

# **Conectividad**

## **Inalámbrica**

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# WiFi

## Conexión a red









Surfing the web,  
chatting online  
or checking emails.



Video streaming,  
online gaming or  
large file transfers.

2.4Ghz OR 5Ghz

		Antennas (Tx*Rx)	Spatial Streams	Maximum Link Speed	Band Support
 CERTIFIED®	Single Stream	1 x 1	1	72 Mbps	2.4
	Dual Stream	1 x 2	2	150 Mbps	2.4
 CERTIFIED® dual stream n	Dual Stream	2 x 2	2	150 Mbps	2.4
	Dual Stream	2 x 3	2	150 Mbps	2.4
 CERTIFIED® dual stream n	Dual Stream	2 x 2	2	300 Mbps	2.4 & 5
	Dual Stream	2 x 3	2	300 Mbps	2.4 & 5
 CERTIFIED® multi-stream n	Multi Stream	3 x 3	3	450 Mbps	2.4 & 5

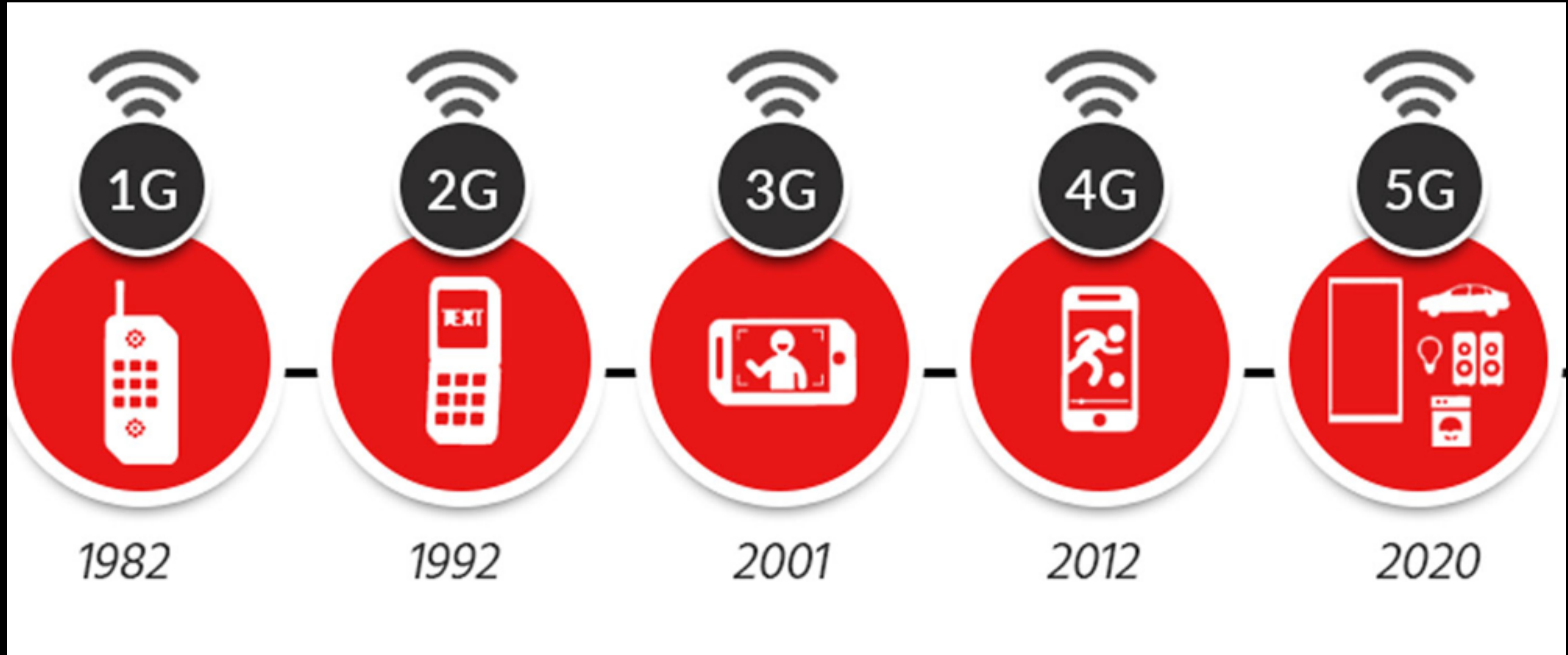


# Datos Celulares

## Conexión a red datos Celular







3.5G/DC-HSPA+

42.2 Mbps

4G/LTE

100 Mbps

4G/LTE Cat. 4

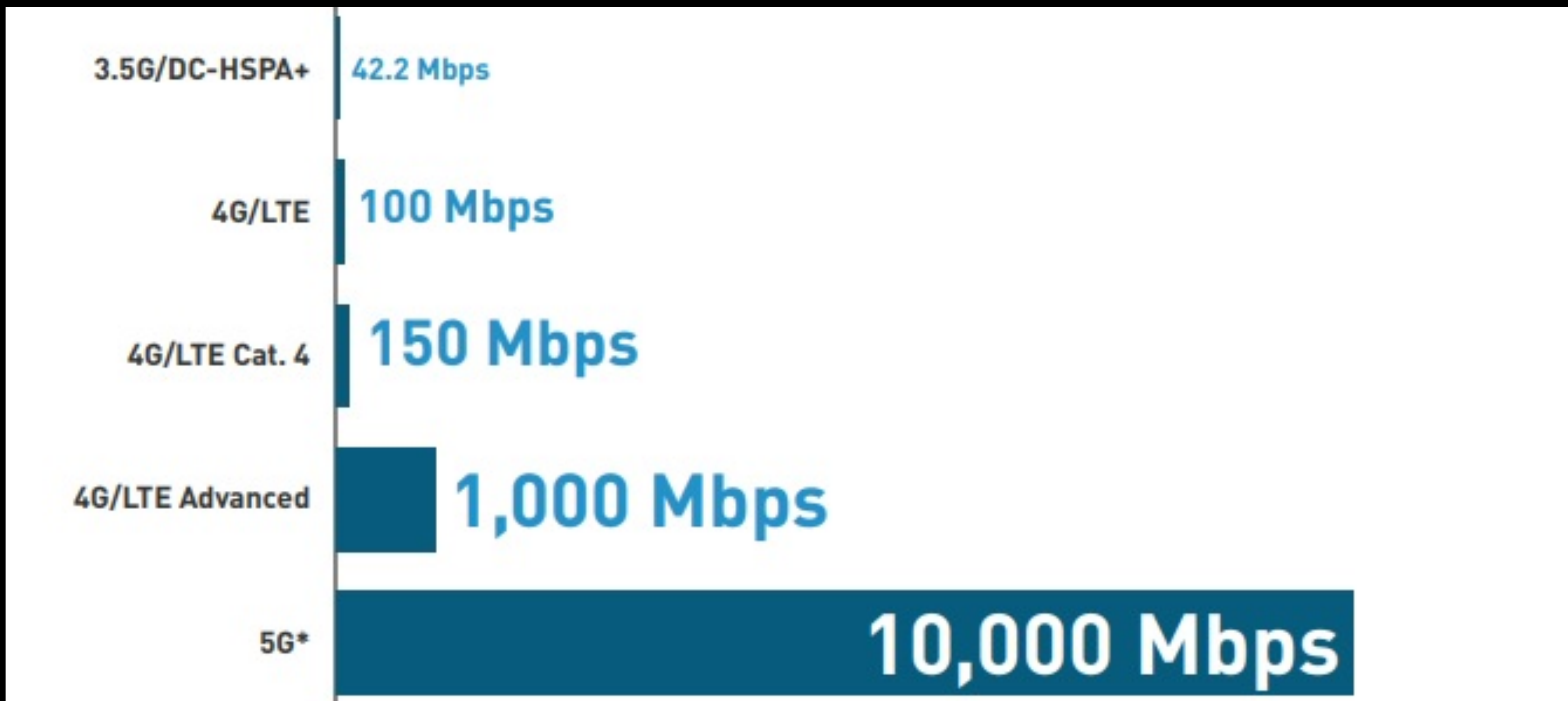
150 Mbps

4G/LTE Advanced

1,000 Mbps

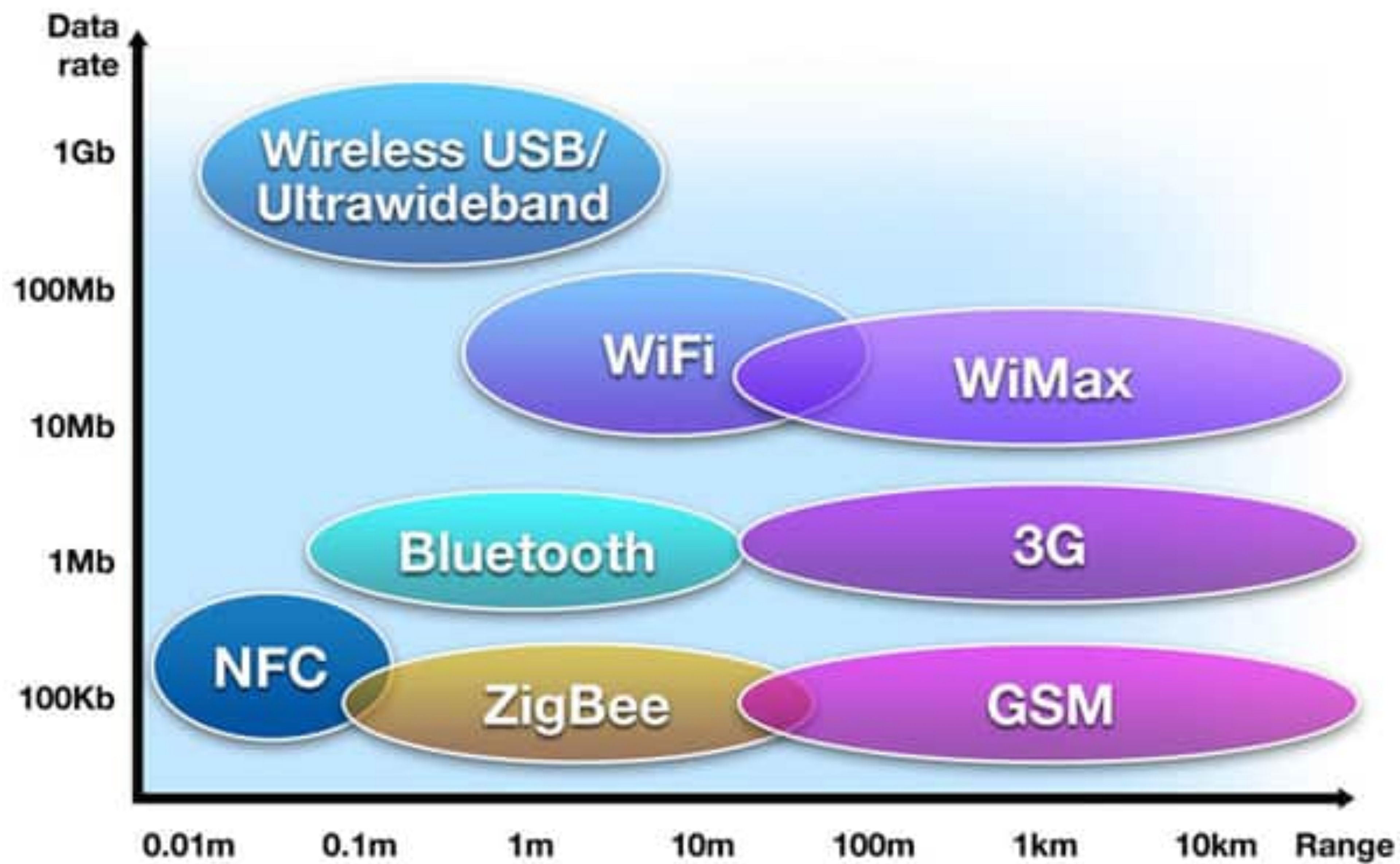
5G\*

10,000 Mbps









# NFC vs. Bluetooth



Wirelessly over  
radio waves



Faster sending speed  
using electrical currents



Shorter working distance  
up to 10 cm only



Wirelessly over  
radio waves



Slower sending speed  
using frequencies



Further working distance  
up to several metres









CASH

AUTO  
PASS

2

3

STOP

PASS

ONLY



# HOW BEACON TECHNOLOGY WORKS



Retailers strategically place beacons around their store.

The Beacons connect to a customer's Bluetooth enabled smartphone app.

It sends a signal to the phone and the app is opened.

The retailer can provide the customer with a wealth of information.

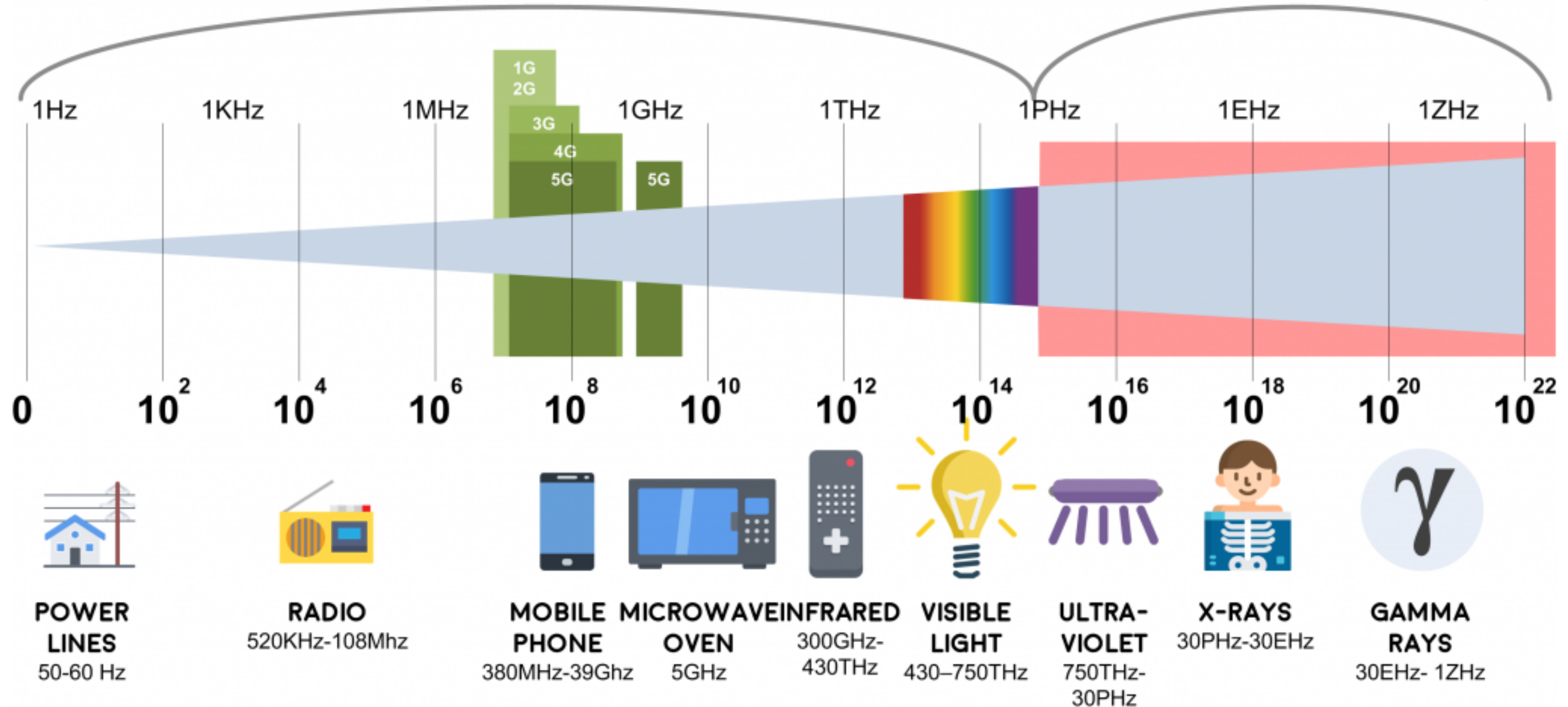


## NON-IONISING RADIATION

Note enough energy to knock electrons around. Not damaging to human tissue

## IONISING RADIATION

Enough energy to knock electrons out of their 'orbit'. Can cause cellular and/or DNA damage.



### MOBILE PHONE FREQUENCIES

1G – 380-1900 MHz  
2G – 380-1900 MHz  
3G – 700 MHz-3500 MHz  
4G – 400-5900 MHz  
5G – 400-4700 MHz, 26-39 GHz



## OSI Model

Application Layer

Presentation Layer

Session Layer

Transport Layer

Network Layer

Data Link Layer

Physical Layer

## TCP/IP Model

Application Layer

Transport Layer

Internet Layer

Network Access Layer

## TCP/IP Protocol Suite

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M  
P

TCP

UDP

ARP

IP

IGMP

ICMP

Ethernet

Token  
Ring

ATM

Frame  
Relay

