

Private 5G Network Market Outlook 2025-2034: Market Share, and Growth Analysis By Component (Hardware, Software, Services), By Deployment Type (On-Premise, Cloud), By Frequency Band, By Spectrum, By Vertical

<https://marketpublishers.com/r/P82B6039E850EN.html>

Date: October 2025

Pages: 160

Price: US\$ 3,950.00 (Single User License)

ID: P82B6039E850EN

Abstracts

The Private 5G Network Market is valued at USD 6 billion in 2025 and is projected to grow at a CAGR of 37.5% to reach USD 105.4 billion by 2034. The private 5G network market is a rapidly growing sector driven by increasing demand for secure, high-speed, and low-latency connectivity across industries. Private 5G networks are dedicated, on-premises networks built specifically for enterprises, offering enhanced control over data security, quality of service, and network management. These networks are crucial for sectors such as manufacturing, healthcare, logistics, and education, where real-time data processing and connectivity are vital. With the rise of Industry 4.0, smart factories, and the IoT (Internet of Things), private 5G networks provide the bandwidth and reliability necessary for these advanced technologies. They offer enterprises the ability to avoid the congestion and limitations associated with public networks, ensuring more efficient operations and enhanced user experiences. The increasing interest in remote work and collaboration has further fueled the demand for private 5G networks, allowing businesses to implement secure and reliable communication solutions. Furthermore, with telecom operators and network vendors developing private 5G solutions tailored for specific industries, the market is expected to see continued growth. As more enterprises realize the benefits of private 5G networks, such as enhanced security, operational efficiency, and support for critical applications, their adoption is expected to increase across various sectors. The private 5G network market is expected to witness significant developments as the technology becomes increasingly accessible to enterprises of all sizes. The adoption of private 5G solutions is anticipated to grow across industries such as manufacturing, healthcare, retail, and logistics, where high-

speed, reliable, and secure connectivity is essential. In particular, the demand for private 5G networks is expected to surge in smart manufacturing applications, where they enable real-time communication between machines, sensors, and systems, driving efficiencies in production lines and operations. Additionally, industries such as healthcare are expected to adopt private 5G networks for telemedicine, remote diagnostics, and patient care applications, enabling faster data transfer and reducing latency. As more telecom operators roll out 5G infrastructure, businesses will benefit from improved connectivity options tailored to their specific needs. Moreover, the increasing availability of cost-effective private 5G solutions and more flexible network deployment models, including cloud-based private 5G, will help businesses reduce the cost of adopting the technology. The growing interest in 5G-enabled IoT applications, such as connected devices and autonomous vehicles, will further drive demand for private 5G networks in the coming years. The private 5G network market is poised to see even greater growth as businesses increasingly prioritize secure and high-performance connectivity for their operations. In the coming years, private 5G networks will likely become a standard solution for enterprises looking to embrace digital transformation and optimize their business processes. The emergence of new use cases, such as autonomous vehicles, drone communication, and smart cities, will further fuel the demand for private 5G networks. As the adoption of Industry 4.0 technologies expands, private 5G networks will play a crucial role in enabling the seamless integration of AI, machine learning, and IoT into business operations. Furthermore, network slicing and the integration of edge computing capabilities in private 5G networks will open up new opportunities for businesses to tailor their networks for specific use cases and deliver enhanced performance and security. As the 5G ecosystem continues to mature, private 5G networks will become a key enabler for digital businesses, providing them with the infrastructure needed to stay competitive and meet evolving market demands.

Key Insights Private 5G Network Market

Edge Computing Integration: The combination of edge computing with private 5G networks will enable enterprises to process data locally, reducing latency and improving real-time decision-making in critical applications.

Network Slicing: The adoption of network slicing will allow businesses to create customized virtual networks within the private 5G infrastructure, providing flexibility in resource allocation based on specific requirements.

IoT and AI Integration: The growth of IoT and AI applications will drive the

demand for private 5G networks, enabling seamless communication and real-time data processing across connected devices and systems.

Enterprise-focused 5G Solutions: Telecom operators will continue to develop private 5G solutions tailored for specific industries, addressing the unique needs of businesses in sectors such as healthcare, logistics, and manufacturing.

Cybersecurity Emphasis: As data security becomes a top priority, private 5G networks will increasingly offer enhanced security features, providing enterprises with better control over their data and reducing exposure to cyber threats.

Demand for Low-Latency Communication: The increasing need for real-time data processing, especially in industries like manufacturing and healthcare, drives the demand for private 5G networks that offer low-latency connectivity.

Security and Control: Private 5G networks provide businesses with greater control over their network security, enabling them to mitigate risks associated with using public networks for sensitive applications.

Cost-Effective Solutions: The emergence of cloud-based private 5G solutions and more flexible deployment models make it more affordable for businesses to implement private 5G networks without significant upfront investment.

Industry 4.0 Adoption: The rise of smart manufacturing, IoT, and automation technologies is driving the need for reliable, high-speed connectivity solutions like private 5G networks to support these advanced systems.

Integration Complexity: The integration of private 5G networks with existing IT and network infrastructure can be complex, posing challenges for businesses in terms of cost, time, and technical expertise.

Private 5G Network Market Segmentation

By Component

Hardware

Software

Services

By Deployment Type

On-Premise

Cloud

By Frequency Band

Sub-6 GHz

mmWave

By Spectrum

Licensed

Unlicensed Or Shared

By Vertical

Banking

Financial Services And Insurance (BFSI)

Manufacturing

Energy And Utilities

Retail And E-commerce

Healthcare

Infrastructure

Transportation And Logistics

Aerospace And Defense

Media And Entertainment

Other Verticals

Key Companies Analysed

Samsung Electronics Co. Ltd

Affirmed Networks

Verizon Communications Inc

AT&T Inc

Dell Inc.

Huawei Technologies Co.

Ltd.

Vodafone Ltd.

Cisco Systems

Inc.

Qualcomm Technologies

Inc.

Oracle

Fujitsu

Hewlett Packard Enterprise Development LP

Telefonaktiebolaget LM Ericsson

Deutsche Telekom AG

Nokia Corporation

NEC Corporation

BT Group plc

ZTE Corporation

SK Telecom Co. Ltd

VMware Inc.

Commscope

Juniper Networks

Inc

T-Systems International GmbH

Ciena Corporation

Mavenir

Extreme Networks

AltioStar

Airspan Networks

Comba Telecom Systems Holdings Ltd.

Celona Inc.

Private 5G Network Market Analytics

The report employs rigorous tools, including Porter's Five Forces, value chain mapping, and scenario-based modeling, to assess supply–demand dynamics. Cross-sector influences from parent, derived, and substitute markets are evaluated to identify risks and opportunities. Trade and pricing analytics provide an up-to-date view of international flows, including leading exporters, importers, and regional price trends.

Macroeconomic indicators, policy frameworks such as carbon pricing and energy security strategies, and evolving consumer behavior are considered in forecasting scenarios. Recent deal flows, partnerships, and technology innovations are incorporated to assess their impact on future market performance.

Private 5G Network Market Competitive Intelligence

The competitive landscape is mapped through OG Analysis' proprietary frameworks, profiling leading companies with details on business models, product portfolios, financial performance, and strategic initiatives. Key developments such as mergers & acquisitions, technology collaborations, investment inflows, and regional expansions are analyzed for their competitive impact. The report also identifies emerging players and innovative startups contributing to market disruption.

Regional insights highlight the most promising investment destinations, regulatory landscapes, and evolving partnerships across energy and industrial corridors.

Countries Covered

North America — Private 5G Network market data and outlook to 2034

United States

Canada

Mexico

Europe — Private 5G Network market data and outlook to 2034

Germany

United Kingdom

France

Italy

Spain

BeNeLux

Russia

Sweden

Asia-Pacific — Private 5G Network market data and outlook to 2034

China

Japan

India

South Korea

Australia

Indonesia

Malaysia

Vietnam

Middle East and Africa — Private 5G Network market data and outlook to 2034

Saudi Arabia

South Africa

Iran

UAE

Egypt

South and Central America — Private 5G Network market data and outlook to 2034

Brazil

Argentina

Chile

Peru

** We can include data and analysis of additional countries on demand.*

Research Methodology

This study combines primary inputs from industry experts across the Private 5G Network value chain with secondary data from associations, government publications, trade databases, and company disclosures. Proprietary modeling techniques, including data triangulation, statistical correlation, and scenario planning, are applied to deliver reliable market sizing and forecasting.

Key Questions Addressed

What is the current and forecast market size of the Private 5G Network industry at global, regional, and country levels?

Which types, applications, and technologies present the highest growth potential?

How are supply chains adapting to geopolitical and economic shocks?

What role do policy frameworks, trade flows, and sustainability targets play in shaping demand?

Who are the leading players, and how are their strategies evolving in the face of global uncertainty?

Which regional “hotspots” and customer segments will outpace the market, and what go-to-market and partnership models best support entry and expansion?

Where are the most investable opportunities—across technology roadmaps, sustainability-linked innovation, and M&A—and what is the best segment to invest over the next 3–5 years?

Your Key Takeaways from the Private 5G Network Market Report

Global Private 5G Network market size and growth projections (CAGR), 2024-2034

Impact of Russia-Ukraine, Israel-Palestine, and Hamas conflicts on Private 5G Network trade, costs, and supply chains

Private 5G Network market size, share, and outlook across 5 regions and 27 countries, 2023-2034

Private 5G Network market size, CAGR, and market share of key products, applications, and end-user verticals, 2023-2034

Short- and long-term Private 5G Network market trends, drivers, restraints, and opportunities

Porter’s Five Forces analysis, technological developments, and Private 5G Network supply chain analysis

Private 5G Network trade analysis, Private 5G Network market price analysis, and Private 5G Network supply/demand dynamics

Profiles of 5 leading companies—overview, key strategies, financials, and products

Latest Private 5G Network market news and developments

Additional Support

With the purchase of this report, you will receive

An updated PDF report and an MS Excel data workbook containing all market tables and figures for easy analysis.

7-day post-sale analyst support for clarifications and in-scope supplementary data, ensuring the deliverable aligns precisely with your requirements.

Complimentary report update to incorporate the latest available data and the impact of recent market developments.

** The updated report will be delivered within 3 working days*

Contents

1. TABLE OF CONTENTS

- 1.1 List of Tables
- 1.2 List of Figures

2. GLOBAL PRIVATE 5G NETWORK MARKET SUMMARY, 2025

- 2.1 Private 5G Network Industry Overview
 - 2.1.1 Global Private 5G Network Market Revenues (In US\$ billion)
- 2.2 Private 5G Network Market Scope
- 2.3 Research Methodology

3. PRIVATE 5G NETWORK MARKET INSIGHTS, 2024-2034

- 3.1 Private 5G Network Market Drivers
- 3.2 Private 5G Network Market Restraints
- 3.3 Private 5G Network Market Opportunities
- 3.4 Private 5G Network Market Challenges
- 3.5 Tariff Impact on Global Private 5G Network Supply Chain Patterns

4. PRIVATE 5G NETWORK MARKET ANALYTICS

- 4.1 Private 5G Network Market Size and Share, Key Products, 2025 Vs 2034
- 4.2 Private 5G Network Market Size and Share, Dominant Applications, 2025 Vs 2034
- 4.3 Private 5G Network Market Size and Share, Leading End Uses, 2025 Vs 2034
- 4.4 Private 5G Network Market Size and Share, High Growth Countries, 2025 Vs 2034
- 4.5 Five Forces Analysis for Global Private 5G Network Market
 - 4.5.1 Private 5G Network Industry Attractiveness Index, 2025
 - 4.5.2 Private 5G Network Supplier Intelligence
 - 4.5.3 Private 5G Network Buyer Intelligence
 - 4.5.4 Private 5G Network Competition Intelligence
 - 4.5.5 Private 5G Network Product Alternatives and Substitutes Intelligence
 - 4.5.6 Private 5G Network Market Entry Intelligence

5. GLOBAL PRIVATE 5G NETWORK MARKET STATISTICS – INDUSTRY REVENUE, MARKET SHARE, GROWTH TRENDS AND FORECAST BY SEGMENTS, TO 2034

5.1 World Private 5G Network Market Size, Potential and Growth Outlook, 2024- 2034 (\$ billion)

5.1 Global Private 5G Network Sales Outlook and CAGR Growth By Component, 2024-2034 (\$ billion)

5.2 Global Private 5G Network Sales Outlook and CAGR Growth By Deployment Type, 2024- 2034 (\$ billion)

5.3 Global Private 5G Network Sales Outlook and CAGR Growth By Frequency Band, 2024- 2034 (\$ billion)

5.4 Global Private 5G Network Sales Outlook and CAGR Growth By Spectrum, 2024-2034 (\$ billion)

5.5 Global Private 5G Network Sales Outlook and CAGR Growth By Vertical, 2024-2034 (\$ billion)

5.6 Global Private 5G Network Market Sales Outlook and Growth by Region, 2024-2034 (\$ billion)

6. ASIA PACIFIC PRIVATE 5G NETWORK INDUSTRY STATISTICS – MARKET SIZE, SHARE, COMPETITION AND OUTLOOK

6.1 Asia Pacific Private 5G Network Market Insights, 2025

6.2 Asia Pacific Private 5G Network Market Revenue Forecast By Component, 2024-2034 (USD billion)

6.3 Asia Pacific Private 5G Network Market Revenue Forecast By Deployment Type, 2024- 2034 (USD billion)

6.4 Asia Pacific Private 5G Network Market Revenue Forecast By Frequency Band, 2024- 2034 (USD billion)

6.5 Asia Pacific Private 5G Network Market Revenue Forecast By Spectrum, 2024-2034 (USD billion)

6.6 Asia Pacific Private 5G Network Market Revenue Forecast By Vertical, 2024- 2034 (USD billion)

6.7 Asia Pacific Private 5G Network Market Revenue Forecast by Country, 2024- 2034 (USD billion)

6.7.1 China Private 5G Network Market Size, Opportunities, Growth 2024- 2034

6.7.2 India Private 5G Network Market Size, Opportunities, Growth 2024- 2034

6.7.3 Japan Private 5G Network Market Size, Opportunities, Growth 2024- 2034

6.7.4 Australia Private 5G Network Market Size, Opportunities, Growth 2024- 2034

7. EUROPE PRIVATE 5G NETWORK MARKET DATA, PENETRATION, AND BUSINESS PROSPECTS TO 2034

7.1 Europe Private 5G Network Market Key Findings, 2025

7.2 Europe Private 5G Network Market Size and Percentage Breakdown By Component, 2024- 2034 (USD billion)

7.3 Europe Private 5G Network Market Size and Percentage Breakdown By Deployment Type, 2024- 2034 (USD billion)

7.4 Europe Private 5G Network Market Size and Percentage Breakdown By Frequency Band, 2024- 2034 (USD billion)

7.5 Europe Private 5G Network Market Size and Percentage Breakdown By Spectrum, 2024- 2034 (USD billion)

7.6 Europe Private 5G Network Market Size and Percentage Breakdown By Vertical, 2024- 2034 (USD billion)

7.7 Europe Private 5G Network Market Size and Percentage Breakdown by Country, 2024- 2034 (USD billion)

7.7.1 Germany Private 5G Network Market Size, Trends, Growth Outlook to 2034

7.7.2 United Kingdom Private 5G Network Market Size, Trends, Growth Outlook to 2034

7.7.2 France Private 5G Network Market Size, Trends, Growth Outlook to 2034

7.7.2 Italy Private 5G Network Market Size, Trends, Growth Outlook to 2034

7.7.2 Spain Private 5G Network Market Size, Trends, Growth Outlook to 2034

8. NORTH AMERICA PRIVATE 5G NETWORK MARKET SIZE, GROWTH TRENDS, AND FUTURE PROSPECTS TO 2034

8.1 North America Snapshot, 2025

8.2 North America Private 5G Network Market Analysis and Outlook By Component, 2024- 2034 (\$ billion)

8.3 North America Private 5G Network Market Analysis and Outlook By Deployment Type, 2024- 2034 (\$ billion)

8.4 North America Private 5G Network Market Analysis and Outlook By Frequency Band, 2024- 2034 (\$ billion)

8.5 North America Private 5G Network Market Analysis and Outlook By Spectrum, 2024- 2034 (\$ billion)

8.6 North America Private 5G Network Market Analysis and Outlook By Vertical, 2024- 2034 (\$ billion)

8.7 North America Private 5G Network Market Analysis and Outlook by Country, 2024- 2034 (\$ billion)

8.7.1 United States Private 5G Network Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.7.1 Canada Private 5G Network Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.7.1 Mexico Private 5G Network Market Size, Share, Growth Trends and Forecast, 2024- 2034

9. SOUTH AND CENTRAL AMERICA PRIVATE 5G NETWORK MARKET DRIVERS, CHALLENGES, AND FUTURE PROSPECTS

9.1 Latin America Private 5G Network Market Data, 2025

9.2 Latin America Private 5G Network Market Future By Component, 2024- 2034 (\$ billion)

9.3 Latin America Private 5G Network Market Future By Deployment Type, 2024- 2034 (\$ billion)

9.4 Latin America Private 5G Network Market Future By Frequency Band, 2024- 2034 (\$ billion)

9.5 Latin America Private 5G Network Market Future By Spectrum, 2024- 2034 (\$ billion)

9.6 Latin America Private 5G Network Market Future By Vertical, 2024- 2034 (\$ billion)

9.7 Latin America Private 5G Network Market Future by Country, 2024- 2034 (\$ billion)

9.7.1 Brazil Private 5G Network Market Size, Share and Opportunities to 2034

9.7.2 Argentina Private 5G Network Market Size, Share and Opportunities to 2034

10. MIDDLE EAST AFRICA PRIVATE 5G NETWORK MARKET OUTLOOK AND GROWTH PROSPECTS

10.1 Middle East Africa Overview, 2025

10.2 Middle East Africa Private 5G Network Market Statistics By Component, 2024- 2034 (USD billion)

10.3 Middle East Africa Private 5G Network Market Statistics By Deployment Type, 2024- 2034 (USD billion)

10.4 Middle East Africa Private 5G Network Market Statistics By Frequency Band, 2024- 2034 (USD billion)

10.5 Middle East Africa Private 5G Network Market Statistics By Spectrum, 2024- 2034 (USD billion)

10.6 Middle East Africa Private 5G Network Market Statistics By Vertical, 2024- 2034 (USD billion)

10.7 Middle East Africa Private 5G Network Market Statistics by Country, 2024- 2034 (USD billion)

10.7.1 Middle East Private 5G Network Market Value, Trends, Growth Forecasts to

2034

10.7.2 Africa Private 5G Network Market Value, Trends, Growth Forecasts to 2034

11. PRIVATE 5G NETWORK MARKET STRUCTURE AND COMPETITIVE LANDSCAPE

11.1 Key Companies in Private 5G Network Industry

11.2 Private 5G Network Business Overview

11.3 Private 5G Network Product Portfolio Analysis

11.4 Financial Analysis

11.5 SWOT Analysis

12 APPENDIX

12.1 Global Private 5G Network Market Volume (Tons)

12.1 Global Private 5G Network Trade and Price Analysis

12.2 Private 5G Network Parent Market and Other Relevant Analysis

12.3 Publisher Expertise

12.2 Private 5G Network Industry Report Sources and Methodology

I would like to order

Product name: Private 5G Network Market Outlook 2025-2034: Market Share, and Growth Analysis By Component (Hardware, Software, Services), By Deployment Type (On-Premise, Cloud), By Frequency Band, By Spectrum, By Vertical

Product link: <https://marketpublishers.com/r/P82B6039E850EN.html>

Price: US\$ 3,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P82B6039E850EN.html>