## **Understanding Wi-Fi**

## What is Wi-Fi?

• Wi-Fi gives you the ability to connect devices to the internet without any wires!

Why do I have two Wi-Fi networks?

• HolstonConnect provides a dual-band wireless router to our Whole Home Wi-Fi subscribers. A dual-band router allows the user to connect to Wi-Fi with two different frequencies. The two wireless bands that you can connect to are 2.4GHz and 5GHz.

Which Wi-Fi network should I connect to?

• Well both wireless bands have their pros and cons.

Which one is better?	5GHz is better for applications requiring a higher amount of data and reliability.
Which one is more reliable?	Ex: Uploading/Downloading files, gaming, streaming video. 5GHz is typically more reliable. Wireless devices such as wireless keyboards and mice use the 2.4GHz band to communicate with Bluetooth.
Which one has better signal?	The further you get away from your router the weaker your Wi-Fi signal gets. Generally, 2.4GHz signals travel farther than 5GHz signals.
Which one is faster?	Wi-Fi speeds are very hard to predict. Allot of factors play into Wi-Fi speeds. Some of those factors include what device is being used and its wireless signal. Normal Wi-Fi speeds on 2.4GHz can be between 5Mbps and 110Mbps. Wi-Fi speeds on 5GHz can range up to 600Mbps depending on the device and wireless signal.
Which one should I use?	For stationary devices HolstonConnect recommends using the 5GHz band as long as the wireless signal is good. For mobile devices such as phones, tablets, even laptops we recommend the 2.4GHz band as you are less likely to lose connection when moving through the home.
I am buffering, should I change bands?	First let's run a speedtest. Go to speedtest.net and select HolstonConnect as your server then press GO. If your download speed is over 30Mbps the buffering may be caused from the device that is streaming. Try resetting the streaming device. If you are still buffering, then the issue may be on the streaming service end. If your speedtest shows under 30Mbps then try connecting to the 5GHz band. Streaming HD video only requires a 25Mbps connection for seamless streaming.
My video game is lagging, should I change bands?	Lagging typically develops from slow PING times. Go to speedtest.net and select HolstonConnect as your server then press GO. If your PING is under 50ms then the issue may be with the device or the servers, its connecting to. Most gaming platforms only need up to 10Mbps speeds for seamless gameplay.

