



Near-field communication (NFC)

– used in contactless payments and for sharing content between mobile devices in very close proximity.

- Range: 10cm
- Data Rates: 100–420kbps



LoRaWAN

– wireless communications using Low Power Wide Area Network technology.

- Range: 2-5km (urban environment), 15km (suburban environment)
- Data Rates: 0.3-50 kbps



Wi-Fi

– widely used technology for local area networking where devices communicate through a shared access point.

- Range: Approximately 50m
- Data Rates: 600 Mbps maximum



Wi-Fi Direct

– variant of the Wi-Fi standard for point-to-point communication, eliminating the need for an access point. Similar range and data rates to standard Wi-Fi.



Z-Wave

– Communication protocol providing short-range, low-latency data transfer at rates and power consumption lower than Wi-Fi. Used primarily for home automation.

- Range: 30m
- Data Rates: 9.6/40/100kbit/s



ZigBee

– communication protocols for personal area networking based on the IEEE 802.15.4 standard, providing low power consumption, low data rate, low cost, and high throughput.



4G mobile

– the fastest mobile device network carrying voice and data.

- Range: 35km max for GSM; 200km max for HSPA
- Data Rates (typical download): 35-170kps (GPRS), 120-384kbps (EDGE), 384Kbps-2Mbps (UMTS), 600kbps-10Mbps (HSPA), 3-10Mbps (LTE)

