5G - How will it effect our future

(December 2018)

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**Abstract**—How will the 5th Generation of mobile networking effect the world as we know it today? Will it be comparable to the generations that came before or will it exceed those speeds ten fold. With 5G brings up the topic of IoT(Internet of things), how will 5G effect it and will it bring us closer to it becoming a reality.).

**Index Terms**— 5G – 5th Generation, IoT – Internet of Things)

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# 1 Introduction

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G is the next Generation of mobile networking, succeeding the previous generations of 2G, 3G and 4G. It is engineered to greatly increase the speed and responsiveness of wireless networks as we know them today. This document is a review on 5G technology, where it stands today, the expected performance and how it will effect the future of technology. We are currently in the 4th Generation of mobile networking and despite the term associated with 4G, long-term evolution (LTE), it seems to be reaching the later stages of its evolution and reaching its maturity, where it can only be slightly improved upon. With the sudden boom of global mobile data in recent years, and the traffic that comes with it, it's clear to see why 5G is needed in the future. Explain 5G Definition-Origins. How it will work.

The next era of computing is set to be outside the traditional desktop setup with the ever growning idea of the Internet of things becoming an every day reality. The idea of IoT is that every device will be capable of sending and receiving data through the use of the internet and at high speeds. These devices are usually referred too as "smart" devices, and these devices are usually able to connect to each other in a M2M (Machine to machine) connection.

Smart connectivity with existing networks and context-aware computation using network resources is an indispensable part of IoT. With the current presence of WiFi dominating the majority of home's worldwide and 4G-LTE wireless Internet with coverage throughout most of the country (favouring the more urban areas), the evolution toward ubiquitous information and communication networks is already evident. However, for the Internet of Things vision to successfully emerge, the computing criterion will need to go beyond traditional mobile computing scenarios that use smart phones and portables, and evolve into connecting everyday existing objects and embedding intelligence into our environment. With the introduction of 5G, the hope is that IoT would finally become a reality.

# 2 Research

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**Acknowledgment**

The authors wish to thank A, B, C. This work was supported in part by a grant from XYZ.

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