

# Troubleshooting Mobile devices

## Summary:

Troubleshooting Communication with Mobile devices

## Solution:

Wi-Fi signals usually reach about 150 feet or over 45 meters for a 2.4Ghz frequency. Using a 5Ghz frequency, you will get about 50 feet or about 15 meters of reach.

Consumer Bluetooth connection is approximately 30 feet (10 meters)

Wi-Fi and Bluetooth devices especially payment devices are very sensitive to Wi-Fi signal latency. High latency and packet loss will cause connection issues and possibly cause the device to time out or disconnect.

Note that distance and interference are the leading problems with wireless and Wi-Fi. It is recommended to stay away from potential sources of wireless interference and as close as possible to the signal source. Other devices such as Bluetooth devices, cordless phones, microwaves, and similar devices can also cause interference. Many outside factors cause common issues for wireless networks is interference. Some interference is electromagnetic. Appliances with a large electrical draw can keep your data from arriving at its destination. Microwaves, server towers, and even the electrical draw of televisions in 'standby' can create a slow or unreliable connection. Other environmental issues, like concrete or metal barriers can create interference as well.

Congestion is another common issue for wireless networks, but it's a bit more difficult to describe. Wireless networks require a dedicated slice of radio frequency to send information without interfering with other wireless communication. The catch is, there are a finite number of frequency flight paths available for use by 802.11 networks. Whenever two nearby routers attempt to use the same frequency, one is forced to wait its turn. As the number of competing networks increases, the longer each device will need to wait for its chance to use a frequency. This waiting makes for slower speeds.

Please address communication issues with the IT support for the Merchants.

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