crowded, what is the signal grade, what is the link speed. Say each one out loud in plain words. You just read your Wi-Fi.
2. **Walk to the far corner of your home and tap it again.** Watch the signal grade slip from Excellent toward Fair, and watch the link speed at the bottom drop with it. You are seeing distance turn into a slower conversation, live, in your hand.

3. **Walk back next to the box and tap one more time.** Watch the signal climb back to Excellent and the link speed recover. You just proved, with your own feet, that the readings are real and that getting closer to the box moves them. Hold onto that. It is the first fix in the next chapter.

Three taps, and the five facts stop being a screen full of words and become five things you can actually read about your own home.

> **Myth-Bust: "More bars always means better Wi-Fi."**
>
> No. The bars are only one of the five facts, the signal grade, and an Excellent signal carrying nothing is still nothing. You can sit under a perfect, full-bar signal and still crawl, because you are stuck in the slow 2.4 lane, or jammed into a crowded spot with half the neighborhood, or on the wrong network entirely. The bars never knew about any of that. They only ever measured how well you hear the box, not whether the lane was fast, not whether the spot was crowded, not whether you were even on the right network. An Excellent signal is a good thing to have, but it is one fact out of five, and the other four can sink you while the bars sit there looking perfect. So when the bars are full and the Wi-Fi still drags, do not argue with your own eyes. Read the other four facts. One of them is the real story.

> Next: Chapter 4 takes the word "slow" apart, because slow how matters. The slow that freezes a video call is a different problem from the slow that drags a big download, and each one has its own fix.

Chapter 4: Slow how? (the four flavors of slow)

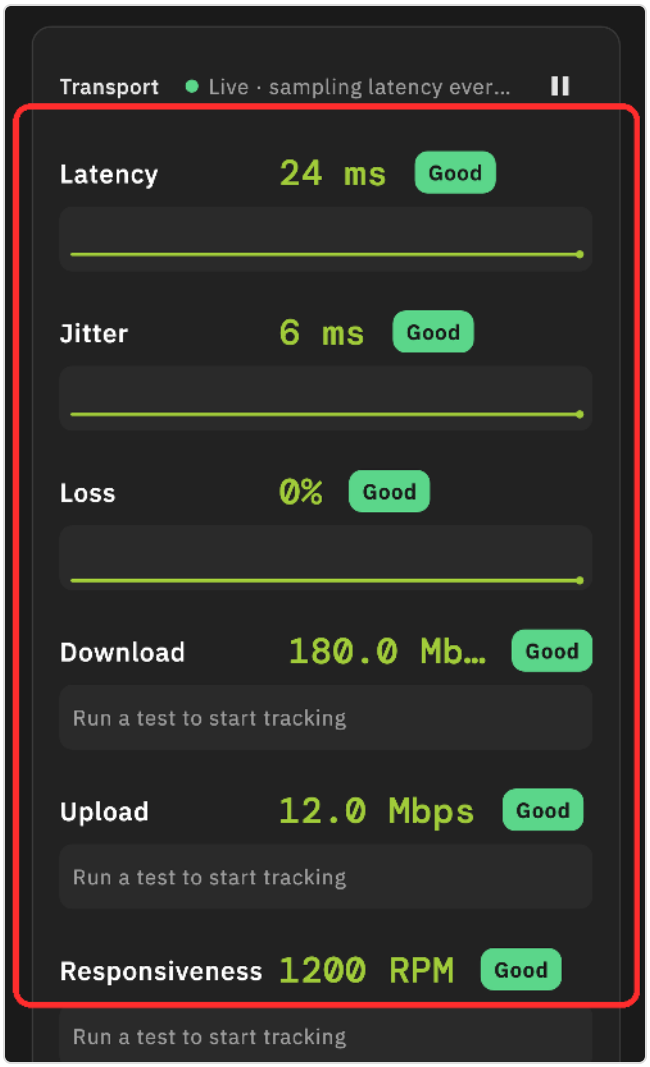
“Slow” is four different problems wearing one word, and the four have four different fixes. That is why “my Wi-Fi is slow” almost never gets solved by the thing people try first. The page that will not load is a different problem from the call that freezes and unfreezes, which is a different problem from the big download that crawls, which is a different problem from the one app that stutters while everything else is fine. By the end of this chapter you will run one screen that grades all four at once, separately, and you will know which one actually bit you. That is the whole game: stop saying “slow” and start saying which kind.

I have spent over twenty-five years listening to people describe slow, and I have learned that the word tells me almost nothing. A friend says the Wi-Fi is slow, and I have to ask four follow-up questions before I know what they even mean. Did a page hang forever? Did your voice on the call chop into robot noises? Did a movie take an hour to download? Or was it all fine except for that one app that keeps spinning? Those are four separate complaints, and

only one of them is even about the thing people usually go reboot. The trouble is that one tired word, “slow,” gets stretched over all four, so everyone chases the same useless fix for four different problems.

Here is the idea most people never get told. There is no single number that tells you whether your connection is good. You have been handed one your whole life, the big download number from a speed test, and it has been quietly lying to you, because it only measures one of the four flavors and stays silent about the other three. So let’s go look at the one screen that measures all four and refuses to blur them into a single happy score.

Open the WLAN Pros Toolbox on your device. Tap **Network Quality**. Don’t read anything into it yet. Just look at how many rows there are.



> The Network Quality screen, showing six separate readings instead of one big number. Each row is graded on its own. That separation is the whole point.

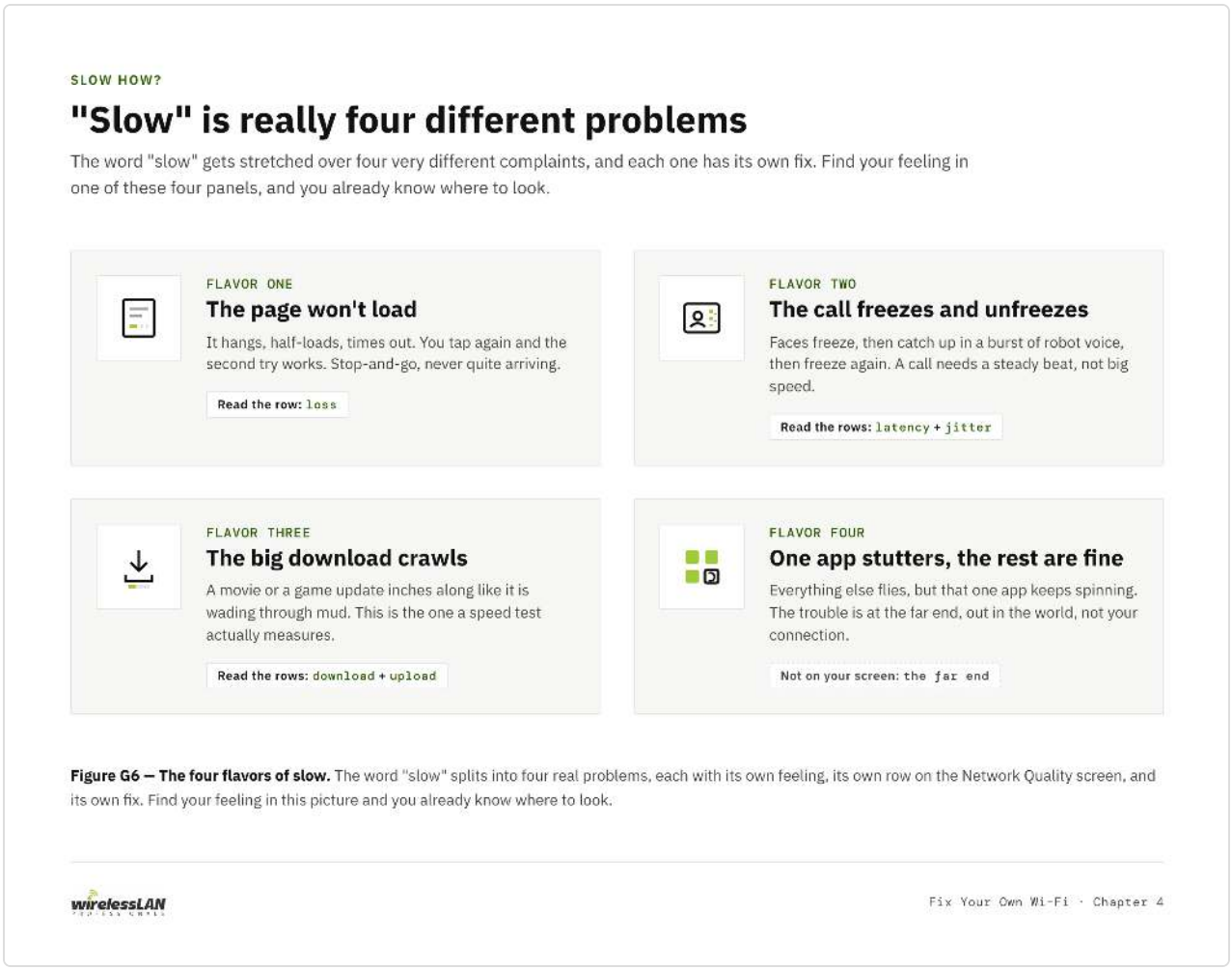
Six rows, no magic number

The first thing you will notice is what is missing. There is no giant number at the top. No single score, no one percentage, no "your connection is 87 out of 100." Instead there are six rows, each measuring a different thing, each graded on its own as **Excellent**, **Good**, **Fair**, or **Poor**.

People are so used to the one-number speed test that the six rows feel like the app forgot to add them up for you. It did not forget. It refused. There is a thing I have said in front of a lot of rooms, and it is the most useful sentence in this chapter: the number does not matter, what matters is whether your stuff works. A single score hides exactly the thing you need to see, which is *which kind* of slow you have. Add the six rows into one number and you have thrown away the answer.

Think of it the way a doctor thinks about you. When you walk into the office, nobody hands you one number for "health." They check your blood pressure, your temperature, your heart rate, each one its own reading, because a fever and high blood pressure are different problems with different fixes. Rolling them into a single "health score" would be useless, and a little dangerous. Network Quality treats your connection the same honest way. Six readings, each meaning its own thing, none of them pretending to be the others.

Now here is the part that makes the six rows useful instead of just thorough. They sort cleanly into the four flavors of slow. You do not have to learn all six names. You have to learn the four feelings, and which row to look at for each one.



> The four flavors of slow. The word “slow” splits into four real problems, each with its own feeling, its own row on the screen, and its own fix. Find your feeling in this picture and you already know where to look.

The four flavors, one at a time

Flavor one: the page will not load at all. You tap a link and it just hangs. Not slow, stuck. It spins, maybe it loads halfway, maybe it times out and you tap it again and the second time it works. This jerky, stop-and-go, “try it again” feeling is the fingerprint of loss. Loss means some of the little packages your connection sends out never arrive, so they have to be sent again, and that retry is the pause you feel. On the screen, look at the **loss** row. When loss grades Fair or Poor, this is your flavor. Pages hang, things half-load, and clicking again sometimes fixes it because the second try gets through.

Flavor two: the call freezes and unfreezes. You are on a video call and the other person turns into a frozen statue, then suddenly catches up in a burst of robot voice, then freezes again. Audio chops. Faces stutter and jump. This is the flavor that wrecks meetings, and it has nothing to do with how fast your download is. It comes from two rows working together: **latency**, which is how long each little package takes to make the round trip, and **jitter**, which is how uneven that timing is. A call does not care about big speed. It cares about a steady, even beat. When latency is high or jitter is bad, the beat falls apart, and a call cannot smooth that over. This is the single most misdiagnosed flavor in the world, because the download number can look gorgeous while the call is a disaster.

Flavor three: the big download crawls. You are pulling down a movie, a game update, a giant file, and the little bar inches across like it is wading through mud. This one, and only this one, is the flavor the old speed test actually measures. It lives in the **download** row, with **upload** as its mirror for sending big things out, like backing up photos or posting a long video. When download grades Poor, big transfers crawl. That is real, and it matters when you move large files. But notice how narrow it is. It is one of four flavors, and it is the only one a speed test ever saw. Every time someone runs a speed test and declares the Wi-Fi good or bad, they are judging all four flavors using the one meter that can only see this one.

Flavor four: everything is fine except that one app. Every page loads, every call is smooth, every download flies, and yet that one app, that one game, that one website keeps spinning and stalling. Here is the honest answer, and it is the one people least want to hear: this flavor is not on your screen at all. None of the six rows will grade it, because the problem is not in your connection. It is at the far end, out in the world, on a server you do not own and cannot reach from your couch. The sixth row, **responsiveness**, gets closest, because it measures how snappy the whole round trip feels under load, but even an Excellent responsiveness reading next to a stuttering app is the app's own fault, not yours. When five things work and one does not, the one is broken, not the road.

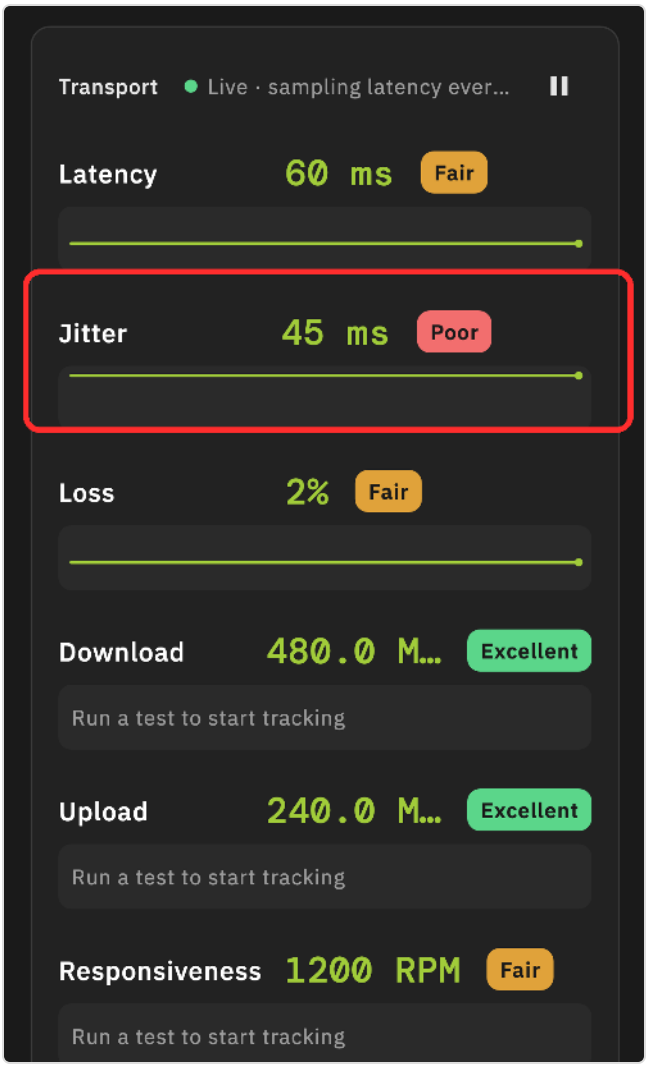
Four flavors. Four feelings. Match your feeling to the flavor, and you have already done the hard part, which is naming the real problem instead of the word "slow."

The call-killer the speed test never sees

Let me show you the trap in one screen, because it is the most important picture in this chapter.

Picture a connection with a beautiful download grade, **Excellent**, the kind of number you would screenshot and brag about. And right next to it, jitter graded **Poor** and loss graded

Fair. By the only meter most people own, this connection is fantastic. By the meter that matters for a video call, it is a wreck. The download is gorgeous and the call still freezes, because a call never cared about the download. It cared about the steady beat, and the steady beat is broken.



> The call-killer profile. A gorgeous Excellent download grade sitting right next to Poor jitter and shaky Fair loss. A speed test would call this connection excellent and send you off happy, while your next video call freezes solid. The download was never the part that mattered for the call.

This is the exact connection that fools everyone. The person runs a speed test during a frozen call, sees a big healthy number, and concludes the Wi-Fi is fine and the call software is broken. Half right. The call software is fine. The connection had a great download and a broken beat, and the one meter they owned could only see the half that looked good. Network

Quality shows you both halves, side by side, so you can point straight at the row that actually bit you. For a frozen call, that row is almost never download. It is jitter, or loss, or both.

Once you have seen this picture, you cannot unsee it, and you will never again trust a single download number to tell you whether your connection is good.

Do this now

Run Network Quality twice, and watch the rows move on their own, the same way the two roads moved on their own back in Chapter 1.

1. **Run it once, sitting still, with nothing else going on.** Read all six rows. Do not add them up. Just notice which grade Excellent or Good and which do not. This is your baseline.
2. **Now make the connection work hard, and run it again.** Start a big download, or have someone in the house stream a movie, then run Network Quality while that is happening. Watch what changes. Very often the download row holds up fine while jitter and loss get worse under the load. That is you watching, in your own hand, the call-killer flavor appear, the one a speed test would have told you was not there.
3. **Name your real complaint.** Think of the last time your connection felt "slow." Which of the four flavors was it actually? Page hanging, call freezing, download crawling, or one app stalling? Whatever it was, you now know which row to look at, and "slow" has stopped being one word and become four real problems.

Two runs, and you will never again accept "slow" as an answer, from yourself or anyone else.

> **Myth-Bust: "A speed test tells you if your Wi-Fi is good."**
>
> No. A speed test measures one flavor of slow out of four, and then struts around pretending it judged the whole thing. It looks at how fast a big download moves, which is genuinely the right meter for exactly one situation: pulling down a movie or a giant file. For everything else, it is the wrong tool wearing a confident face. It says nothing about the page that hangs, because that is loss, and the speed test does not grade loss. It says nothing about the call that freezes, because that is jitter and latency, and the speed test does not grade those either. You can run a speed test, see a giant glorious number, feel great about it, and then watch your very next video call freeze into a frozen statue. The big number was real. It was just answering a question you were not asking. The number does not matter on its own. What matters is whether your stuff works, and "your stuff" is four different things. So the next time someone runs a speed test and declares the Wi-Fi good or bad, you can smile, because you know they just judged a four-part exam by reading one answer.

> Next: Chapter 5 takes everything you have learned to read and turns it into action. You will run the app before a fix and after a fix, and watch the grade actually move, so you finally get the one thing home Wi-Fi has never given you: proof that what you did worked.

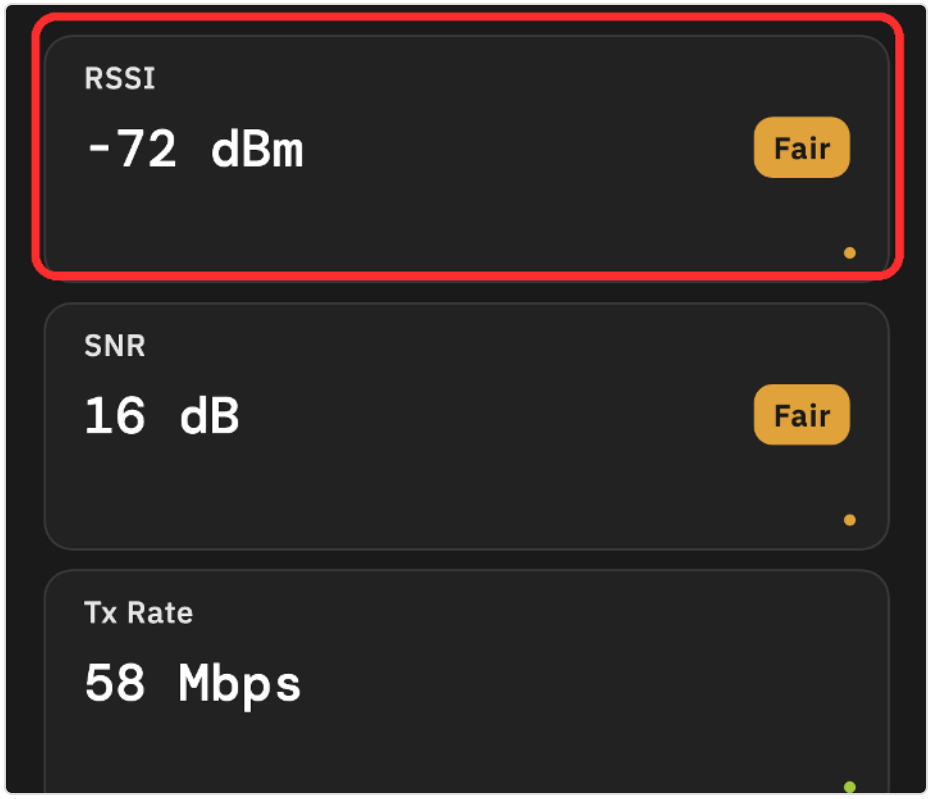
Chapter 5: The fixes you can actually do yourself

Most home Wi-Fi complaints get solved by five plain fixes you can do from your own home in the next ten minutes, with no tools and no technician. Get closer to the box. Get the box up off the floor and out of the cabinet. Move onto the faster network. Stop standing behind a wall or a fridge. Reboot the right box, once. And the reason these fixes have sat there unused for years is not that they are hard. It is that nobody ever gave you a way to see whether they worked. This chapter hands you that missing piece. You will read a grade, do one fix, read the grade again, and watch it move. The app becomes the thing home Wi-Fi has never had: a feedback loop.

Here is something I have come to believe after a long time fixing this stuff. The reason so much home Wi-Fi is bad is not that people are careless or dumb. It is that they have never been punished for the small mistakes, and never rewarded for the small fixes. You buried the box in a cabinet and the Wi-Fi still sort of worked, so nothing told you that you had just

thrown away half your signal. You stood three walls away and it still sort of worked, so nothing told you that one step closer would have fixed it. Wi-Fi is forgiving in the worst way. It keeps limping along when you do it wrong, so you never learn. The app on your device changes that, gently. It shows you the grade before, you make a change, and it shows you the grade after. For the first time, the Wi-Fi tells you the truth about what you just did.

So before any fix, you take a reading. After the fix, you take it again. Two screens hold this whole chapter together. **Wi-Fi Information** shows you the live grade of the radio hop, the one you read about back when you learned the five facts. **Test My Connection** gives you the plain one-tap verdict on whether the whole thing got better. Run one or both before, do the fix, run them again after. Watch the grade move. That is the loop. Everything below is just five good reasons to run it.

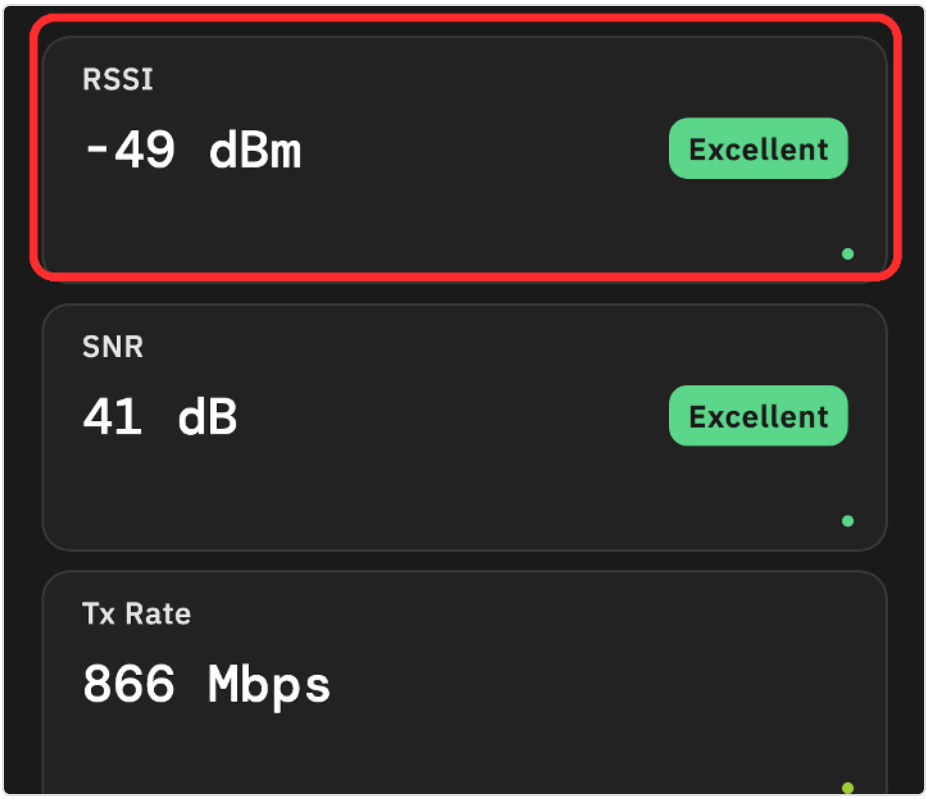


> The “before” reading. Fair signal, the slower network, a low link speed. This is your starting line. Do not skip it. If you do not know where you started, you cannot prove you improved.

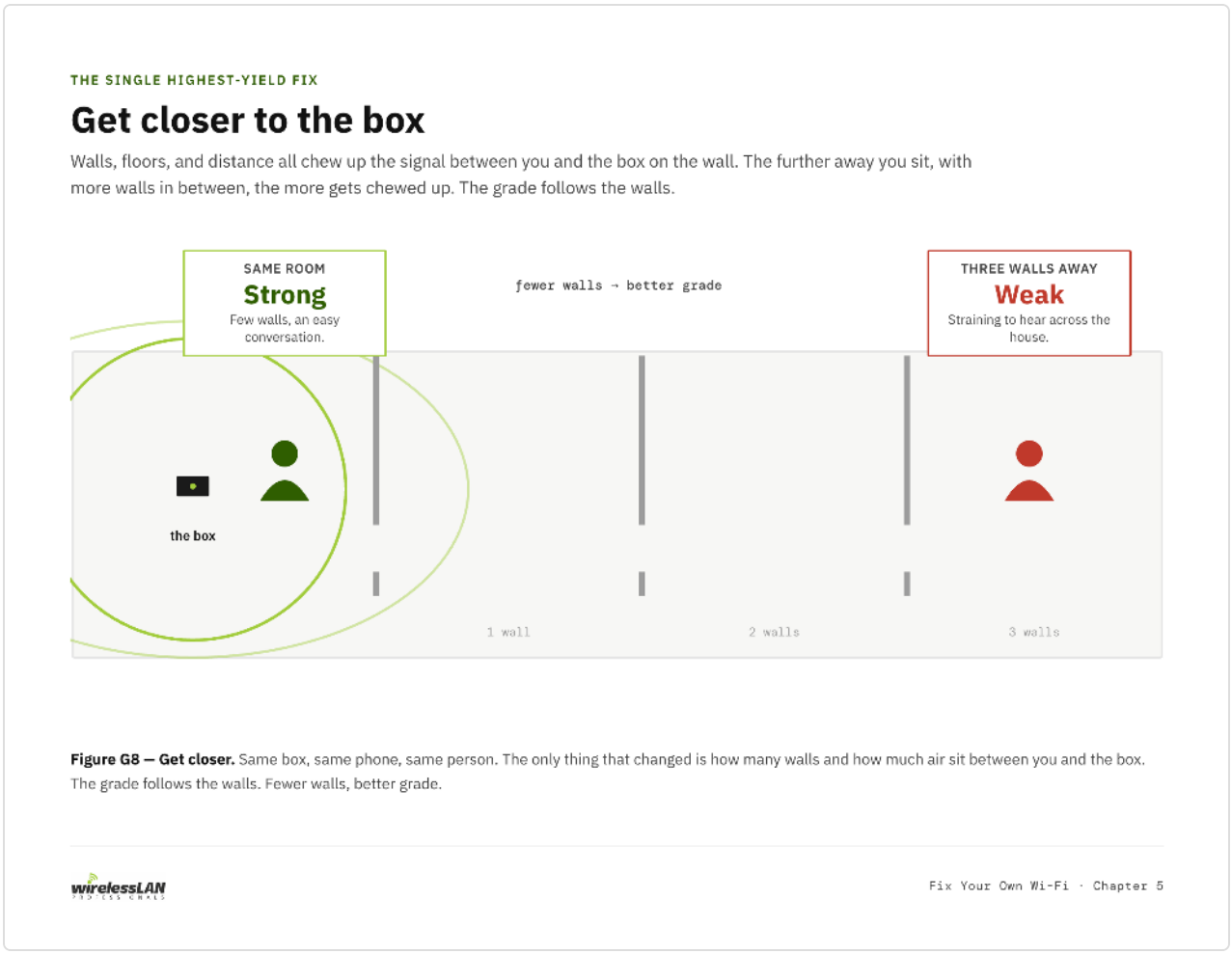
Fix one: get closer

The single highest-yield thing you can do for bad Wi-Fi is also the dumbest-sounding. Get closer to the box. Walls, floors, furniture, and distance all chew up the radio signal between you and the box on the wall, and the further away you sit, the more gets chewed up. Half the "slow Wi-Fi" in the world is just somebody sitting too far from the box with too many walls in between.

You do not have to believe me. Take the before reading on Wi-Fi Information right where you normally sit. Note the signal grade. Now walk into the same room as the box, or just halfway there, and read it again. Watch the signal grade climb. That is distance, made visible. The closer you get, the better the radio hop, every single time.



> The "after" reading, from closer to the box. Same screen, same network, a better grade and a faster link. Put it next to your "before" reading from earlier and you are looking at proof the fix worked, in your own home, in your own words.



> Get closer. Same box, same phone, same person. The only thing that changed is how many walls and how much air sit between you and the box. The grade follows the walls. Fewer walls, better grade.

Now, you cannot rearrange your whole life around the box. But you can learn where your home's dead corner is, and you can stop being surprised when the far bedroom is the worst room in the house. And if the room where you actually work or watch movies is the dead corner, that is your clue that the box itself is in the wrong place, which is the next fix.

Fix two: get the box up and out

Where the box lives matters as much as where you sit. And almost everyone hides their box in exactly the wrong spot. On the floor. In a cabinet. Behind the television. Down in the basement next to the cable that comes in. People tuck it away because it is ugly, and every place they tuck it strangles the signal.

The box sprays its signal out in roughly a sphere, strongest out to the sides and weakest straight up and straight down. Put it on the floor and you have aimed half of that sphere into the concrete. Bury it in a wooden cabinet and you have wrapped it in a muffling blanket. Shove it behind a big metal-backed television and you have parked a wall right in front of it. Each of these quietly costs you signal you paid for and never got.

The fix is plain. Get the box up off the floor, ideally up high, and get it out in the open air where it can breathe. Out of the cabinet. Off the floor. Away from big metal. Not behind the couch. You do not need to mount it perfectly. You just need to stop actively smothering it. Take the before reading, move the box up and out, then take the after reading and watch the grade improve across the rooms you care about.

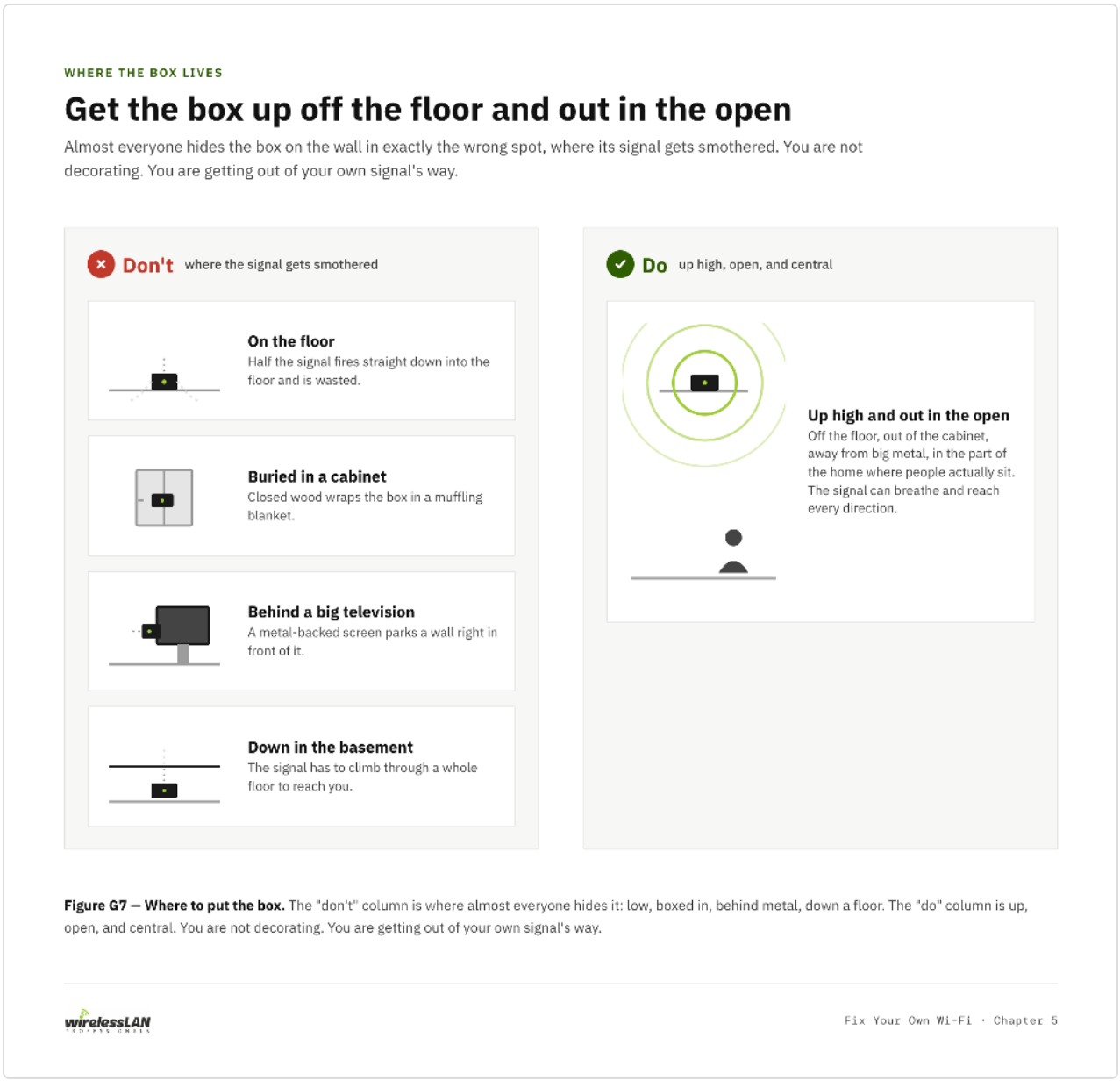


Figure G7 — Where to put the box. The "don't" column is where almost everyone hides it: low, boxed in, behind metal, down a floor. The "do" column is up, open, and central. You are not decorating. You are getting out of your own signal's way.

> Where to put the box. The don't column is where almost everyone hides it: low, boxed in, behind metal. The do column is up, open, and central. You are not decorating. You are getting out of your own signal's way.

Fix three: get on the faster network

Most homes are quietly running two or three networks at once, and a lot of devices sit on the slow one out of pure habit. Back when you read the five facts, you met the bands, the lanes on the road: the older 2.4 GHz lane that is crowded and slow but reaches far, the 5 GHz lane that is much faster, and on the newest boxes the 6 GHz lane that is faster still over shorter distances. A device stuck in the slow lane feels slow even when everything else is perfect.

Run Wi-Fi Information and read which network you are on. If it shows the 2.4 GHz lane and you are anywhere near the box, you are leaving speed on the table. The fix is to join the faster network. Sometimes the faster lane is a separate network name with "5G" or "5 GHz" in it, and you simply pick that one in your device's Wi-Fi list and forget the slow one. Sometimes the box hands both lanes out under one name and quietly parks you on the slow one. Either way, read the before, switch to the faster network, read the after, and watch the link speed jump.

There is one honest catch, and it is the reason the slow lane still exists. The faster lanes do not reach as far through walls. So the right move is the faster network when you are close enough, and you will know you went too far when the grade starts to fall. Get on the fast lane, stay on it until the walls make you drop back. The app tells you exactly where that line is.

Fix four: stop standing behind walls and metal

This one is small and it is the one people refuse to believe, so I will be blunt. What sits between you and the box matters more than how far away the box is. A thick wall, a brick chimney, a mirror, a metal filing cabinet, a refrigerator, a fish tank full of water, all of these block the radio signal hard. You can be physically close to the box and still get a bad grade because a refrigerator is standing in the way.

The test takes ten seconds. Read the grade where you are. Now take one step sideways, or lean so the big metal thing is no longer directly between you and the box, and read it again. If the grade jumps from a small sideways step, you just found a blocker. Water and metal are

the worst offenders, which is exactly why the kitchen and the bathroom are so often the dead spots, and why the chair you love happens to have a metal bookshelf right behind it.

You cannot move the chimney. But you can move your chair a foot, put the box on the same side of the wall as where you sit, and stop being baffled that one specific spot is always terrible. The blocker was the problem, not the Wi-Fi.

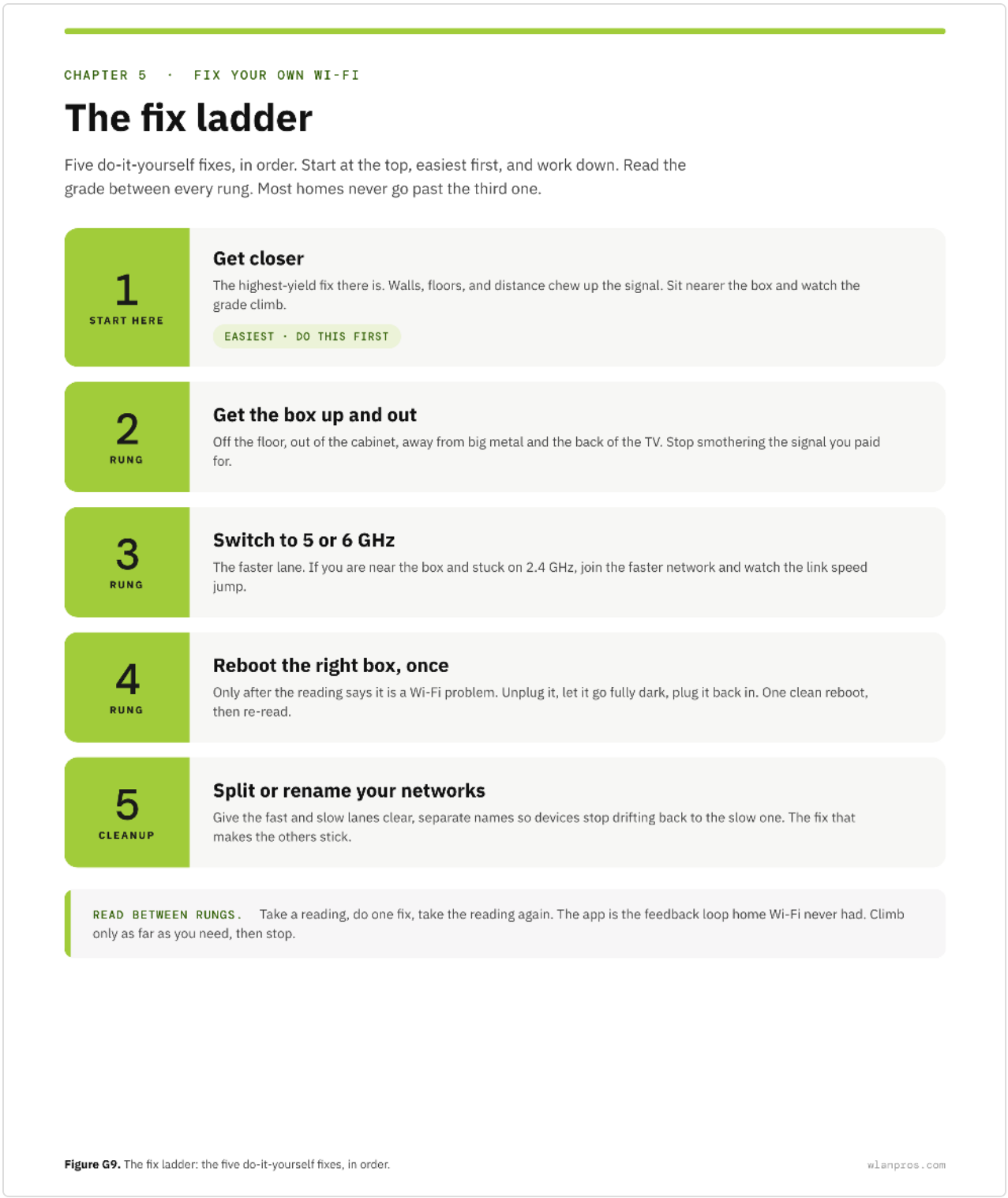
Fix five: reboot the right box, once

Now the famous one. Rebooting. It does sometimes help, which is exactly why it has become the thing everyone tries first, last, and always. But here is what has gone wrong. People reboot the box that was working fine, they reboot it over and over, and they reboot it before they have any idea whether the box was even the problem. That is a nervous habit.

Do it right and do it once. First, read the grade and find out whether this is even a Wi-Fi problem. If Test My Connection told you it was the internet feed or one specific app, rebooting the box on the wall does nothing, and you can stop now and save yourself ten minutes. If it really is the connection, then reboot, and reboot the right thing. In many homes there are two boxes: the one your provider's cable plugs into, and the box that sprays out the Wi-Fi, and sometimes they are the same single box. Unplug it, wait until it has fully gone dark and quiet, then plug it back in and let it fully wake up before you judge anything. One clean reboot. Then take the after reading and see whether the grade actually moved. If it did, good. If it did not, rebooting was never the answer, and now you know, instead of doing it a fourth time and hoping.

Fix six, the cleanup: split or rename your networks

A last one that prevents the others from undoing themselves. If your devices keep wandering back onto the slow lane on their own, or you can never tell which network is which, the cleanest cure is to give the networks clear, separate names. Many boxes let you split the fast and slow lanes into two clearly labeled network names, so you can pick the fast one on purpose and stop your devices from quietly drifting back to the slow one. This is a little more involved, and it lives in the box's own settings, but the payoff is that the four fixes above actually stick. You stop fighting the same battle every week.



The fix ladder. Climb it bottom to top, easiest first, and take a reading between every rung. Most homes never need to climb past the third one. The whole point of the app is that you can see exactly which rung fixed it.

Do this now

Pick one fix and prove it works on your own connection. This is the whole loop in five minutes.

1. **Take the before reading.** Sit where the Wi-Fi annoys you most. Run Wi-Fi Information and note the signal grade and which network you are on. Run Test My Connection and note the verdict. Write both down. This is your starting line.
2. **Do exactly one fix.** Just one, so you know what caused the change. Get closer, or move the box up and out, or join the faster network, or step out from behind the blocker. One change only.
3. **Take the after reading.** Run the same two screens again from the same spot, or the new spot, and compare. Did the signal grade climb? Did the verdict improve? Watch the grade move. That movement is the proof, and it is the thing you have never had before.
4. **Climb the ladder only as far as you need.** If one fix solved it, stop. You are done. If it did not, do the next fix and read again. Most homes never get past the third rung.

One fix, one before, one after, and you have done the thing nobody ever taught you to do: you changed something and you measured whether it helped.

> **Myth-Bust: "Rebooting always fixes it."**
>
> No. Rebooting fixes some things some of the time, and the rest of the time it is ten minutes of your life you will never get back. The trouble is that rebooting is the one move everyone knows, so it gets used for every problem, including all the problems it cannot touch. Reboot the box and it does nothing for the wall between you and it. Nothing for the refrigerator in the way. Nothing for the box stranded down in the basement. Nothing for a tired server out in the world having a bad day. People reboot because it is the only move in their pocket, and then they reboot again, and again, because they cannot see whether it helped, so they keep trying the one thing they know. That is the real damage of "reboot always fixes it." It crowds out the four fixes that would have actually worked, and it sends you in circles because you have no way to tell whether anything changed. So do it right. Read first. Find out if it is even a Wi-Fi problem. If it is, reboot the right box, once, and then read the grade to see if it moved. A reboot you can measure is a fix. A reboot you just keep doing is a worry bead.

> Next: Chapter 6 covers the problems that are not your Wi-Fi at all, the ones where the honest move is to stop fixing and pick up the phone, and exactly how to tell when you have crossed that line.

> **Note: Flip it off and back on, and let it re-choose.**

> Before you move a single piece of furniture, try the quietest fix there is. Drop your phone into airplane mode for a few seconds, then turn it back off. On a laptop, switch Wi-Fi off and back on. When your device reconnects, it gets to choose all over again which box on the wall it joins, and a lot of the time it picks a better one than the tired box it was clinging to. Phones and laptops are stubborn. Once they latch onto a box, they hang on long after you have walked into another room with a closer, stronger box sitting right there. The airplane-mode flip breaks that grip and lets your device pick fresh, from where you are standing right now. No moving around, no rebooting the box on the wall, no unplugging anything. Just a quick off-and-on that often fixes the Wi-Fi right where you are.

Chapter 6: When it’s not the Wi-Fi at all

Sometimes the most useful thing your device can tell you is that there is nothing for you to fix. That sounds like bad news. It is the opposite. The fixes in the last chapter are real, and they solve most of what goes wrong at home. But a fair number of slow days are not your Wi-Fi, not your job, and not yours to fix from the couch. The skill this chapter teaches is recognizing those days the moment they arrive, so you stop pouring effort into a problem that was never yours. By the end you will know the four times to put the phone down, and exactly who to hand the problem to.

I have watched people fight problems they could not win for an entire evening. They moved the box. They unplugged it, counted to ten, plugged it back in. They walked around the house holding the phone in the air like they were trying to get a signal on the moon. And the whole time, the thing that was actually slow was sitting in a building three states away, on a server they will never touch, having a bad night all on its own. Every minute they spent was wasted, because they never stopped to ask the one question that ends the fight. Is this even mine to fix?

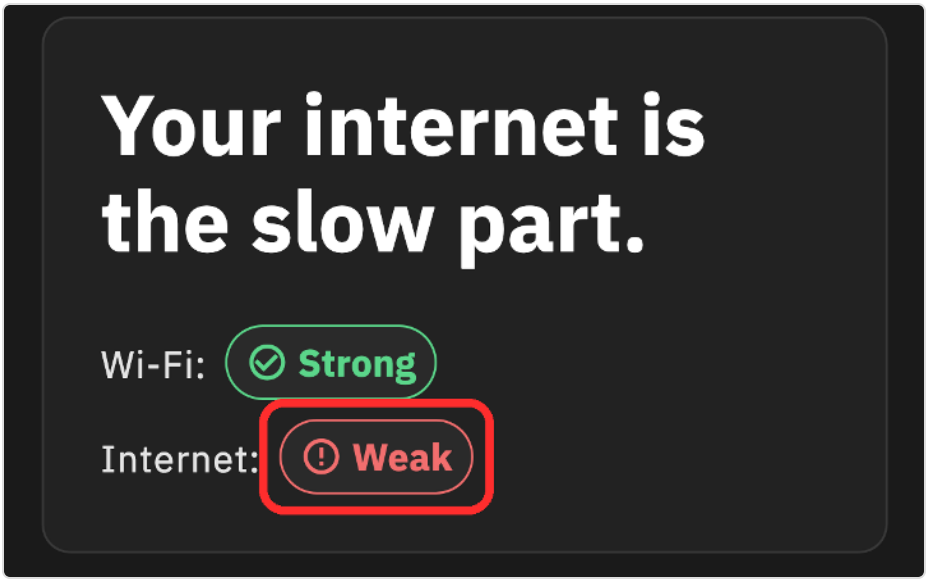
There are four times the answer is no. The internet feed coming into your home is dead or weak. A sign-in page is waiting for you and you never finished it. One app or one website is broken while everything else is fine. Or the network is bigger than a home, and it needs a real professional. Each one has a tell, and your device shows you the tell. Once you can read it, you stop wasting evenings. So let's go learn the four handoffs.

The same tool, read for the door instead of the fix

Open the WLAN Pros Toolbox and tap **Test My Connection**, the same screen from Chapter 1. You already know how to run it. This time you are going to read it differently. In Chapter 1 you read the result to find the slow road. Now you are going to read it to find the door, the moment it tells you to stop and hand off.

Run it.

When the two results settle, two of the four outcomes are not instructions to *you*. They are instructions to someone else, and your device is handing you the proof to give them.



> Internet the weaker road. In Chapter 1 this told you the slow part. Here it tells you something more useful: stop working. Standing near the box does nothing. This is a call to your provider, and your device just gathered the evidence for the call.

Door one: the internet feed is dead or weak

When the Internet result is the weaker grade, or worse, when it reads Weak while your Wi-Fi reads Strong, you have hit the most common false alarm there is. The radio hop in your home is doing its job. The feed coming in from your provider is the part falling down. Every fix in the last chapter is now useless to you, because all of them improve the radio hop, and the radio hop was never the problem.

This is the moment people waste the most time. They feel slowness, they blame Wi-Fi out of habit, and they start rearranging furniture. Your device just told you not to. The problem is on the cable coming into the building, or out past it, on equipment your provider owns and you do not. There is one move here, and it is a phone call.

Make the call. And here is the part that changes how the call goes: you are not calling to say “my internet feels slow.” You are calling with a reading. More on exactly what to say in the next chapter, but the short version is that a person holding a measured result gets taken seriously, and a person describing a feeling gets told to reboot and call back.

Door two: a sign-in page is waiting, and you never finished it

This one is not about a result on the screen. It is about something you saw earlier and walked away from. You joined a Wi-Fi network at a hotel, a coffee shop, an airport, or the guest network at an office, and a web page appeared asking you to type a room number, accept the terms, or click a button that said “connect.” And you got distracted, or you closed it, or you assumed it would sort itself out. It will not. Nothing works until you finish that page.

Here is the part almost nobody understands, and it is the single most freeing idea in this whole book.

If a network ever asked you to sign in on a web page, your Wi-Fi already worked.

Read that again. That sign-in page did not arrive by magic. It traveled to your device over the very Wi-Fi you are about to blame. The radio hop carried it to you. The connection to the box succeeded. The only thing standing between you and the internet is a page you have not finished, a button you have not pressed, a box you have not checked. There is no radio problem here. There never was. Go back to that page and complete it.

I have said this on stage more times than I can count, in stronger words: if you see a sign-in page, you do not have a wireless problem, ever. The page is the last step you skipped, and finishing it is the whole fix.

Door three: one app, one website, one bad night

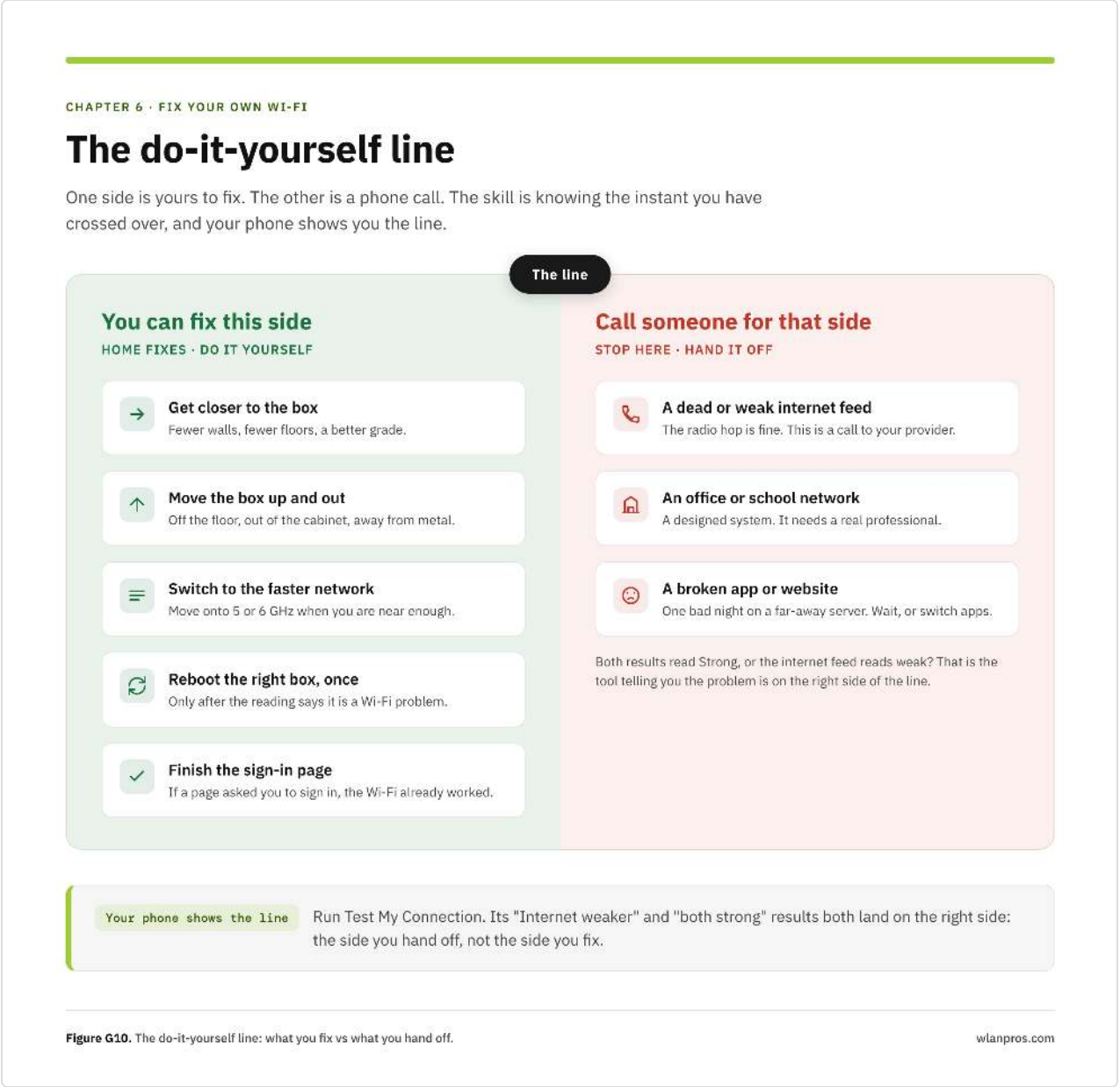
When both results read Strong, you already know this answer from Chapter 1, and it bears repeating here because it is a handoff too. Both roads are healthy. The slow thing is one app, one website, or one server out in the world having a rough night. It is not your Wi-Fi, it is not your internet, and it is not anything in your home.

The handoff here is not to a person. It is to time, or to a different app. The fix is to wait it out, or to do the same thing somewhere else. If one streaming service is buffering and everything else plays fine, the problem is that one service, not your home. If one website spins and ten others load instantly, that one website is having the bad night, not you. Switch apps, switch sites, or come back in twenty minutes. The far-end server will recover on its own, and you did not have to touch a thing.

Door four: the network is bigger than a home

The last door is the office, the school, the clinic, the shop. The moment your Wi-Fi problem lives in a building with more than a few of these boxes on the walls, more than a handful of people leaning on it at once, you have crossed a line. The fixes in this book are home fixes. They assume one box, a few rooms, a small number of people. A real office network is a designed system, and when it goes wrong it needs someone who designs them for a living.

This is not a failure on your part. It is the honest edge of the do-it-yourself line. You can still run Test My Connection, and you absolutely should, because the reading you hand to the office IT person or the installer is the same gift it is to the provider. But the fixing is theirs. Moving a box in an office can make things worse for fifty other people, because in a real network the boxes are placed to work together, and yanking one out of position breaks that on purpose.



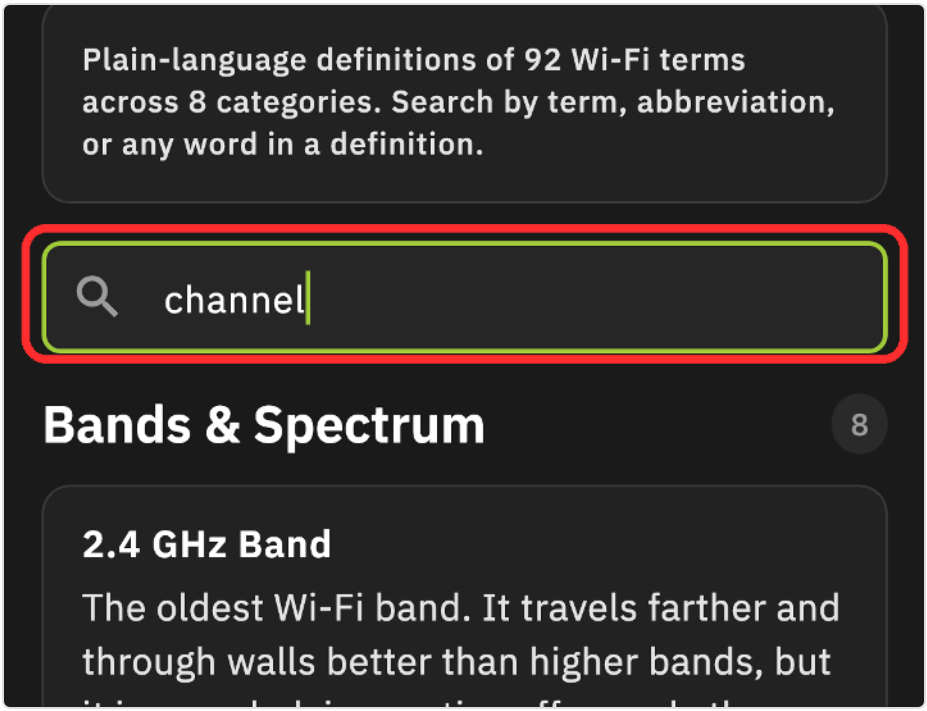
> The do-it-yourself line. The left side is yours, and the last chapter taught you all of it. The right side is not, and the skill is knowing the instant you have crossed over. Your device shows you the line. Test My Connection's "Internet weaker" and "both strong" results are both on the right.

When they use a word you don't know

There is one more thing your device gives you for the handoff doors, and it is for the conversation itself. When you call the provider, or talk to the office IT person, or the

landlord's installer comes by, they will use words. Band. Channel. Latency. Throughput. The names of things, said quickly, as if you should already know them. You do not have to.

Open the WLAN Pros Toolbox and tap **Glossary**. Type the word they used, say they said "channel," and the screen filters straight to it. You get a plain-English meaning, no decibels, no math, just what the word means in a sentence you can read. Do it right there in the conversation if you need to. There is no shame in looking up a word. The shame is on the person who used it to make you feel small.



> The Glossary, with a word a provider or installer just used. Here it is "channel": type the word, read the plain meaning, stay in the conversation. Your device hands you the vocabulary so nobody can talk over your head.

Putting the four doors together

Step back and look at what you can now do. Most of this book taught you to fix things. This chapter taught you the opposite skill, and it is just as valuable: knowing when not to. A dead feed is a phone call. An unfinished sign-in page is a page to go finish. One broken app is a wait or a switch. An office network is a professional's job. Four doors, each with a tell, each showing on the device in your hand.

The reader who knows these four doors stops losing evenings. They stop rebooting boxes that were fine. They stop moving furniture to fix a server three states away. They make the right phone call the first time, holding the right evidence. That is not a smaller skill than fixing. On a lot of nights, it is the bigger one.

Do this now

The goal here is to practice recognizing a handoff before it happens, so you catch the next one in real time.

1. **Run Test My Connection right now and decide which side of the line you are on.** If both results are Strong, you are on the right side of the line tonight, and there is nothing for you to fix. Sit with that. That is the answer most people refuse to believe.
2. **Find the last sign-in page you skipped.** Think back to the last hotel, airport, or coffee shop. Did a page ask you to accept terms or type a room number? Picture it. That page was proof your Wi-Fi worked. Carry that idea forward: next time, go finish the page first, because finishing it is the fix.
3. **Look up one word in the Glossary.** Pick any word a tech has used on you that you nodded along to without knowing. Type it in. Read the plain meaning. Now you own that word, and the next time someone says it, you will not flinch.

Three small habits, and you will never again spend an evening fighting a problem that was never yours.

> **Myth-Bust: "If the website is slow, the Wi-Fi is bad."**
>
> No. One slow website is one slow website. When both results read Strong, your Wi-Fi carried your request to the box, your internet carried it out to the world, and both did their jobs. The slow part is sitting on a server you do not own, in a building you will never visit, having a bad night entirely without your help. You can prove this in ten seconds: open a different website. If it loads fast, the first one was the problem, not your connection. People blame the Wi-Fi because it is the part they can see and the part they think they can fix. But the connection already delivered. And here is the friendliest version of the same truth, the one to keep in your pocket forever: if a network ever asked you to sign in on a web page, your Wi-Fi already worked. The page proved it.

> Next: Chapter 7 turns these readings into a short, credible script. When you hand off to the provider, the installer, or the office IT person, you will hand over facts, not feelings, and you will be taken seriously the

> first time.

Chapter 7: Talking to the people who can fix it

When the problem is not yours to fix, the most powerful thing you can do is hand over a fact instead of a feeling. That is the whole chapter, and it is the difference between being taken seriously and being told to reboot and call back. The help desk hears “it’s so slow” a hundred times a day, and they have a script for it. They do not have a script for a person who arrives with three measured readings copied straight off their phone. That person stops the script cold. By the end of this chapter you will be that person, and you will close this book holding everything you need to fix what you can and credibly hand off what you can’t.

I want to tell you a short story about an airplane, because it explains why a few plain facts beat all the frustration in the world.

In the nineteen-thirties, a company built a new bomber, bigger and more complicated than anything before it. On its first flight it took off, climbed, stalled, and crashed, and it killed the crew. A reporter wrote that it was “too much plane for one man to fly.” The company could

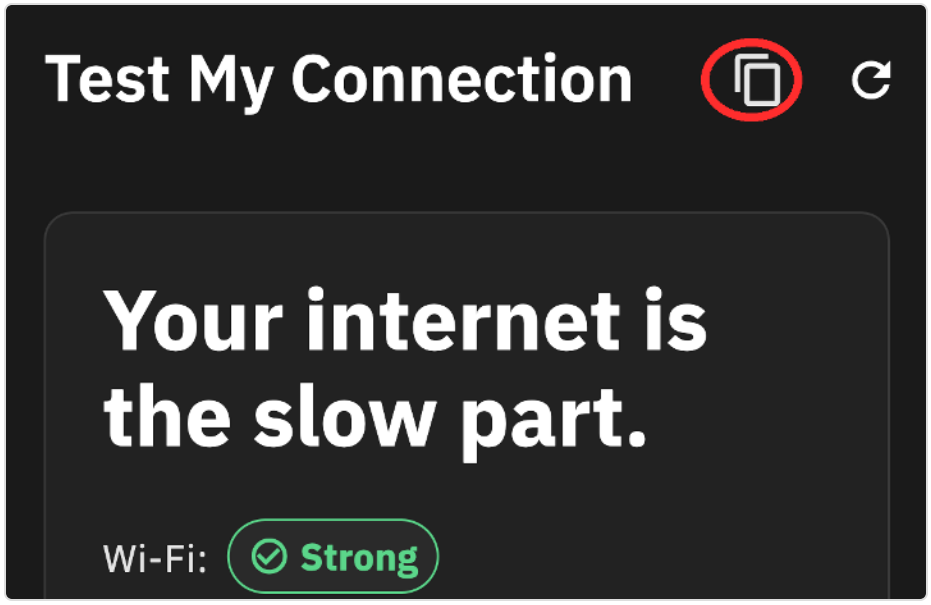
have given up, or sent every pilot back to school for years. Instead they did something almost insultingly simple. They wrote a checklist. A short list of the things to verify, in order, before takeoff. The plane was the same plane. The pilots were the same pilots. But with a checklist in hand, that aircraft went on to fly hundreds of thousands of hours without that failure repeating. Surgeons later borrowed the same idea and watched their complication rates drop. A checklist takes something complicated and frightening and turns it into a few facts, checked in order, that anyone can hand to anyone.

That is exactly what your device has been building for you, chapter by chapter. A short list of facts. The Wi-Fi grade. The internet grade. The thing that was actually slow. You do not have to understand the radio any more than a pilot has to rebuild the engine. You just have to hand over the facts, in order, to the person who can act on them. So let's learn how to hand them over.

Copy the fact, don't describe it

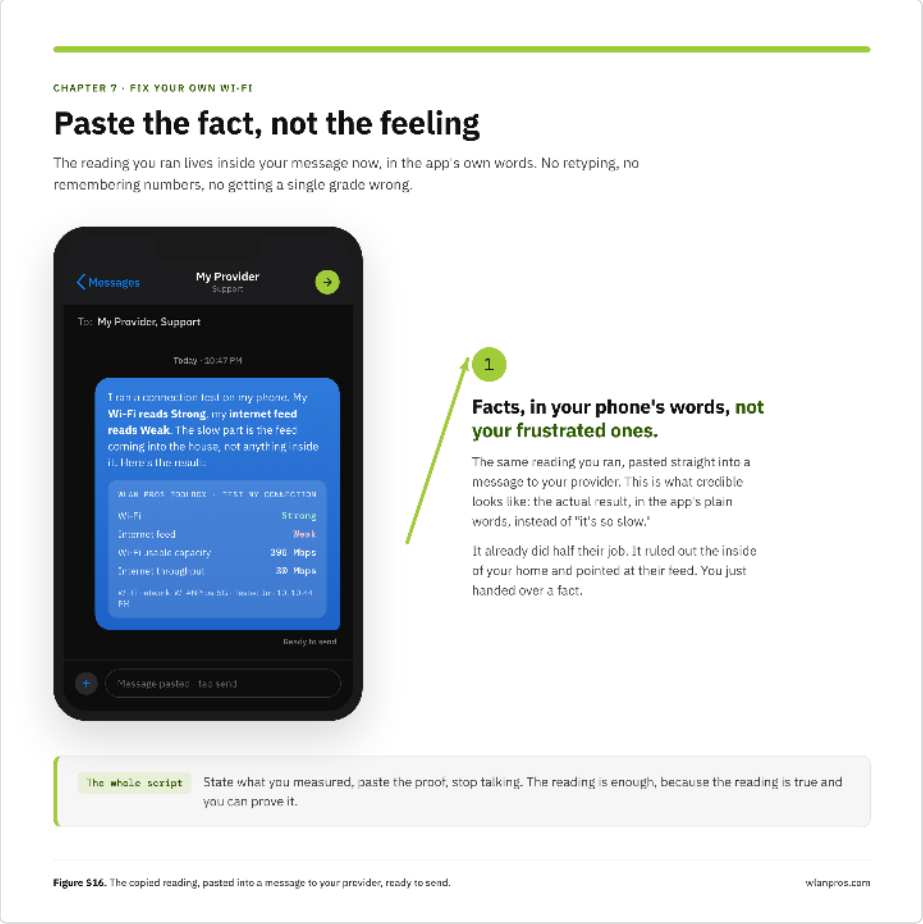
Here is the move that changes every one of these conversations. On every result screen in the WLAN Pros Toolbox, there is a way to copy what you are looking at. Test My Connection, Network Quality, Wi-Fi Information: each one lets you copy the result you just ran, word for word, exactly as the app stated it.

Run whichever test fits the problem. Then copy the result.



> The copy action, sitting on a result screen. One tap takes the whole reading, exactly as the app wrote it, and puts it on your clipboard. No retyping, no remembering numbers, no getting it slightly wrong. The fact, captured.

Now open your messages, or your email, or whatever you use to reach the provider or the installer, and paste it in. That is it. The reading you ran lives inside your message now, in the app's own words, and you did not have to translate anything or remember a single grade.

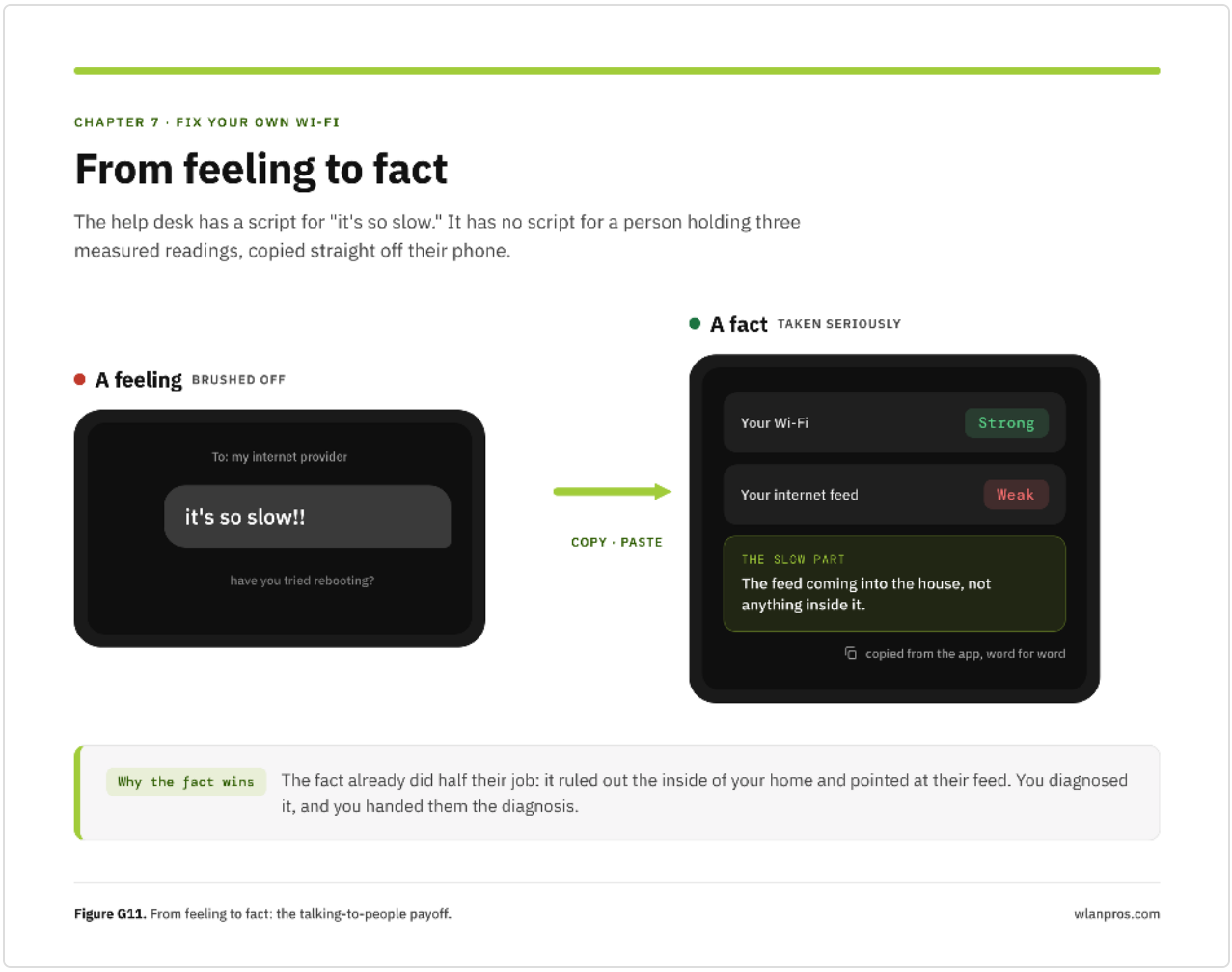


> The same reading, now pasted into a message to your provider. This is what credible looks like: the actual result, in the app's plain words, ready to send, instead of "it's so slow." You just handed over a fact.

Why the fact wins

Picture the two messages side by side. One says “my internet is so slow, please fix it!!” The other says “I ran a check. My Wi-Fi reads Strong. My internet feed reads Weak. The slow part is the feed coming into the house, not anything inside it.” Imagine you work the help desk. Which message do you take seriously? Which one can you actually act on?

The first message is a feeling. The person on the other end cannot do anything with a feeling except run their script, and the script starts with “have you tried rebooting.” The second message is a fact, and it is a fact that has already done half their job for them. It ruled out the inside of your home. It pointed at their feed. It told them where to look. You diagnosed it, and you handed them the diagnosis.



> From feeling to fact. The left is what the help desk hears all day and has a script to brush off. The right is what stops the script: three readings, copied straight off your device, in the app’s own words. Same problem, completely different conversation.

That is the payoff of every reading you learned to run in this book. Not so you could become an engineer. So you could walk into the conversation already holding the facts, and be impossible to wave away.

What to actually say

Keep it short. The fact does the work, so you do not have to. Here is the shape of it, for any of the handoff doors from the last chapter.

For the provider, when the internet feed read Weak: “I ran a connection test. My Wi-Fi reads Strong, my internet feed reads Weak. The problem is the feed coming into the house. I’ve pasted the result below.” Then paste it.

For the installer or office IT, when your home fixes have run out: “Here’s what I’m seeing.” Then paste the reading. Let them take it from there. You are not telling them how to do their job. You are handing them a clean starting point so they do not waste an hour rediscovering what your device already knows.

And if they say a word you don’t know, you already have the Glossary from the last chapter. Look it up, right there, and stay in the conversation as an equal.

The whole script is: state what you measured, paste the proof, stop talking. You do not need to argue. You do not need to know more than you know. The reading is enough, because the reading is true, and you can prove it.

Do this now

One run, one copy, one paste. This is the habit that makes you credible the next time something breaks.

1. **Run Test My Connection and copy the result.** It does not matter what it says today. The point is to find the copy action with your own thumb and feel how easy it is.
2. **Paste it into a message to yourself.** Open a note or a text to your own number and paste the reading in. Read it back. That is exactly what a provider or installer would see, and notice how much more solid it looks than anything you would have typed in frustration.
3. **Save that habit for the real day.** The next time something genuinely breaks and it lands on the wrong side of the do-it-yourself line, you will not reach for angry words.

You will reach for the copy action, paste the fact, and send it. You will be the most credible caller the help desk gets all week.

Do it once now, while nothing is broken, so the move is already in your hands when something is.

> **Myth-Bust: "There's nothing I can say that they'll listen to."**
>
> Yes there is, and you are now holding it. The reason people feel unheard on these calls is that they arrive with a feeling, and a feeling is the one thing a help desk is trained to deflect. They have heard "it's so slow" all day, and they have a script for it. What they do not have a script for is a person who pastes in three measured readings and says "my Wi-Fi is Strong, my feed is Weak, here's the result." That person is not guessing, and the help desk knows it. You went from the least credible kind of caller to the most credible, and all it took was one tap to copy and one to paste. The facts were on your device the whole time. Now you know how to hand them over.

The end of the book, and the one page to keep

Here is where we are. You started this book able to say four words, "my Wi-Fi is broken," and not much else. Look at what you can do now.

You can tell, in one tap, whether the trouble is your Wi-Fi, your internet, or one app having a bad day. You can read the handful of plain facts your own device keeps about its connection. You can tell apart the different kinds of slow, so you chase the right fix instead of the loudest one. You can take the four or five fixes that solve most of what goes wrong at home, and watch the grade move to prove the fix worked. You know the exact moment a problem stops being yours, and you know who to hand it to. And now you know how to hand it to them so you are taken seriously the first time.

That is not a small thing. That puts you ahead of nearly everyone who has ever stood in a back bedroom, holding a phone in the air, blaming the wrong road.

I have spent over twenty-five years learning that most Wi-Fi problems are not Wi-Fi problems. You learned it in an afternoon, with a free app and your own two thumbs. The radio will keep doing its quiet work whether you understand it or not. What you have now is the ability to look, instead of guess, and that is the whole game.

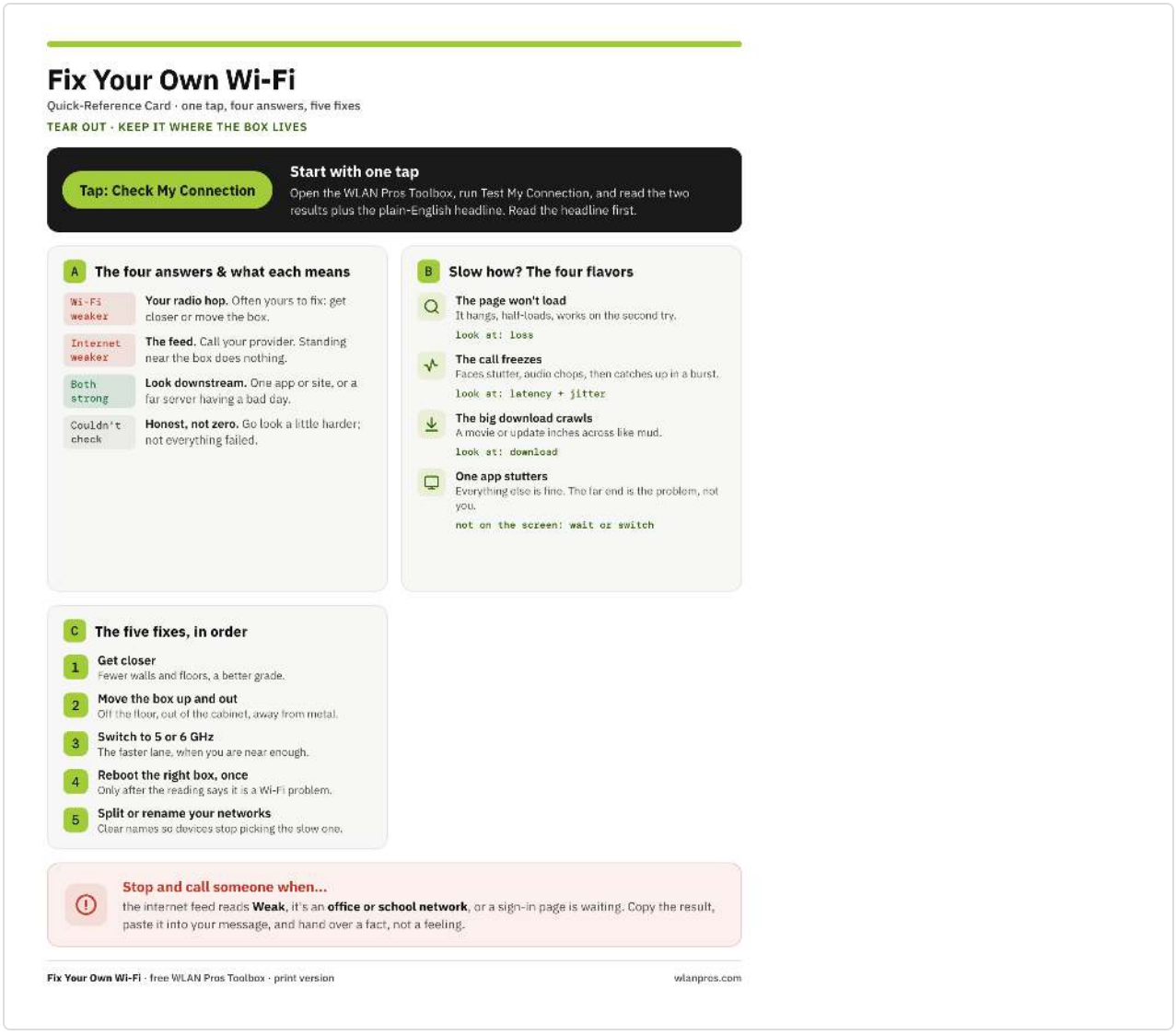
There is one page left that matters, and it is the one to keep. Tear out the Quick-Reference Card, or save it to your device, and put it where the box lives. It holds the one-tap check, the four answers and what each means, the kinds of slow, the home fixes in order, and the one

line that tells you to stop and call someone. It is the entire book on a single page, sitting right where you will need it. Everything deeper lives in the app, ready whenever you tap it.

The next time someone in your home says “the Wi-Fi is broken,” you will not reach for the box. You will reach for your device, run the check, read the answer, and know exactly what to do. Welcome to the short list of people who actually do.

Quick-Reference Card

Keep this one page by the box on the wall.



Fix Your Own Wi-Fi

Quick-Reference Card · one tap, four answers, five fixes

TEAR OUT · KEEP IT WHERE THE BOX LIVES

Tap: Check My Connection

Start with one tap

Open the WLAN Pros Toolbox, run Test My Connection, and read the two results plus the plain-English headline. Read the headline first.

A The four answers & what each means

`Wi-Fi weaker`	**Your radio hop.** Often yours to fix: get closer or move the box.
`Internet weaker`	**The feed.** Call your provider. Standing near the box does nothing.
`Both strong`	**Look downstream.** One app or site, or a far server having a bad day.
`Couldn't check`	**Honest, not zero.** Go look a little harder; not everything failed.

B Slow how? The four flavors

The page won't load
It hangs, half-loads, works on the second try.
`look at: loss`

The call freezes
Faces stutter, audio chops, then catches up in a burst.
`look at: latency + jitter`

The big download crawls
A movie or update inches across like mud.
`look at: download`

One app stutters
Everything else is fine. The far end is the problem, not you.
`not on the screen: wait or switch`

C The five fixes, in order

1. **Get closer**
   Fewer walls and floors, a better grade.
2. **Move the box up and out**
   Off the floor, out of the cabinet, away from metal.
3. **Switch to 5 or 6 GHz**
   The faster lane, when you are near enough.
4. **Reboot the right box, once**
   Only after the reading says it is a Wi-Fi problem.
5. **Split or rename your networks**
   Clear names so devices stop picking the slow one.

Stop and call someone when...

the internet feed reads **Weak**, it's an **office or school network**, or a sign-in page is waiting. Copy the result, paste it into your message, and hand over a fact, not a feeling.

About the Author

Keith Parsons is CWNE #3, one of the first in the world to earn the Certified Wireless Network Expert credential, and the founder and host of the Wireless LAN Professionals Conference (#WLPC). For twenty-five years he has worked in nothing but wireless, designing Wi-Fi in 117 countries and across nearly every industry on earth, from a diamond mine 800 meters underground to the top of the Empire State Building. Along the way he has taught over ten thousand people how to design and troubleshoot Wi-Fi.

The WLAN Pros Toolbox, the free app used throughout this book, is his answer to the same question he has heard for a quarter century: “My Wi-Fi is broken.” Now you can answer it yourself, in one tap.