

WIRELESS INFRASTRUCTURE SAMPLE REPORT

Get an in-depth analysis of the current state, trends, and future of the wireless infrastructure technology market, including insights into key drivers, changing product lifecycles, and manufacturing challenges.



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1. Introduction

2024 marks a pivotal point in the evolution of the wireless infrastructure market. As our reliance on data consumption and seamless connectivity grows, the underlying network that supports the demand is undergoing significant transformation. This report delves into the key trends, challenges, and opportunities shaping the wireless infrastructure landscape over the next year.

The emergence of Open Radio Access Networks (Open RAN) is a game-changer. It promises to shift the wireless network landscape by fostering greater flexibility and interoperability. Unlike traditional, closed RAN systems, Open RAN allows network operators to mix components from different suppliers, offering greater flexibility in network design. This approach could potentially lead to cost savings and innovation while promoting vendor neutrality and fostering competition within the market.

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2. Industry Overview

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2.1 Market Outlook

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2.2 Regional Outlook



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2.2.1 North America

North America holds the current crown in the wireless infrastructure market, fueled by a robust foundation. The region boasts a high penetration of LTE and 4G services, driven by the presence of major players like the United States and Canada.



2.2.2 Asia Pacific

2.2.3 Europe

of Comparison

2.3 Segment Outlook

2.3.1 5G

5G deployment will be a significant focus, with operators investing heavily in network upgrades and infrastructure expansion. Advancements in 5G Stand-Alone (SA) architecture are expected to enable network slicing for diverse applications like ultra-reliable low-latency communication (uRLLC) and massive machine-type communication (MTC). Research and development (R&D) efforts in 6G technologies will pick up pace in 2024. areas will likely include even higher data rates, lower latency, and support for many connected devices. Initial

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2.3.3 Hyperscalers

2.4 Market Dynamics

2.4.1 Growth Enablers

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2.4.1.1 Rising Demand for 5G

The rollout of 5G networks is a significant catalyst for growth in the wireless infrastructure market. 5G promises a revolution in mobile connectivity, offering ultra-fast speeds, significantly lower latency, and vastly enhanced capacity. This translates to a surge in demand for improved wireless infrastructure to ensure users can fully experience these benefits.

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2.4.1.2	Increasing Data Usage			
2.4.1.3	Technological Advancements			
2.4.1.3	reclinotogical Advancements			
2.4.1.4	Government Initiatives			

2.4.2 Growth Inhibitors

While the wireless infrastructure market is experiencing significant growth, several key challenges remain. These challenges can hinder the adoption and optimal performance of next-generation technologies like 5G.

2.4.2.1 High Costs

Building and maintaining a robust wireless infrastructure is expensive, especially for cuttingedge technologies like 5G. The financial burden starts with securing spectrum licenses. These licenses grant operators the exclusive right to use specific radio frequencies within a



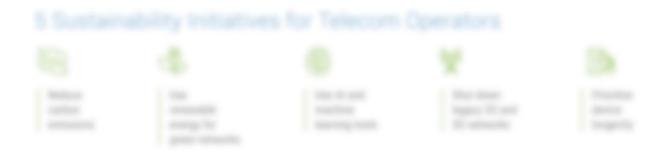
designat in dense	ed area. However, obtaining these licenses can be competitive and costly, particularly ly populated urban areas with high demand for bandwidth.
2.4.2.2	Technical Challenges
2.4.2.3	In-Building Wireless Challenges
2.4.2.4	Absence of "Killer app" for 5G



3. Supply Chain

3.1 Sustainability

The telecommunications industry is actively seeking solutions to minimize its environmental footprint. A 2022 report by GSMA, the mobile industry trade body, revealed a significant increase in operator commitment to sustainability. The number of operators pledging to reduce their carbon footprint over the next decade has more than doubled since 2021. Furthermore, nearly half of all operators, representing 44% of global telecom revenue, have committed to achieving net-zero emissions by 2050. The environmental impact of mobile technology is undeniable. As per the TechTarget sustainability report, A typical mobile connection generates roughly 59 kilograms of carbon dioxide annually, a significant amount compared to other activities. However, this pales compared to the emissions associated with air travel, highlighting the potential for positive change within the mobile sector.



Five strategies are driving sustainability efforts in the Wireless industry.

Here's a closer look at some of the significant sustainability initiatives being undertaken:

Reducing Carbon Emissions



Embr	racing Renewable Energy a	and Green Networ	ks	
Lever	raging Al and Machine Lea	rning		
3.2	Circular Econom	У		

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3.2.1 Reshoring and Nearshoring





3.2.2 Covid-19 & Semiconductor scarcity The amount frame imprised in fourth America is characterized by its maturity. Necessing an entancing consensus energy efficiency, and security. The region boards agents and of other in integrating it and note control, primarily forward decreas the Amazon's Euler and Songle. form after face became focushed digitis. The abancament is projected by consumers proctors compatibility between different decreas and systems, among for a spentions empirihave appropriate Depths to advances, the reprint continues to face to recent challenges. resided to privary concerns and the complexity of device solvar, which requires a contain level of Company of the efficiency flower-intensity inventions and a calculate direct flower to contain this practices. agefloads, ofluence the region's facus. Smart maters and energy management systems are particularly propriet callering to the demand for devices that reduce energy concumption. Additionally flame's a growing hand towards enhanced home security systems. This increases is parily driven by regional comforts and garged lived fernions, which, along with drilling regration patterns, have led to a rise in demonstruction rates. Consequently, Barrier a terpitarian derivated for advanced security products, including surrentiance cannot as and notion among its ensure household white Moranon. He aging arguitation in Europe. represents another ordinal segment, with ensert form uninform faculting or safety and



4. Technology Evolution

4.1 Evolution of 1G to 5G

Since its inception, wireless technology has undergone a remarkable transformation. This journey, marked by five distinct generations (1G to 5G), has revolutionized how we connect and interact with the world.





4.2 6G Technology

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5. Jabil Insights

5.1 Current Market Outlook - Analyst Perspective

The wireless infrastructure market 2024 is characterized by a growing interest in Open Radio Access Networks (Open RAN) alongside lingering cost concerns. While Open RAN offers the benefit of greater flexibility and interoperability between equipment from different vendors, its current reliance on Field-Programmable Gate Arrays (FPGAs) makes it pricier compared to traditional radios built with Application-Specific Integrated Circuits (ASICs).

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5.2 Strategic Considerations

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5.3 Jabil Spend Analysis

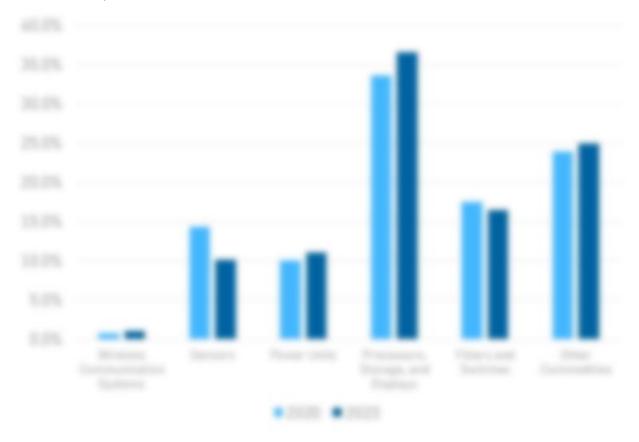
5.3.1 Spend Breakdown of Wireless Infrastructure Sectors (2020 Vs 2023)



Data based on Jabil's historical spend data for Wireless Infrastructure Customer Segment



5.3.2 Spend Breakdown of Wireless Infrastructure Commodities (2020 Vs 2023)



Data based on Jabil's historical spend data for Wireless Infrastructure Customer Segment



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