DISCUSSION ON THE TOPIC

4G and 5G Technology

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MAIN TOPICS

POINTS TO TALK ABOUT

What 4g 5g network

Steps of 4g 5g how it works

Feature of 4g 5g

Difference between the two

WHAT IS 4G?

G is defined as the **fourth generation of mobile technology** which follows the 2G and 3G networks that came before it. 4G network architecture, while not as fast as 5G, offers significant speed improvements over legacy 3G networks. It is currently the most advanced technology that's been adopted by the majority of mobile network service providers.

When it initially came out, 4G quickly changed how we use mobile internet. While 3G networks were relatively fast, 4G network connections allowed users to browse the web and stream HD videos on mobile devices, which basically turned smartphones into the computers of the modern age.

HOW DOES 4G WORK?

Using high-speed upload and download packets, 4G provides customers with access to **broadband-style speeds** from their mobile devices, tablet, or laptop. It is basically a radio system, with masts broadcasting 4G signals across the country. Your 4G-enabled device communicates to the base station (mast) which then relays data from the internet to your device, and vice versa.

WHAT IS 5G?

Fifth-generation wireless (5G) is the latest iteration of cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks. With 5G, data transmitted over wireless broadband connections can travel at multigigabit speeds, with potential peak speeds as high as 20 gigabits per second (Gbps) by some estimates. These speeds exceed wireline network speeds and offer latency of 1 millisecond (ms) or lower, which is useful for applications that require real-time feedback. 5G will enable a sharp increase in the amount of data transmitted over wireless systems due to more available bandwidth and advanced antenna technology.

5G networks and services will be deployed in stages over the next several years to accommodate the increasing reliance on mobile and internet-enabled devices. Overall, 5G is expected to generate a variety of new applications, uses, and business cases as the technology is rolled out.

HOW DOES 5G WORK?

Wireless communications systems use radio frequencies (also known as a spectrum) to carry information through the air.

5G operates in the same way but uses higher radio frequencies that are less cluttered. This allows for it to carry more information at a much faster rate. These higher bands are called 'millimeter waves' (mmwaves). They were previously unused but have been opened up for licensing by regulators. They had been largely untouched by the public as the equipment to use them was largely inaccessible and expensive.

FEATURES OF 4G AND 5G

The features of 4G are :

Better download speed
Extremely high voice quality.
Easy access to the Internet, IM, social networks, streaming media, and video calling.
Higher bandwidth.
Much faster than 3G

The features of 5G are :

100 Times more devices
Faster response time
Virtually '0' Latency
Wide range of applications
Very high capacity
More software options to upgrade ubiquitous connectivity

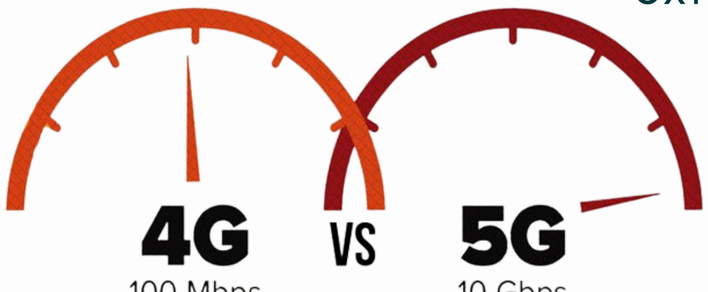
DIFFERENCE BETWEEN 4G AND 5G?

4G TECHNOLOGY

- The maximum upload rate of 4G technology is 500 Mbps
- The maximum download rate of 4G technology is 1 Gbps
- The latency of 4G technology is about 50 ms
- 4G offers CDMA
- 4G has the advantages of high-speed handoffs, global mobility

5G TECHNOLOGY

- While the maximum upload rate of 5G technology is 1.25 Gbps
- While the maximum download rate of 5G technology is 2.5 Gbps.
- While the latency of 5G technology is about 1 ms
- While 5G offers OFDM, BDMA
- While 5G has the advantages of extremely high speeds, low latency



THANK YOU