Global Cellular Networks Market by technology (2G and 3G, 4G, 5G), by frequency (Edge, UMTS, LTE), by application (mobile phones, USB/power dongles, modem/router), by type of connection (post-paid, pre-paid)

Market Synopsis:

In the recent years, smart phone usage has been increased tremendously and expected to grow at much higher speeds in future. This rapid increase in mobile phones is creating a large impact on cellular network.

Two mobile devices are connected to each other through cellular network, by cells connected under base stations over a wide geographical area. For this, the cellular operators are offering two types of subscription such as pre-paid and post-paid.

In the current market scenario, cellular networks are using 4G technology through 3GPP family under LTE band. The advanced technology 5G is still in research phase and successfully tested by some of key market players. In Mobile World Congress Barcelona, NTT Docomo demonstrated remote control of robots via virtual remote system through 5G technology hitting a download speed of 15Gbps during the demo. Trails have also demonstrated network slicing to support delivery of services tailored to specific types of customer or service, combination of technologies such as massive MIMO, or complex beam forming that are needed to achieve very high speeds; or backhaul, cloud and edge computing arrangements to support very low potentials.

Motorola Solutions partnered with Kodiak to offer its cloud based PTT solution and management platform, which provides instant performance over existing networks. Idea and Vodafone merged its operations in India to reduce the operating costs and to provide quality services to its customers.

Market Segmentation:

The global cellular networks market is segmented on the basis of technology, frequency, and application and by connection type. On basis of frequency, the segment is further classified into EDGE, UMTS and LTE. EDGE refers to Enhanced data rates for GSM revolution. It is one of the most widely used frequency before 3G. UMTS refers to Universal Mobile Telecommunications System, commonly known as frequency for 3G. It was the first network that was fast enough to support mobile browsing. It laid the foundation for IoT. LTE refers to Long Term Evolution, which is advanced than 3G. It draws less battery power and enables co-existence and roaming. The emergence of other Low Power Wide Area Networks (LPWAN), such as LoRA and SigFox, and comparatively higher costs of cellular modules may hamper the market growth in the coming years. The role played by emerging technologies such as Narrow Band-IoT and Narrow Band-LTE-M will be instrumental in the hustle for gaining M2M market share. These technologies are specifically designed for IoT applications and are on the verge of commercialization with numerous pilot projects being launched in different parts of the world. Cellular IoT has many advantages such as broader coverage, deep indoor penetration and smaller module size, which are preferred in high density situations. All cellular networks are promoting cellular IoT and is expected to show growth in the market.

Regional Analysis:

Even though North America and Europe are key players in the cellular network, they are expected to show slow growth in the coming years. Asia Pacific is estimated to be the key specific region over the coming years due to high increase in mobile connectivity rates and digitalization in the countries such as China and India. Reliance communications merger with Sistema is projected provide spectrum access to provide 4G services across Asia level. The industries are going to employ remote monitoring, cloud connectivity, remote operation and remote maintenance to move towards automation.
Market Research Future identifies some of the key players in the global market: AT&T Inc. (U.S), Verizon Communications (U.S), Alcatel Lucent (France), Bharti Airtel Ltd (India), NTT Docomo (Japan), Reliance Communications Ltd (India), Singapore Telecommunications Ltd (Singapore), China Mobile Ltd (China)

Segments:

For the purpose of this study, Market Research Future has segmented the global cellular networks into technology, frequency, application, and type.

By Technology:
- 2G and 3G
- 4G
- 5G

By Frequency:
- EDGE
- UMTS
- LTE

By Application:
- Mobile Devices
- USB / Power Dongles
- Modem or Router

By Connection Type:
- Pre-Paid
- Post-paid

Intended Audience:
- Network Operators
- Data Base Solutions
- Software Developers
- Product Manufacturers
- Wireless service providers
- Network Providers

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