

North America and Europe Open RAN Market to Reach USD 14.1 Billion by 2034, Growing at 32.33% CAGR

The North America and Europe Open RAN market is set to grow, fueled by 5G rollout, urbanization, and rising demand for flexible, cost-effective networks.

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EINPresswire.com/ -- □□□□□□
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The [North America and Europe Open Radio Access Network \(Open RAN\) market size](#) was USD 1.41 billion in 2024 and is expected to grow at a CAGR of 32.33% from 2025 to 2034. The major factors driving the demand for Open RAN in these markets are the rapid adoption of 5G networks, increasing smartphone usage, and urbanization trends. Open Radio Access Network (Open RAN) is a new, adaptable framework for mobile networks that breaks apart the conventional RAN components, allowing operators to combine and utilize hardware and software components from different sources. In contrast to traditional proprietary systems, Open RAN facilitates interoperability, enabling more innovation, cost savings, and scalability in the deployment of 4G and 5G

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Open RAN: Connecting the Dots for a Faster, Smarter Future.”

Polaris Market Research

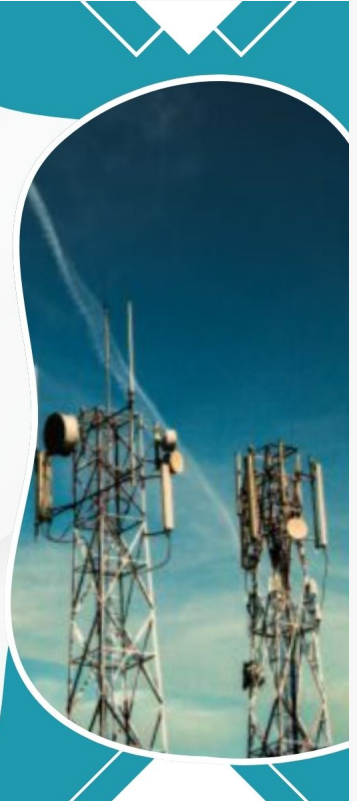
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MARKET RESEARCH

North America and Europe Open Radio Access Network (Open RAN) Market

North America and Europe open radio access network (Open RAN) refer to the regional deployment and adoption of open RAN technology.

AI Impact

- AI improves open RAN through real-time traffic management.
- AI helps in lowers operational expenses.
- AI helps in faster network planning and deployment.
- AI strengthens Open RAN with advanced threat detection.



North America and Europe Open RAN Market

networks. It creates an open environment in which operators can pick the optimal solutions for their requirements, promoting competition and diminishing vendor lock-in.

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- The growing demand for Open Radio Access Networks in North America and Europe is driven by the widespread adoption of 5G connections.
 - The hardware segment led the North America and Europe Open RAN market in 2024, with a 52.07% market share, driven by 5G rollouts and upgrades to existing infrastructure.
 - The enterprise segment is expected to grow at a CAGR of 43.06% from 2025 to 2034, driven by the rising use of private 5G networks in manufacturing, logistics, and healthcare for better efficiency, interoperability, and flexibility.
 - The frequency segment includes sub-6GHz, mmWave, and other bands, with sub-6GHz representing 84.68% of the revenue share in 2024.
 - North America accounted for 57.38% of the revenue share in 2024, driven by the growth of 5G networks and national security concerns.
 - The European region is anticipated to register a CAGR of 33.40% during 2025-2034, driven by the expansion of 5G infrastructure and European Union policies encouraging Open RAN adoption in order to advance digital sovereignty and minimize dependence on legacy telecom vendors.
- Open RAN is a key enabler for 5G networks and is expected to drive significant growth in the Open RAN market.
- AI is making network management more effective through the automation of processes, such as resource allocation and fault detection, in Open RAN.
 - It improves Open RAN performance by optimizing data traffic and boosting network reliability.
 - AI analytics enable operators to anticipate demand, allowing for proactive scaling of the network and minimizing downtime.
 - Real-time network performance is optimized by machine learning algorithms that lower operational expenses and enhance user experience.
 - AI-enabled security capabilities secure Open RAN by identifying possible threats and reducing vulnerabilities in the network.

Open RAN is a key enabler for 5G networks and is expected to drive significant growth in the Open RAN market.

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Smartphone Adoption: The rise in smartphone use across North America and Europe is increasing the demand for Open RAN. It provides cost-effective, interoperable 5G networks that improve spectrum efficiency, include automation, and offer advanced capabilities.

Urbanization: Fast-growing cities in North America and Europe, particularly in the U.S., Spain, and Germany, are driving the need for Open RAN to manage the increasing traffic from [smartphones](#), IoT devices, and 5G applications, while supporting smart city infrastructure and ensuring reliable connectivity.

Growing 5G Adoption: The deployment of 5G networks in North America and Europe is driving Open RAN adoption, with operators increasingly adopting more flexible and cost-conscious strategies to optimize network performance and accelerate 5G deployment.

Smart Cities Emergence: The emergence of smart cities in these regions is propelling Open RAN demand since it facilitates the handling of data traffic growth and ensures connectivity for connected infrastructure, including smart transportation, [smart city platforms](#), and surveillance networks.

Expanding 5G Adoption: The increasing adoption of 5G in North America and Europe is fueling demand for Open RAN, as it enables service providers to incorporate heterogeneous components from various vendors that can handle the thousands of small cells, MIMO antennas, and edge sites required to provide high-speed and low-latency 5G services.

Emerging IoT Ecosystems: As the Internet of Things (IoT) continues to expand across various sectors in North America and Europe, there is a growing demand for flexible and high-capacity networks. The fact that Open RAN can enable massive device connectivity and improve network performance makes it a perfect solution to manage the growing IoT environment.

Request for Sample Report

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Request for Sample Report

North America and Europe Open RAN Market Share

In 2024, the hardware segment accounted for 52.07% of the North America and Europe Open RAN market share, led by 5G rollouts and the modernization of legacy networks. Operators have made major investments in hardware with 5G expansion in the region.

Moreover, the software segment is anticipated to expand with a CAGR of 33.73% during the forecast period of 2025-2034, as it will enhance network agility and efficiency. It facilitates intelligent traffic management and smart maintenance by permitting the operators to integrate machine learning and artificial intelligence.

Revenue Share by Segment

In 2024, the revenue share was led by the public networks segment, with 71.30%, driven by considerable investment in open and disaggregated RAN solutions. Governments and regulators have compelled operators to adopt Open RAN for public networks to help reduce deployment costs and avoid vendor lock-in.

The enterprise market is projected to expand at a CAGR of 43.06% from 2025 to 2034, driven by the widespread adoption of private 5G networks in various industries. Open RAN is being increasingly adopted by manufacturing, logistics, and healthcare industries to increase efficiency, interoperability, and flexibility.

Revenue Share by Frequency Band

The sub-6GHz band accounted for 84.68% of the revenue share in 2024, owing to its balanced capacity and coverage. The widespread adoption of 4G networks within the region, along with increased demand for ubiquitous mobile broadband, compelled operators to adopt Open RAN based on the sub-6GHz frequency for enhanced coverage and higher internet speeds.

Regional Revenue Share

North America: North America generated 57.38% of the revenue in 2024, led by growth in 5G, national security requirements, and government programs. The rising use of 5G and IoT devices is compelling operators to use Open RAN, lessening their reliance on conventional vendors and increasing market leadership through trials and implementation investments.

Europe: Europe is anticipated to record a CAGR of 33.40% between 2025 and 2034, led by 5G infrastructure growth, Open RAN acceptance with EU policies supporting the adoption, and operators leaning towards partnering. Emphasis on energy-efficient networks, smartphone penetration, and urbanization is also propelling market growth.

Regional Market Outlook

The North America and Europe Open RAN market is growing more competitive, with telecommunications giants and technology companies spearheading wider use. Telcos in the U.S. and Canada are collaborating with vendors to build open, flexible networks, supported by government initiatives aimed at reducing dependence on large suppliers. In Europe, regional carrier collaboration and EU initiatives are stimulating 5G innovation. Both territories are committed to providing cost-effective, secure, and scalable RAN systems to meet increasing connectivity needs. Important industry leaders include:

- Ericsson
- Fujitsu
- Mavenir
- NEC Corporation
- Nokia
- Parallel Wireless
- Radisys
- Rakuten Symphony
- Samsung

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□□□□□□□□ □□□□: Ericsson announced its partnership with EE. The company stated that the partnership will focus on the deployment of Ericsson's Advanced RAN Coordination (ARC) technology. The ARC technology will allow nearby 5G sites to share capacity.

□□□□□□□□ □□□□: AT&T announced the deployment of Mavenir radios for its Open RAN network. The company revealed that the radios will help it enhance its capacity and coverage of the 5G network.

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- Hardware
- Radio
- Units Centralized Units/Distributed Units
- Others
- Software
- RAN Intelligent Controller

- Network Orchestration & Management Software
- Others
- Services
- Network Planning & Optimization
- Deployment & Integration
- Support & Maintenance

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- Band Sub-6GHz
- mmWave
- Others

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- Carrier-Owned Networks
- Neutral Host Networks
- Enterprise-Owned Networks

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- Brownfield
- Greenfield

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- LTE ORU
- 5G ORU
- Public / MNO Networks
- Private 5G (P5G)
- Others

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- Public Networks
- Industrial
- Enterprise
- Others

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- North America
- US

- Canada
- Mexico
- Europe
- Germany
- France
- UK
- Italy
- Spain
- Netherlands
- Russia
- Rest of Europe

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Ans: The market was worth USD 1410.00 million in 2024 and is anticipated to reach USD 27,153.44 million by 2034.

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Ans: The market will grow at a CAGR of 32.33% over the forecast period.

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Ans: The report offers a comprehensive understanding of the North American and European Open RAN markets, enabling you to identify growth opportunities and recognize key market trends. It supplies you with data-driven insights to inform your decisions and remain competitive.

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Ans: We provide accurate and trustworthy market research to assist you in making informed choices. Our tailored solutions are designed to meet your specific business needs.

Thank you for reading our report on the North America and Europe Open RAN market. For more tailored information, we provide chapter-wise and country-wise reports, offering extensive analysis for major markets such as North America, Europe, and the Asia Pacific, to guide your strategic choices.

At Polaris Market Research, we provide actionable market intelligence that enables companies to adapt to industry changes, identify new opportunities, and make informed decisions. By combining good data with a clear vision of market trends, we help firms tackle challenges efficiently, fine-tune their strategies, and stay competitive. Our goal is to deliver actionable insights that foster growth and prosperity in a dynamic market environment.

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