

6G Market by Enterprise Application (Holographic Communication, Tactile/Haptic Internet, Fully Automated Driving, Industry 5.0, Internet of Bio-Nano-Things, Deep-sea Sightseeing), Usage Scenario (FeMBB, ERLLC, umMTC, LDHMC, ELPC) -Global Forecast to 2035

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Report description:

The 6G market is estimated at USD 3.96 billion in 2030 to USD 68.69 billion by 2035, at a Compound Annual Growth Rate (CAGR) of 76.9%. 6G has led to the demand for broadband, reliable connectivity for proper support of virtual meetings and collaborative platforms, and seamless enterprise resource access. More increasingly, businesses and teams rely on digital tools for communication and project management and, therefore, demand networks that can carry big volumes of data without interruptions in performance. With such ultra-fast speeds and low latency, 6G technology will play an important role in accommodating such necessities - from extremely clear video conferencing to rapid file transfers and smooth collaboration work. Connectivity will not only make people more productive but make remote work places even more dynamic and interactive to help organizations run successfully in a digital-first environment.

"By usage scenario, FeMBB segment to hold the largest market size during the forecast period."

The further-enhanced mobile broadband is the key usage scenario for 6G technology. This offers the user a significantly higher data rate, improved reliability, and ultra-low latency compared to today's mobile broadband. As such, it can provide very-high-bit-rate speeds as required by the user to ensure immediate downloads, gigabit per second, smooth browsing, and faster file transfers. Quality of Service in terms of low-latency connections and fewer contents of buffering are really important for applications demanding real-time or high-bandwidth communication. It also supports a variety of high-definition multimedia content, bringing networks up to speed for ultra-high-definition video streaming, interactive virtual reality experiences, and gaming applications, thus bringing mixed multimedia on mobile devices. FeMBB also supports holographic communications, full sensory digital sensing and reality, and the haptic internet, all exploiting its high potential for extreme HD and super HD video

delivery. Advanced modulation and coding schemes combined with highly spectrum-efficient transmission techniques allow more data to be transmitted in the same frequency bands. This technology especially helps densely populated urban areas and big events, which are prone to network congestion, thus affecting performance, changing personal digital experiences, and stimulating innovative services in various fields such as education, entertainment, and health.

"The healthcare & life sciences segment to register the fastest growth rate during the forecast period."

6G will revolutionize the healthcare and life science sectors only with 6G networks, as it promises to bring unprecedented medical technology, patient care, and research developments. Physicians will have high-definition virtual consultations, receive real-time diagnostic data directly from wearable devices, and be capable of controlling or performing surgery with near-zero lag through robotic systems. It will mean life or death for those patients living in rural or underserved communities where 6G is bringing high-quality healthcare close to home. 6G will also enable the healthcare sectors to handle the large volume sizes of data in genomics and personalized medicine, which will lead to Al-based diagnostics and treatment programs for individualized patients. Advanced research and development in biotechnology, pharmaceutical trials, and bioinformatics will be supported across life sciences. The analysis and sharing of data worldwide will become easy and smooth, accelerating the drug discovery and development processes. Smart devices will be included in hospitals and healthcare centers. 6G will help the hospital to digitize their operations effectively, optimize the way resource management is conducted in hospitals, and benefit the patients with improved outcomes.

"North America to hold the second largest market size during the forecast period."

In North America, efforts to push forward toward 6G are being led by significant investments and strategic moves in its next-generation connectivity. The two are engaging global leaders to accelerate research and deployment of 6G. Launched by the Alliance for Telecommunications Industry Solutions, the Next G Alliance is the biggest step in positioning North America as a leader for 6G over the next decade. This project focuses on private-sector-led research, development, and commercialization of 6G technologies. Innovation will be supported through collaborative projects and provide a clear roadmap for integrating 6G into several industries. Meanwhile, in February 2024, the Government of Canada has adopted the Joint Principles for 6G, developing the Telecommunications Reliability Agenda to strengthen network reliability and to protect Canadians. Acceptance has highlighted Canada's zeal for participation in the global agenda and initiatives surrounding telco, including the Global Coalition on Telecommunications, Prague Proposals on Telecommunications Supplier Diversity, and the UK's Open RAN Principles. All together, North America is here to lead this emerging 6G landscape.

In-depth interviews have been conducted with chief executive officers (CEOs), Directors, and other executives from various key organizations operating in the 6G market.

-[]By Company Type: Tier 1 - 70%, Tier 2 - 20%, and Tier 3 - 10%

- By Designation: C-level -73%, Managers - 18%, and Others - 9%

- By Region: North America - 55%, Europe - 9%, Asia Pacific - 36%

The major players in the 6G market include AT&T (US), NTT DoCoMo (Japan), Orange (France), Jio (India), Bharti Airtel (India), Vodafone Group (UK), SK Telecom (South Korea), Deutsche Telekom (Germany), Verizon (US), China Mobile (China), Telefonica (Spain), China Unicom (China), Rakuten Mobile (Japan) KT Corporation (South Korea), Singtel (Singapore), and KDDI Corporation (Japan). These players have adopted various growth strategies, such as partnerships, agreements and collaborations, new product launches, enhancements, and acquisitions to expand their 6G market footprint.

Research Coverage

The market study covers the 6G market size across different segments. It aims at estimating the market size and the growth potential across various segments, including By Usage Scenario (Further-Enhanced Mobile Broadband (FEMBB), Extremely Reliable And Low-Latency Communications (ERLLC), Long-Distance And High-Mobility Communications (LDHMC), Ultra-Massive Machine Type Communications (UMMTC), Extremely Low-Power Communications (ELPC)) By Enterprise Application (Holographic Communications, Tactile/Haptic Internet, Fully Automated Driving, Industry 5.0, Internet Of Bio-Nano-Things, Other Enterprise Applications (Deep-Sea Sightseeing And Space Travel)), By Communication Infrastructure (Cellular, Broaband, Fixed) By End-User (Consumer and Enterprise (Manufacturing, Healthcare & Life Sciences, Automotive, Media & Entertainment, Aerospace & Defense,

Other Enterprises [Retail & Ecommerce, Energy & Utilities, Education])) and Region (North America, Europe, Asia Pacific, Middle East & Africa, and Latin America). The study includes an in-depth competitive analysis of the leading market players, their company profiles, key observations related to product and business offerings, recent developments, and market strategies.

Key Benefits of Buying the Report

The report will help the market leaders/new entrants with information on the closest approximations of the global 6G market's revenue numbers and subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. Moreover, the report will provide insights for stakeholders to understand the market's pulse and provide them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Technological Advancements, Deliver Extreme Performance And Highly Advanced Use Cases, Growing Metaverse Traction), restraints (High initial cost, Limited Spectrum Availability, Regulatory and Standardization Challenges, Terahertz (THz) Frequency Challenges and Energy Efficiency Concerns), opportunities (Transformative Applications, Global Connectivity, Detailed sensing and high-precision positioning technologies offered by 6G networks), and challenges (Security and Privacy, Ethical and Social Implications, Environmental Concerns) influencing the growth of the 6G market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the 6G market.

Market Development: The report provides comprehensive information about lucrative markets and analyses the 6G market across various regions.

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the 6G market.

Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading include include AT&T (US), NTT DoCoMo (Japan), Orange (France), Jio (India), Bharti Airtel (India), Vodafone Group (UK), SK Telecom (South Korea), Deutsche Telekom (Germany), Verizon Communications (US), China Mobile (China), Telefonica S.A. (Spain), China Unicom (China), and Rakuten Mobile (Japan) KT Corporation (South Korea), Singtel (Singapore), KDDI Corporation (Japan).

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