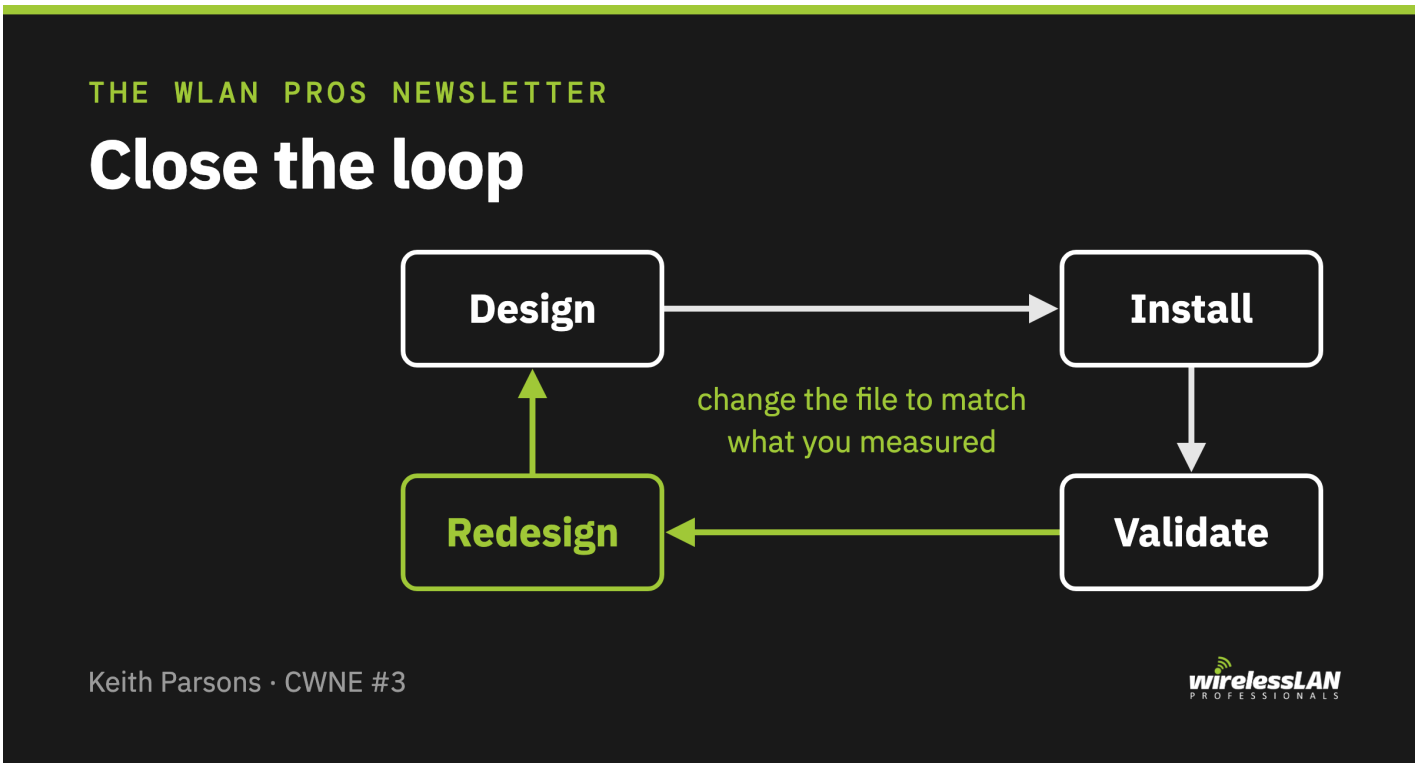
NEWSLETTER

Close the Loop

By **Keith Parsons, CWNE #3** · 2026-10-14



A while ago I made a post about why validation surveys belong in every single quote for Wi-Fi gear. I said it should be just like cable. If you hire a cable contractor to bring Cat6 to every cube in your building, you don't pay the cable contractor until after they validate every single drop. That's part of the service of installing it.

And I showed how Wi-Fi is just the same. Before you turn it over to your customer, you need a validation survey to prove that exactly what you wanted and required came out. There are some reasons people didn't include them, mostly because salespeople wanted to sell that service. And I think it should just be included in your design and install, because it's what professional people do.

This week, however, I'm going to talk about a loop. A feedback loop, specifically. I've been using this feedback loop in my own career for the past 20, 25 years, and it lets you get better

and better over time.

Here's the loop.

First, you start with a design. You probably already do that. You design with the requirements in mind, all of the details, the floor plans, the wall attenuations, and you try to design it to meet the requirements as well as possible.

Then it gets installed.

And then, hopefully, you did a validation. That part a lot of people do.

Now here's the feedback loop you should add. The last step is to take the data that came from the validation survey back in, and redesign the network to match what the validation survey showed.

You might have shown in the design there's an AP here, on this channel, at this transmit power. Then when the validation survey came back, it was somewhere else. It might have had a different antenna, or the antenna was pointing a different way, or the transmit power or the channel was different.

Whatever it was, the difference between your initial design and the post-install validation survey means something changed between when you designed it and when it was installed and delivered to your customer.

Knowing what those changes are is important, because it could have been something the installer did. That's important to know so that when you turn over the network, it's working the way you designed it.

But a lot of times, it was a mistake on your part. You put in the wrong wall attenuation, the wrong transmit power, the wrong antenna for a device.

So what I recommend is that after the validation survey, you go back to the same design you did. Obviously, make a copy of it. Then make edits to the design until it matches the validation survey perfectly. Every one of those changes is a chance for you to learn how to make it better.

Now, the reason I bring this up.

Long, long time ago, when I first got married, my wife and I started to have a shared bank account. One year it was my turn to babysit the bank account, and one year it was hers. And I learned that my wife wasn't very good at balancing the checkbook. And I thought I was really good at balancing the checkbook.

I was so good that whenever I saw a mistake in the bank statement, I thought it was the bank's fault. Of course, I took all my information, went down to the bank and said, look, here's where you were wrong. And 100% of the time, it was my fault. I missed something. I didn't carry the two. I made a math error. I was missing a line. There was a check my wife wrote that she never told me about. It was always my fault.

The same holds true in these validation surveys. When you did the design, it used math. And the math is just free space loss and wall attenuation math. It's just math. If the validation survey didn't match your design, it's not the math's fault.

I've had people come to me and say, see, the software made a mistake. And I'm like, the software didn't make a mistake. If you see an Excel spreadsheet and the number wasn't what you wanted, do you say, oh, Excel did the math wrong? No. You know you put something in the formula wrong, or there was a decimal place missing in the data you entered.

The same is true for Ekahau or Hamina or Sidos. They just use math, and the math is never wrong, just like the bank was never wrong.

A while ago, I told you that an access point covered maybe 20 meters out, and that was what the design showed. Same make, same model, and a different access point went out to 30 meters instead. Okay, I know that in reality, that's not the case. There had to be something different. It could have been that they didn't mount it in the same place I thought it was going to be. Sometimes the antenna pattern on one AP doesn't match another AP of the same brand and the same model. Who knows? Someone dropped it during install. It was a flaw in manufacturing. But that's why we do validation surveys: to prove those things.

So if your validation survey, fed back into your design, finds that kind of thing, it's a perfect chance to find out what was wrong with that individual AP.

You can do this process today with all of the major vendors. Make a copy of your design, go through it, edit it, make it match. There's nothing in here that's very difficult.

The difficult part? I've never once been paid by a customer to go back and redesign the network to find out what I did wrong. That's not something customers pay for. This is on you.

No different than it's on you to go study and learn and get your CWNA. It's a way to improve your own skills.

The loop, just as a repeat. Take the predictive design you did, open it, and match it to the validation survey. Correct one thing at a time. Look at it. It could be that you had the wrong wall attenuation. It could be that something moved. Anything that didn't show up the same, write it down and figure out why. What was it?

Now, if you really want to be generous, hand the customer the corrected file, so they have on record what the original design should have been, with all the fixes you made.

By Keith Parsons, CWNE #3, Wireless LAN Professionals. Free to read and share. Facts