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A Study of Next Generation Wireless Network 6G

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ABSTRACT: Wireless mobile communication is being used from many years, but day by day Need of facilities on mobile is increasing, so time to time next integrated Versions of network is introduced. There are various generations of mobile Network 1G, 2G, 3G, 4G and 5G. Latest version is 5G, but only some countries are using 5G wireless network. 5G network is strong and very fast wireless communication network, it is and it will fulfill most of the requirement of users. But it is not end of the desires , so for meet desires of user next generation of mobile network also introduced 6G & 7G. This paper is about introduction and advancement of 6G & 7G for future.

KEYWORDS: 1G,2G,3G,4G,5G,6G, Handover.

I. INTRODUCTION

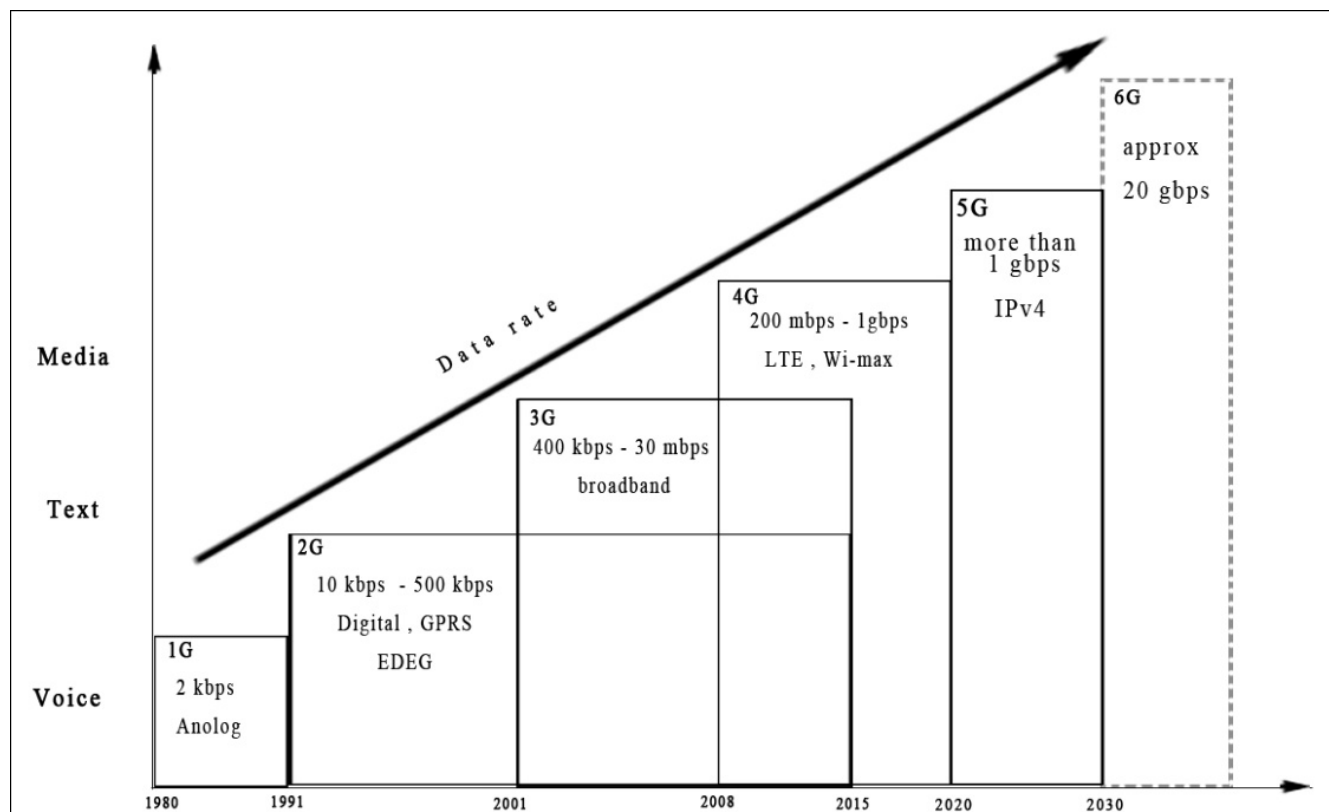
Today the whole world is aware of the revolutionary changes in cell phone communication field. Wireless communication has brought in the new innovation in this field. In the context of present scenario the 3G experienced better internet experience. Later on 3g has been improvised. It has been felt the urgency to have a better communication networks then 5g has came which can be a complete wireless communication without any hindrance and limitations. It is completely advanced in terms of wireless communication. In 5G system each and every cell phone will have a permanent home "IP address and care of address".

Now awaiting future will experience 6G. In present time cell phones have everything and are compact, with high memory and high speed with low power consumption. Today Bluetooth technology and other technology are just like a child's play. 6G wireless cell phone communication network shall meet world class standard covering the whole world under its communication just like Global covering system has been devised by some companies. This individual system creates difficulty in space roaming. 7G mobile phone communication system is developed to integrate these in one unit communication system.

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6G WIRELESS MOBILE NETWORKS

6G means 6th generation wireless mobile technology, it will be integrated version of 5G wireless mobile technology. 6G will also deal with satellite network for the global coverage. There are three types of satellite network: telecommunication satellite network, Navigation satellite network and Earth imaging satellite.

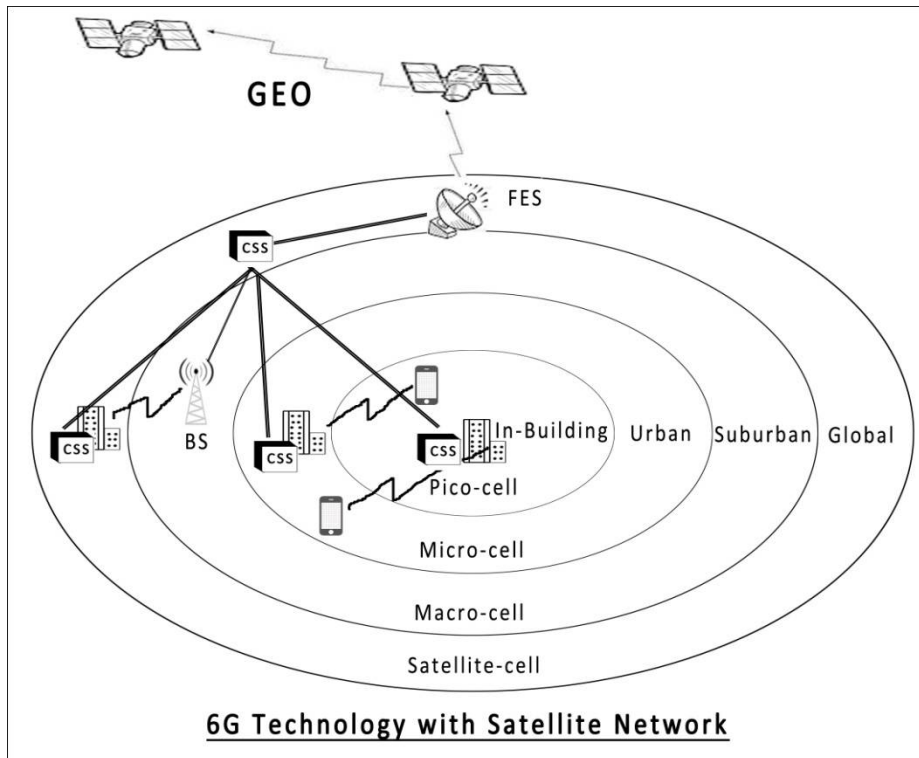
6G technology increases performance and maximizes our data throughput. This technology also provides more security to our system and data, it also expands our data configuration options. In this technology, wireless broadband will be used to connect devices to the internet. Data speed of 6G devices will be 1GB or even more. 6G technology also consists of better security of wireless standards and data transmission. 6G technologies will exceed the expectations of the users.

Because 6G is a satellite-based network, so roaming and handover from one satellite to another satellite will be an issue that will be solved soon.

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6G Technology with Satellite Network

6G internet will be a very fast wireless network, combination of the latest in radio and fiber optics technology is used. Delivery in 6G network through line of sight, means speed of internet not depends on the distance between your business and exchange.

Handover (handoff) - When a mobile user travels from one area of coverage or cell to another cell within a call's duration the call should be transferred to the new cell's base station.

Handoffs are expensive to execute, so unnecessary handoffs should be avoided. Unreliable and inefficient handoff procedures will reduce the quality and reliability of the system.

Generation	Started at	Technology	Data rates	Main network	Handover	Sub generation
1G	1980	Analog wireless	2 kbps	PSTN	Horizontal	1G only
2G	1991	Digital wireless, GPRS, EDEG	10 kbps to 500kbps	PSTN, GSM, WCD	Horizontal	2.5G, 2.75G
3G	2001	Broad Band IP Tech	400kbps to 30 mbps	Packet , GSM, TDMA	Horizontal & Vertical	3.5G, 3.75G
4G	2008	LTE, Wi-max	200mbps to 1gbps	Internet	Horizontal & Vertical	4G only
5G	Will start 2020	IPv4	Higher than 1Gbps	Internet	Horizontal & Vertical	5G till now



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II. CONCLUSION AND FUTURE WORK

We can say that, present wireless technology (1G to 4G) is meeting all the requirements of users. But present generation wants everything should be fast that's why we are thinking about broad and fast across all the boundary of requirement and efficiency. That's why we are thinking about next generation of wireless network 6G. 6G will fulfill most of the demand of the present and next generation user.

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BIOGRAPHY

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