ANDROID WIRELESS COMMUNICATION

What is the Difference Between WiFi and Bluetooth?

Wi-Fi and Bluetooth are both wireless standards and use radio frequency waves to transmit data. Most Wi-Fi devices today use the 802.11n standard, while the current Bluetooth standard is 4.0.

Wi-Fi is commonly thought of as a method to wirelessly connect devices to a Local Area Network (LAN), to access the internet, or an office intranet, or other devices such as a printer. It has a range of about 300 feet.

Bluetooth is generally used to connect devices to each other to form a Personal Area Network (PAN), such as an Android phone or tablet to a wireless keyboard. It has a range of about 30 feet.

Bluetooth devices do not need any installation or configuration. You simply select and “pair” the Bluetooth enabled device with your phone or tablet, and begin. Wi-Fi requires configuration as well as modems and routers.

WHAT IS NEAR FIELD COMMUNICATION

Near field communication (NFC) is a short range communication technology, like bluetooth, developed for smartphones and similar devices. Unlike Bluetooth, no pairing code is needed, and it consumes very little power. It establishes a low-speed connection between devices by simply touching them together, and can be used to bootstrap faster wireless connections, such as bluetooth and WiFi direct. The maximum working distance for NFC is up to 20 cm, but more commonly only a few centimeters.

Uses for Near Field Communication:

1. Transfer files and internet links
2. Replace credit cards for payment (Google wallet, Iris)
3. Public transit passes, and other tickets
4. Loyalty cards
5. Initiate two-player games
6. Link a headset to your phone or device
7. Print a document by touching your device to a printer
8. Information “tags” such as at museums, real estate signs, or cemeteries

WHAT IS USB ON-THE-GO (OTG) TECHNOLOGY

USB On-The-Go, is an extension of the USB 2.0 specification for connecting peripheral devices to each other. USB OTG devices can communicate with each other without the need to be connected to a PC. For example, you can connect a keyboard, mouse, or a flash drive directly to a tablet; or a mobile phone can connect to a printer, as long as all the devices are USB OTG-compatible. USB OTG grew from the increasing need for portable devices to be able to communicate with each other as the culture of technology moves away from a PC-centric world.

However, not all smartphones and tablets are OTG compatible. If you're not sure whether your device has the capability of acting as an OTG host, you can easily figure it out by downloading a free app from the Play Store called USB Host Diagnostics, or the app OTG Checker.

Just having a device that is OTG compatible isn't enough though as you'll also need a suitable OTG cable for your device. You can easily grab one for a few bucks at online stores such as EBay, Amazon, or Meritline. Furthermore, to connect storage devices such as a USB flash drive or a hard drive, you may also need an app like USB Host Controller, Total Commander, or Nexus Media Importer.

QUESTIONS AND ANSWERS