

4G VERSUS 5G

5G will bring us faster connectivity than ever before – but just how much better is it than 4G, and how does it work?

40%

of the world will be covered by 5G by 2024*

US\$4.2bn

5G wireless network revenue in 2021*

US\$2.3bn

Global spending on 5G infrastructure in 2021*

20-100m

Number of 5G connections by 2021*

99.999%

Availability rate from 100% Coverage rate†

90%

Reduction in network energy usage†

Sources: *Leftronic and Statista, †Thales

NETWORK SLICING

5G makes it easier to split the network to tailor speed, capacity, coverage, encryption and security, by reassigning resources from one network 'slice' to another



50% of network
High-bandwidth

Typically used for smartphones and broadband

40% of network
High-reliability and low-latency

Typically used for connected cars

10% of network
Low-energy and low-bandwidth

Typically used for IoT devices in the home



4G AND 5G: THE (THEORETICAL) DIFFERENCES



Latency

4G: 200 milliseconds

5G: 1 millisecond



Data rate

100x improvement



Millimeter wave spectrums

4G supports 4,000 devices per km²

5G will support 1 million per km²



Speed

4G: 100 Mbps

5G: 10,000 Mbps

Downloading an average HD movie on **4G** takes 50 minutes – on **5G** it takes 9 minutes



IoT device performance

Battery life of low-power devices will increase by up to 10 years