INTRODUCTION

5G Technology stands for 5th Generation Mobile technology. 5G mobile technology has changed the means to use cell phones within very high bandwidth. User never experienced ever before such a high value technology. Nowadays mobile users have much knowledge of the cell phone technology. The 5G technologies include all type of advanced features which makes 5G mobile technology most powerful and in huge demand in near future.

The extremely large range of innovative technology being built into new cell phones is stunning. A user can also hook their 5G technology cell phone with their Laptop to get broadband internet access. 5G technology including camera, MP3 recording, video player, large phone memory, dialing speed, audio player and much more you never imagine. For children rocking fun Bluetooth technology and Piconets has become in market.

A new revolution of 5G technology is about to begin because 5G technology going to give tough completion to normal computer and laptops whose marketplace value will be effected. There are lots of improvements from 1G, 2G, 3G, and 4G to 5G in the world of telecommunications. The new coming 5G technology is available in the...
market in affordable rates, high peak future and much reliability than its preceding technologies.

Overview
The development of the mobile phone device as a universal part of daily work and personal life presents the opportunity to examine how technology drivers are pushing for the integration of real life with mobile technology in future. A few years ago, this kind of scenario would have sounded mindless, but right now it just looks like the next advance in present mobile technology. Our perception about what new technology is to come has changed from being called “science fiction” to just being addressed as “not yet invented”.

Moore’s law
The way that “Moore’s Law” is usually cited is: “the number of transistors that can be fit onto a square inch of silicon doubles every 12 months.” [6]

Moore’s law describes a long-term trend in the history of computing hardware but it also prove true for wireless technologies. From 1G (First Generation) to 4G (4th Generation), wireless bit rate has increased from 2.4 Kbps to 100 Mpbs.

1G
First generation system Nordic mobile telephone (NMT) was introduced in 1980 and completed in the early 1990s. 1G was analog and supported the first generation of analog cell phones with the speeds up to 2.4 kbps.

2G
Second generation System fielded in the late 1980s and finished in the late 1990s, was planned mainly for voice transmission with digital signal and the speeds up to 64kpbs.2G (GSM) system that started to roll out in 1992.

3G
Third generation System (W-CDMA/ FOMA), is developed in the late 1990S and might be well done in the late 2000S. 3G provided the transmission speeds from 125kpbs to 2Mbps and also included many services, such as global roaming, superior voice quality and data always add-on.

4G
The development of the 2G and 3G (IMT-2000 and UMTS) standards took about 10 years from the official start of the R&D projects, and development of 4G systems started in 2001 or 2002[4] [5]. The speeds of 4G can theoretically be promised up to 1Gbps.

5G
However still no transnational 5G development projects have officially been launched. Predecessor technologies have occurred on the market a few years before the new mobile generation. If 5G families of standards were to be implemented, it would likely be around the year 2020, according to some sources. [1]

Need for 5G
Mobile broadband is becoming a reality, as the internet generation grows accustomed to having broadband access wherever they go and not just at home or in the office. Of the estimated 3.4 billion people who will have broadband by 2014, about 80 percent will be mobile broadband subscribers – and the majority will be served by High Speed Packet Access (HSPA) and Long Term Evolution (LTE) networks. There is strong evidence supporting predictions of increased mobile broadband usage3. So there will need of the very advance technology.

Architecture of 5G Network
Figure 1 shows the system model that proposes design of network architecture for 5G mobile systems, which is all-IP based model for wireless and mobile networks interoperability. The system consists of a user terminal (which has a crucial role in the new architecture) and a number of independent, autonomous radio access technologies. Within each of the terminals, each of the radio access technologies is seen as the IP link to the outside Internet world. However, there should be different radio interface for each Radio Access Technology (RAT) in the mobile terminal. The first two OSI levels (data-link level and physical level) are defining the radio access technologies through which is provided access to the Internet with more or less QoS support mechanisms. Application connections are realized between clients and servers in the Internet via sockets.
Internet sockets are endpoints for data communication flows. Each socket of the web is a unified and unique combination of local IP address and appropriate local transport communications port, target IP address and target appropriate communication port, and type of transport protocol.

Features of 5G Technology

1) 5G technology offers high resolution for crazy cell phone users and bi-directional large bandwidth shaping.
2) The advanced billing interfaces of 5G technology make it more attractive and effective.
3) 5G technology also provides subscriber supervision tools for fast action.
4) The high-quality services of 5G technology based on Policy to avoid error.
5) 5G technology is providing large broadcasting of data in Gigabit which supporting almost 65,000 connections.
6) 5G technology offers transporter class gateway with unparalleled consistency.
7) The traffic statistics by 5G technology make it more accurate.
8) Through remote management offered by 5G technology a user can get better and fast solution.
9) The remote diagnostics also a great feature of 5G technology.
10) The 5G technology is providing up to 25 Mbps connectivity speed.
11) The 5G technology also supports virtual private network.
12) The new 5G technology will take all delivery service out of business prospect.
13) The uploading and downloading speed of 5G technology touching the peak.
14) The 5G technology network offering enhanced and available connectivity just about the world.

CONCLUSION

While the future is becoming more difficult to predict with each passing year, we should expect an accelerating pace of technological change. We
conclude that nanotechnology, Cloud computing, All IP are the next great technology. The development of the mobile and wireless networks is going towards higher data rates and all-IP principle.

REFERENCES

1. Alcatel-Lucent chair on Flexible Radio, working on the concept of small cells.
2. IBM Research News.