A-Core Container

Why 5G communication requires more base stations

Overview

What is the demand for 5G base stations?

With the growing deployment of the 5G network, demand for 5G base stations is also increasing. Global System for Mobile Communication (GSMA) estimates that 5G networks would be utilized by one-third of the world’s population by 2025. In addition, 5G will register around 1.2 billion connections by 2025.

Why is 5G better than 4G?

Because 5G operates at higher frequencies, it requires a much denser network of base stations. In urban environments, this means installing 10 times more base stations per square kilometer compared to 4G. This presents both opportunities and challenges. On one hand, denser networks lead to better speeds and connectivity.

Why are telecom companies installing indoor 5G base stations?

To solve this, telecom companies are installing indoor 5G base stations, which are growing at a compound annual growth rate (CAGR) of over 30%. For businesses operating in offices, malls, or large commercial spaces, installing indoor 5G solutions can greatly enhance connectivity.

What is a 5G base station?

They help fill coverage gaps, improve network reliability, and handle high data traffic. In cities, more than 60% of 5G base stations are small cells, placed on rooftops, lampposts, and building facades. These mini base stations are crucial for delivering consistent 5G speeds in crowded areas like stadiums, shopping malls, and business districts.

What is the future of 5G?

The future of 5G is clear: more base stations, wider coverage, and improved connectivity. Industry forecasts suggest that by 2025, the total number of 5G base stations worldwide will surpass 5 million. This expansion will be driven by

ongoing urbanization, demand for high-speed connectivity, and technological advancements.

What is 5G & how does it work?

One of the biggest changes in 5G infrastructure is the rise of small cells. Unlike traditional large cell towers, small cells are compact, low-powered base stations designed for dense urban environments. They help fill coverage gaps, improve network reliability, and handle high data traffic.

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