5G Deployment

Currently speaking 5G technology may not be a myth anymore with major mobile carrier companies like AT&T, Verizon, T-Mobile and even Sprint have already made plans to begin providing 5G services to its users but there is still time for them to provide nationwide coverage so the deployments have only been done in certain cities. So, what will 5G provide to users other than very high speeds with 5G we will have much larger bandwidths which will mean that a lot more devices can be connected to the network without providing any delay even when there are in a lot of people in the same area. Latency is also another thing that we will benefit from with 5G reducing the latency we will have much quicker response time like when we click on a particular link that we want to play. But as 5G requires specific antennas to connect to its network only newer smartphones will be able to support this network

A screenshot of a cell phone

Description automatically generatedA close up of a map

Description automatically generated

Figure 1

Figure 2

5G will require new radio frequencies for their signals so this will mean modifying their cell tower and other equipment. From Figure 2 we can see the different bands 5G can use which will totally depend on the carrier each of them have their own benefits and drawbacks. Figure 1 shows the 5G infrastructure through it will provide us with high speed and bandwidth but the range is very limited so we will need to install a lot more base stations and antennas and also install repeaters in different parts to spread the signals more evenly.

Bibliography

1. A. Gohil, H. Modi and S. K. Patel, "5G technology of mobile communication: A survey," 2013 International Conference on Intelligent Systems and Signal Processing (ISSP), Gujarat, 2013, pp. 288-292, doi: 10.1109/ISSP.2013.6526920.
2. L. Pierucci, "The quality of experience perspective toward 5G technology," in *IEEE Wireless Communications*, vol. 22, no. 4, pp. 10-16, August 2015, doi: 10.1109/MWC.2015.7224722.
3. J. Best, “The race to 5G: Inside the fight for the future of mobile as we know it,” TechRepublic, 15-Dec-2014. [Online]. Available: https://www.techrepublic.com/article/does-the-world-really-need-5g/.
4. E. Ram, “How will the 5G network change the world?,” *BBC News*, 01-Dec-2014. [Online]. Available: https://www.bbc.com/news/technology-30224853.