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How Can 5G Make Our Lives Better?

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Abstract:

Our lives will be significantly improved with the advent of the new cellular wireless technology due to all its new features and applications. This Poster discusses the main features and application of 5G technology and its positive impact on society, in particular facilitating interactive and smart communities.

Introduction:

Can you imagine that one day you will enjoy home internet speed wirelessly without a fiber cable (Ericsson, n.d., what-is-5g?) and be able to connect to anything remotely?

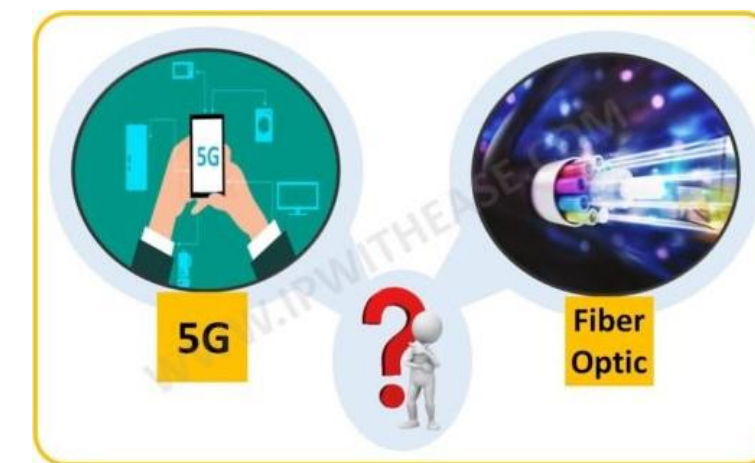


Figure 01, 5G Vs Fiber. [4]

Well, this is what 5G is capable of, 5G being the 5th generation of the Cellular network and advanced wireless communication meant to provide a new service for our communities by allowing high data rates, very low latency, massive capacity, and ubiquitous connectivity (Qualcomm, n.d., what-is-5g section?). Additionally, 5G is not only evolving for 4G, but also comprises new technologies and architectures that will pave the way to new innovative methods of connectivity and device-to-device communication, which in turn will render numerous applications feasible. Therefore, It is important for consumers to understand the main features and applications of 5G in order to envision how it will affect their lives.

Main Features of 5G:

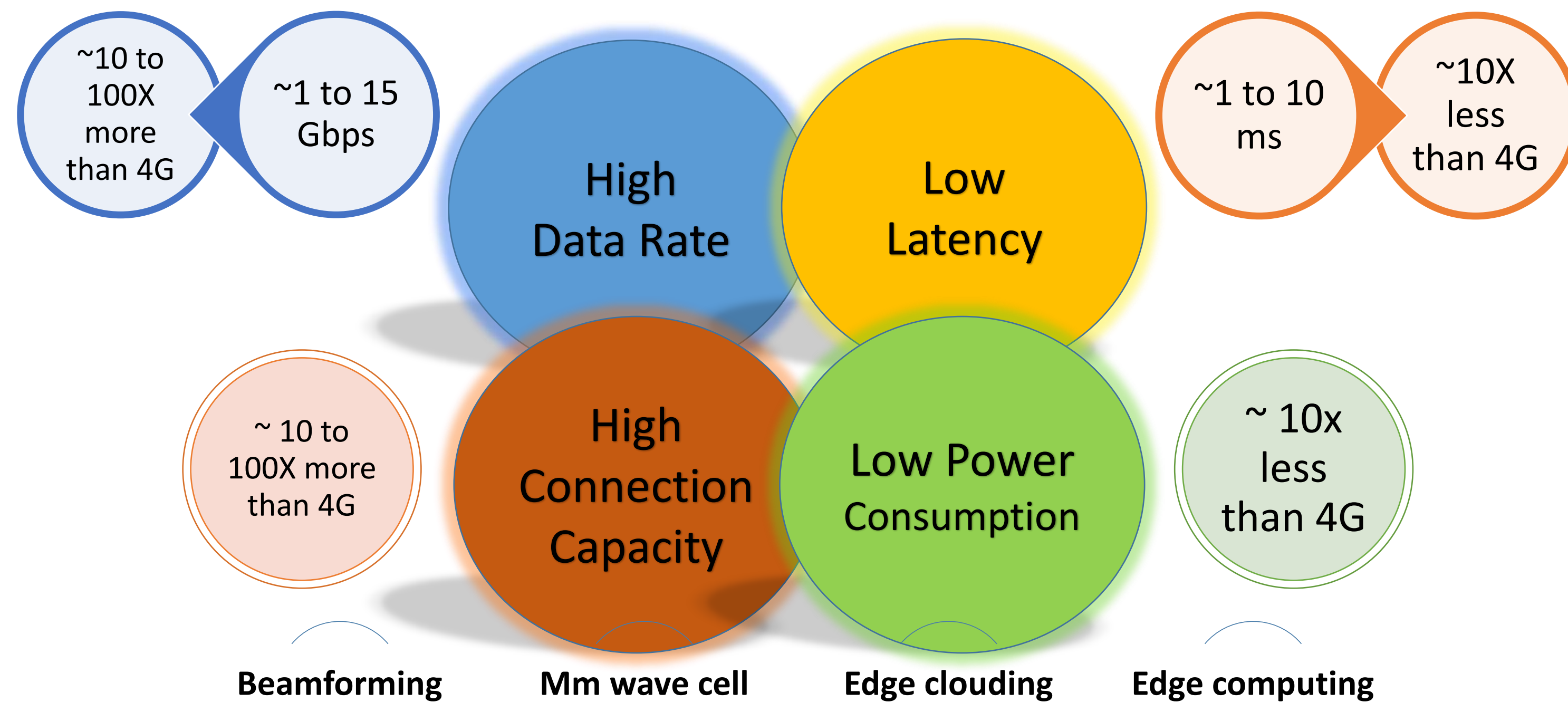


Diagram 01, 5G Features

Data synthesized through compiling data from different resources. (Ijaz et al., 2016) & (Roa and Prasad, 2018) & (Routary and Shrmila, 2016)

Main 5G Applications:

5G will be the key factor and the foundation for emerging Internet of Things (IoT), and industrial IoT (Industry 4.0), which in turn will enable many other vital applications,



4k/8k Video Streaming [3]



Augmented and Virtual Reality (AR&VR) [2]

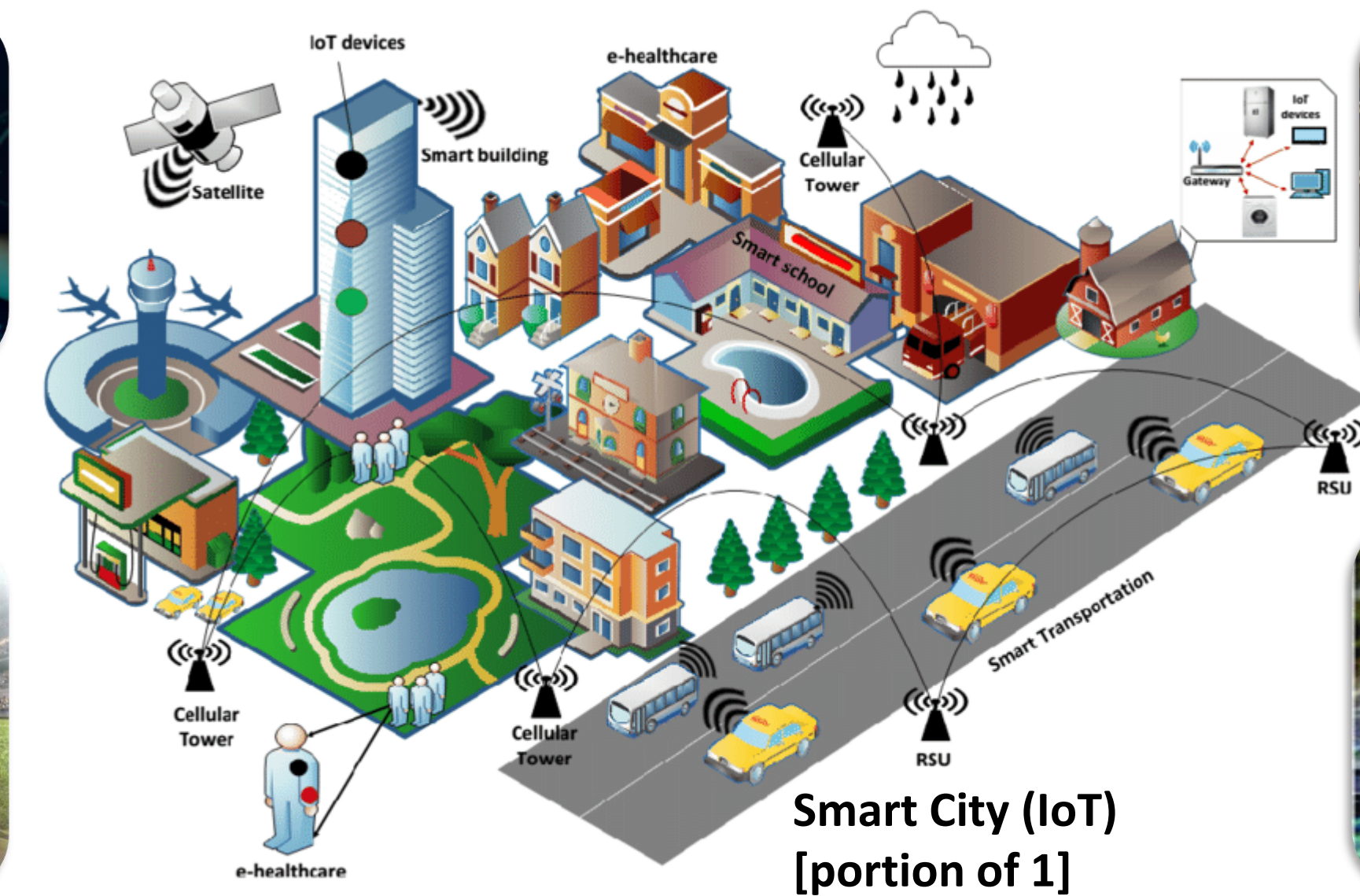


Figure 02, 5G Applications



Smart Industry (Industry 4.0, I-IoT) [2]



Vehicle to Everything (V2X) [portion of 1]

Enjoying high resolution video quality

Transferring to 3 dimensional and interactive-vision.

Connecting sensors to objects (smart city)

Connecting machines to other machines (smart industry)

Connecting vehicle to objects (autonomous vehicle)

Points synthesized from (Digi international Inc., n.d.)

Conclusion:

5G will make our lives better due to its faster, smarter, and more capable and reliable network. With a faster wireless network and IoT, cities will become smarter, and devices and machines will be able to communicate with each other. Ultimately, 5G's impact will be felt in a variety of sectors in society such as recreation, industry, education, and health care. Finally, by understanding the potential of 5G, consumers will be better able to leverage 5G in their social life, professional life, and most importantly be able to communicate with each other more effectively.

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