

5G Infrastructure Market Thrives on Network Upgrades, Edge Computing Needs, and Demand for Low-Latency Connectivity

5G Infrastructure Market grows as telecoms expand network coverage to support high-speed, low-latency services across industries and urban centers.

AUSTIN, TX, UNITED STATES, November 11, 2024 /EINPresswire.com/ -- Market Scope and Overview

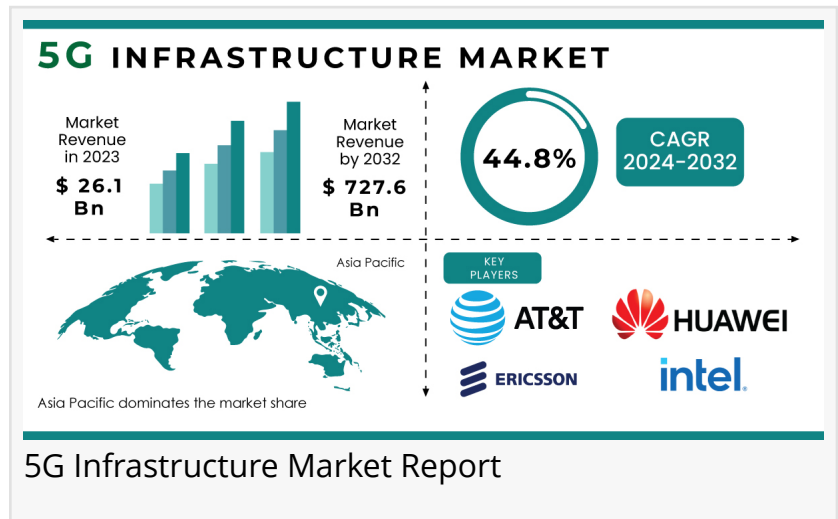
The global [5G Infrastructure Market](#) is experiencing exponential growth, driven by the increasing demand for high-speed, low-latency connectivity solutions across various sectors such as telecommunications, healthcare, and transportation.

The 5G Infrastructure Market is projected to reach a valuation of USD 727.6 billion by 2032, growing at a significant compound annual growth rate (CAGR) of 44.8% from 2024 to 2032.

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Major Key Players Studied in this Report are:

- AT&T
- Huawei Devices
- Ericsson
- Intel Corporation
- Mediatek
- Nokia Corporation
- Qualcomm Technologies
- Hewlett Packard Enterprise
- Samsung Electronics
- Verizon



□ Others

Trends Driving the 5G Infrastructure Market

The growth of the 5G infrastructure market is attributed to several factors, including the rising adoption of smart devices, IoT, and the increasing demand for high-quality video streaming and gaming services. 5G infrastructure, which includes core network elements, Radio Access Network (RAN) systems, and edge computing, is essential for delivering enhanced connectivity with faster data speeds, lower latency, and the ability to support massive IoT networks. Moreover, the need for smart city development and industrial automation solutions is driving telecom operators and infrastructure providers to invest heavily in 5G technologies.

The demand for 5G-enabled applications is rapidly growing across industries such as autonomous driving, smart factories, and remote healthcare services, creating new opportunities for 5G infrastructure providers. The market is also benefiting from government initiatives to promote digital transformation and support network infrastructure investments. For example, the US and China have been at the forefront, allocating substantial funding to nationwide 5G rollouts. By 2025, 5G is expected to account for over half of mobile connections in leading markets, further accelerating infrastructure demand.

Market Segmentation Analysis

By Communication Infrastructure

In 2023, the Radio Access Network (RAN) segment held the dominant market share of approximately 40%. RAN infrastructure is crucial in managing data traffic between connected devices and the core network, and its importance will continue to rise as more devices connect to 5G networks. The development of advanced Massive MIMO (multiple-input, multiple-output) technology in RAN systems has enhanced data transmission rates and expanded network coverage, making it a critical component of 5G infrastructure.

RAN infrastructure is expected to receive significant investment in both urban and rural areas as telecom providers look to extend 5G connectivity beyond major metropolitan regions. With rising investments from major telecommunications companies in RAN technology, this segment is expected to maintain its leadership in the market over the coming years.

By Network Architecture

In 2023, the Non-Standalone Architecture (NSA) segment dominated the market, accounting for an 80% share. NSA allows telecom operators to leverage existing 4G infrastructure for initial 5G deployments, reducing deployment costs and accelerating rollout times. The NSA segment has been favored for early 5G launches due to its cost-effectiveness and shorter deployment timeline.

However, the Standalone (SA) architecture segment is expected to gain momentum during the forecast period. SA architecture offers enhanced 5G capabilities such as ultra-low latency, network slicing, and high reliability, making it ideal for industrial automation, mission-critical communications, and immersive AR/VR applications. As the technology matures, SA deployments are expected to increase, particularly in industries that require more advanced and customizable network solutions.

Market Segmentation and Sub-Segmentation Included Are:

By Communication Infrastructure

- RAN (Radio Access Network)
- C-Ran/V-Ran
- Small Cell
- Massive MIMO

- Transport Technology
- Software-Defined Networking (SDN)
- Network Slicing
- Core Technology
- Network Function Virtualization (NFV)
- Mobile Edge Computing

By Spectrum Band

- Low Band (<1 GHz)
- Mid Band (1-6GHz)
- High Band (24-40GHz)

By Network Architecture

- 5G NR Non-Standalone (LTE Combined)
- 5G Standalone (NR □ Core)

By End User

- Residential
- Commercial
- Industrial
- Government

Regional Analysis

The Asia-Pacific region led the market, capturing the largest share of 42%. Key markets like China, South Korea, and Japan are at the forefront of 5G adoption, driven by government support, strong technology infrastructure, and a high concentration of smartphone users. In China, 5G deployment is part of the broader “Made in China 2025” initiative, which aims to boost the country’s technological capabilities. Additionally, India’s recent efforts to accelerate 5G deployments are expected to create significant demand for 5G infrastructure in the Asia-Pacific region.

North America is anticipated to experience the highest CAGR from 2024 to 2032. This growth is driven by substantial investments in network infrastructure by telecom operators and technology giants. The US, in particular, has witnessed rapid 5G rollouts, with major players such as Verizon, AT&T, and T-Mobile deploying extensive 5G networks to meet the high demand for enhanced mobile services. Additionally, government incentives aimed at improving digital connectivity are propelling further growth in North America’s 5G infrastructure market.

Recent Developments in 5G Infrastructure

In January 2024, T-Mobile partnered with Cisco to introduce Connected Workplace, a managed service designed to support medium-sized, multi-location businesses, marking T-Mobile's expansion into the enterprise space.

In September 2023, Siemens unveiled a private 5G infrastructure solution designed to help industries create localized 5G networks to enhance automation.

Enquire for More Details @ <https://www.snsinsider.com/enquiry/1271>

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