

How strong is your Wireless?

Wireless internet performance is measured in both 'throughput', the speed at which data can be sent, and 'coverage', the strength of signal throughout our customer's property. Both of these play a large role in the customer internet experience.

Throughput is key. How fast can it go? There are many 3<sup>rd</sup> generation wireless routers called 'G' standard which remain in service today and have a real-world limit just over 10 Megabit. Those technologies have been around for nearly two decades and have served well. In 2010 the 4<sup>th</sup> generation technology called 'N' standard was launched and that upped the capability to 25 Megabit with high-end devices ranging as high as 50 Megabit. Today we provide 5<sup>th</sup> generation devices to serve our customers, the 'AC' standard. These can provide access to 100 Megabit services and with premium devices as high as 200 Megabit.

The fourth and fifth generation systems now have multiple antennas to share the load and provide connections to many devices such as tablets, phones, computers, Smart TV's and more. They do this by mixing a bit of old and a bit of new technology. They use two separate systems on separate frequencies to allow many things to coexist. Heavy usage such as computers, video game consoles and smart TV's should connect to the '5G' service which, while shorter range allows the best speeds. For connecting at a greater range like that 'far corner of the house' or for devices that move frequently, the '2.4G' service has a limit between 10 and 25 megabit but reaches much further. Most of your web browsing, social media and light streaming of video can work just fine on 2.4G and enjoy the enhanced range throughout your home or business.

Wireless technologies 'share' the airwaves in a customer's premise. As more devices connect the available speeds may be divided up. This often indicates limitations of the wireless router itself. The higher-end 5<sup>th</sup> Generation wireless routers have added additional electronics to host larger numbers of connected devices. Not all routers are created equal! Likewise the device that you're connecting such as a tablet, phone or computer may have limitations on their wireless abilities as well. **It's worth noting that all wireless routers have physical Ethernet ports on them to directly connect computers or other internet-enabled devices. This is the only connection that can provide the full bandwidth available to the customer.**

Is your internet running slow? More often than not, it's related to the router. Many cases relate to choosing the wrong wireless radio '2.4G' or '5G'. As we all adopt more connected devices in our lives, sometimes we're simply overloading what the existing wireless router can provide. If you're noticing slower speeds or intermittent access on wireless devices, let TBC be our source for troubleshooting; we're happy to help you troubleshoot. While we do sell 5<sup>th</sup> generation wireless routers, we're willing to aid you with a wireless router that you may have purchased elsewhere.

Contact TBC at 515-928-2110 for more information or assistance with troubleshooting your internet connection.