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## Popularity Of The 5G Technology

5G, also known as fifth generation, mobile computing promises a new revolution in the way international cellular data plans are offered. It also promises various improvements in different aspects of human life. However, this technology has not been standardized yet.

There is a chance that its standards will be defined in the next few years and it will come to effect in 2020. In future, people will expect a high quality of internet connectivity that their devices are capable of. 5G technology has all sorts of advance features that make it incredibly powerful. It enables its users to simultaneously connect to multiple wireless technologies and switch easily between them. It also has support for IPv6 and FlatIP.

As the usage of tablets continues to increase, the online media consumption patterns of users are changing rapidly. More and more people are carrying out their daily transactions online and using their mobile devices to read reviews and to compare prices. They also expect their mobile devices to have the same speed as their home computers.

The traffic going through wireless networks have been doubling annually and consumption will increase to about thirty times by 2020. The current 4G will be incapable of carrying this multifold increase in data consumption.

In reality, 5G technology does not exist yet but it is next stage in the evolution of data transmission. We have heard about LTE Advanced which gives a peak download speed of 1Gbps and upload speed of 512Mbps but you can't fully utilize its capacity with your mobile device.

At the current rate, it is expected that the 5G standard will be concluded within the next two years. It will not only be faster, it will also have a larger data carrying capacity.

With 5G, various problems such as frequency licensing and spectrum management issues will be solved. Also, the 5G terminals will likely have software defined radios, as well as different modulation schemes and error-control schemes. It will provide hundreds of channels without streaming.

5G data technology supports Cognitive and software defined radio that is used for spectrum management. It consists of a control layer on "top" of an agile software defined radio. It shares the same spectrum efficiently by finding unused spectra and adopting the transmission scheme to what is required. It also support Beam division multiple access.

In wireless systems, FDMA, TDMA, CDMA and OFDM multiple access technologies are used. With current multiple access techniques, time is divided amongst multiple users. Therefore, the capacity of a mobile communication system depends on time and frequency. Korean research and development has suggested the use of BDMA as a radio interface for 5G which is not depended on frequency/time.