



ToteI CSI

P.O. Box 300

Ochelata, OK 74051-0300

918-535-2208

888-580-2208

Best Practices for Troubleshooting Your WiFi

Getting Started

EMI or Electromagnetic Interference

Interference Outside the Home

Large satellite dishes, radio towers, and neighbors' wireless networks are among the sources of WiFi interference that can originate from outside the home. While there's not much that can be done about these, changing frequencies to 5 GHz in order to separate from your neighbors' 2.4 GHz networks can sometimes clear things up.

The Router is Next to an Electronic Device

You likely have a number of electronic devices and appliances at home. Many of these devices can cause interference for WiFi signals. Everything from TVs to microwaves to refrigerators can cause the signal strength to be compromised or obstructed. The problem increases when the router is placed next to the television, microwave, blue tooth speakers or any other electronic device. Sometimes improving the signal is as simple as moving the WiFi router a safe distance away from these devices.

Location, Location, Location

Interference from electronic devices is not the only problem that can cause poor WiFi performance. It's important to know the most favorable positioning for WiFi routers. Incorrect device placement will cause interference that hampers and sometimes blocks the WiFi signal entirely. When troubleshooting, watch out for some of these common placement mistakes:

The Router is on the floor

WiFi signals are known to move sideways as well as downwards. So, when a router is placed on the floor you are blocking the way through which the WiFi signal travels throughout the house. If you want to get the best signals from the WiFi router, it should be placed at least five to seven feet above the ground level.

The Router is hiding

When the router is hidden in a closet, a cabinet, behind a bookshelf, or even hidden behind plants, the performance diminishes significantly. This is because a number of household materials are known to block WiFi signals. Walls with plumbing can cause significant interference, and walls with electrical wiring inside can cause some degree of interference. Even humans are known to cause interference in spreading WiFi signals. So, if the router is hidden, behind concrete or steel walls or other hidden construction materials it could be causing the disturbances to the WiFi signals or hampering its strength. Even broadleaf houseplants can interfere with the signal if the router is behind them. Instead, the router should be placed in more open areas.

The Router is next to a window

We all love to sit by a window while working or just surfing the internet. It's a nice way to be connected. But is the router there too? When the router is right beside a window, almost half of the WiFi signals are going out of the

house. Works well if you are sitting outside next to the window to work, but not so much for your in home use. Half the signal is going unused and out the window leaving just the remaining half. There's obviously going to be poor performance in terms of WiFi connectivity. Your neighbors may even be using the half that is going out the window, eating up some of your bandwidth. Moving the router away from the window can improve the WiFi performance.

The Router is in a far corner of the house

A WiFi signal is distance sensitive and needs to spread throughout the house. The router should be centrally located. If it is not, this could be the reason for poor connections or no connections in portions of the house. WiFi signals spread around on all sides. A wall on one or two sides of the router can cause obstruction and the signal is not spreading out. Placing the router at a central location ensures a strong WiFi signal throughout the house.

It's critical that you be able to determine if interference, whether electromagnetic or router placement, is the cause of slow internet. If you can analyze the source of that interference, you can determine the best course of action. You could save some money on service calls if you can address the problem yourself.

[We want all our subscribers to enjoy the best possible online experience. These tips are provided to help with that. They are not all inclusive, but they are some of the most common issues.](#)

As always, please call us if you have questions or issues 918-535-2208.