

Open Radio Access Network Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Deployment (Private, Public), By Network (2G, 3G, 4G, 5G), By Component (Hardware, Software, Services), By Frequency (Sub-6 GHz, mmWave), By End Use (Residential, Commercial, Industrial), By Region and By Competition, 2019-2029F

<https://marketpublishers.com/r/OF72DDC340A9EN.html>

Date: June 2024

Pages: 185

Price: US\$ 4,900.00 (Single User License)

ID: OF72DDC340A9EN

Abstracts

Global Open Radio Access Network Market was valued at USD 1.78 Billion in 2023 and is anticipated to project robust growth in the forecast period with a CAGR 67.71% through 2029. The Global Open Radio Access Network (O-RAN) market is experiencing robust growth as the telecommunications industry undergoes a transformative shift toward more open and interoperable network architectures. O-RAN, characterized by its disaggregated approach, allows telecom operators to deploy flexible and customizable radio access networks by selecting best-of-breed components from different vendors. The market is particularly driven by the surge in 5G deployments, where O-RAN's agility and scalability play a pivotal role in accommodating the diverse requirements of enhanced mobile broadband, massive machine-type communication, and ultra-reliable low-latency communication. The software segment dominates the O-RAN market, reflecting the industry's emphasis on virtualization, cloud-native architectures, and standardized software interfaces.

O-RAN's rise is marked by collaborations among industry stakeholders, with organizations like the O-RAN Alliance and Telecom Infra Project actively contributing to the development of open standards. This collaborative effort ensures

interoperability, fosters innovation, and accelerates the adoption of O-RAN solutions globally. As operators seek to optimize network infrastructure, reduce costs, and deliver innovative services, O-RAN emerges as a pivotal technology shaping the future of telecommunications, offering a pathway for operators to build agile, efficient, and future-proof radio access networks.

Key Market Drivers

Flexibility and Interoperability for Telecom Networks

A key driver propelling the growth of the global O-RAN market is the inherent flexibility and interoperability that O-RAN architectures bring to telecom networks. Traditional radio access networks (RAN) have long been characterized by proprietary, integrated solutions from single vendors, limiting the ability of operators to mix and match components based on their specific needs. O-RAN, in contrast, introduces a disaggregated approach, decoupling hardware and software elements and fostering an ecosystem where different vendors' components can seamlessly work together.

This flexibility enables telecom operators to choose best-of-breed solutions for different parts of the network, optimizing performance and cost-effectiveness. By promoting interoperability standards, O-RAN enhances the adaptability of telecom networks, allowing for easier integration of new technologies and services. The drive towards flexibility and interoperability positions O-RAN as a transformative force in the telecommunications industry, offering operators the agility needed to keep pace with evolving technologies and user demands.

Cost Reduction and Operational Efficiency

Cost reduction and operational efficiency stand out as significant drivers fueling the adoption of O-RAN in the global market. The disaggregated nature of O-RAN allows telecom operators to reduce capital expenditures and operational costs compared to traditional, integrated RAN solutions. By selecting components from different vendors based on performance and cost considerations, operators can optimize their network infrastructure investments.

O-RAN's open architecture also enables the use of commercial off-the-shelf (COTS) hardware, contributing to further cost savings. Additionally, the deployment of virtualized and cloud-native architectures in O-RAN facilitates more efficient resource utilization and management, streamlining network operations. As telecom operators

seek to maximize their return on investment and navigate the economic considerations of network deployment and maintenance, the cost reduction and operational efficiency offered by O-RAN emerge as compelling drivers for widespread adoption.

Evolution of 5G and Beyond

The global transition to 5G and the anticipation of future communication technologies serve as powerful drivers propelling the growth of the O-RAN market. O-RAN architectures are well-suited to support the demands of 5G networks and beyond by providing the flexibility needed to accommodate diverse use cases, from enhanced mobile broadband to massive machine-type communication and ultra-reliable low-latency communication.

The modular and open design of O-RAN facilitates the integration of new technologies and standards, allowing operators to evolve their networks incrementally. As the telecommunications industry increasingly embraces the transformative potential of 5G, O-RAN emerges as a key enabler, providing operators with the agility to deploy and manage advanced network capabilities efficiently. The anticipation of future technological advancements further drives the adoption of O-RAN as a forward-looking solution for building agile and future-proof communication networks.

Industry Collaboration and Ecosystem Development

A significant driver in the global O-RAN market is the collaborative approach and ecosystem development fostered by industry partnerships and alliances. Organizations such as the O-RAN Alliance and Telecom Infra Project (TIP) play pivotal roles in bringing together telecom operators, vendors, and technology innovators to collaborate on defining open standards and driving innovation.

The shared goal of creating an open, interoperable ecosystem encourages knowledge exchange and accelerates the development and deployment of O-RAN solutions. Collaboration enables stakeholders to collectively address technical challenges, share best practices, and establish a common vision for the future of radio access networks. The active involvement of industry players in building a robust O-RAN ecosystem contributes to its growth and ensures that the market evolves with a focus on interoperability, scalability, and innovation.

Accelerated Demand for Edge Computing

The growing demand for edge computing capabilities is a key driver influencing the adoption of O-RAN in the global market. O-RAN's architecture, with distributed components that can be deployed at the network edge, aligns well with the requirements of edge computing. Edge computing reduces latency by processing data closer to the source, making it essential for applications such as augmented reality, autonomous vehicles, and the Internet of Things (IoT).

O-RAN's ability to support edge deployments enhances the overall efficiency of edge computing, offering telecom operators the flexibility to deploy and manage computing resources closer to end-users and devices. As edge computing gains prominence in various industries, O-RAN becomes a strategic enabler, positioning itself as a driver of innovation for applications that rely on low-latency and high-throughput communication.

Key Market Challenges

Interoperability and Integration Complexities

One of the primary challenges facing the global O-RAN market is the complexity associated with achieving interoperability and seamless integration of diverse network elements. O-RAN's disaggregated architecture promotes the use of components from different vendors, fostering flexibility but also introducing the challenge of ensuring that these components work cohesively within the network.

Operators face the task of integrating hardware and software components from various vendors, each with its specifications and interfaces. Interoperability issues can arise at multiple levels, including the radio unit (RU), distributed unit (DU), and centralized unit (CU). Addressing these complexities requires standardized interfaces and protocols, and industry organizations such as the O-RAN Alliance are actively working on defining and refining these standards. However, achieving true interoperability remains a persistent challenge as the O-RAN ecosystem continues to evolve.

Security Concerns in Open Environments

Security concerns pose a significant challenge to the widespread adoption of O-RAN solutions. The disaggregated nature of O-RAN introduces new attack vectors and potential vulnerabilities that need to be carefully addressed to ensure the security and integrity of telecommunications networks. The open and modular design of O-RAN,

while fostering innovation, also creates potential entry points for malicious actors.

Securing communication between O-RAN components, authenticating entities within the network, and protecting against cyber threats are crucial aspects that demand careful consideration. As O-RAN becomes integral to 5G and beyond, the industry is actively working on defining and implementing security standards specific to O-RAN. However, maintaining robust security in open environments continues to be a dynamic challenge that requires ongoing vigilance and adaptation to emerging threats.

Performance Optimization and Network Efficiency

While O-RAN promises increased flexibility and cost-effectiveness, optimizing the performance of disaggregated networks poses a substantial challenge. Operators must carefully manage the distribution of computing resources, minimize latency, and optimize data traffic flows across the disaggregated elements to ensure efficient network performance.

Achieving performance optimization becomes particularly crucial as networks scale to support a growing number of devices and services. The distributed nature of O-RAN, with components deployed at the edge and core of the network, necessitates sophisticated management and orchestration strategies. Operators are actively exploring solutions that leverage technologies such as artificial intelligence (AI) and machine learning (ML) to dynamically adapt and optimize network resources based on real-time demands.

Cost and Resource Implications of Migration

The transition to O-RAN architectures involves significant upfront costs and resource implications for telecom operators. While the long-term benefits in terms of flexibility and operational efficiency are evident, the initial investment required for deploying new hardware, updating software, and retraining personnel can be substantial.

Operators must carefully plan and manage the migration process to minimize disruption to existing services and ensure a smooth transition to O-RAN. The coexistence of legacy infrastructure with O-RAN components during the migration phase introduces additional complexities. Striking the right balance between leveraging existing investments and embracing the benefits of O-RAN without overburdening operational expenses is a delicate challenge that operators must navigate.

Regulatory and Compliance Issues

The global O-RAN market faces regulatory and compliance challenges stemming from the evolving nature of open and disaggregated network architectures. Regulatory frameworks that were initially designed for traditional, integrated network solutions may not adequately address the nuances of O-RAN deployments.

Telecom regulators and policymakers are working to adapt regulations to accommodate the unique characteristics of O-RAN while ensuring fair competition and user protection. Harmonizing standards and ensuring compliance with evolving regulatory requirements across different regions poses a challenge for industry stakeholders. Navigating the regulatory landscape is crucial for the successful deployment and expansion of O-RAN solutions globally.

Key Market Trends

Accelerated Deployment and Adoption of O-RAN Technologies

The Open Radio Access Network (O-RAN) market is experiencing a significant trend with the accelerated deployment and adoption of O-RAN technologies. O-RAN, a disaggregated approach to radio access networks, is gaining traction as telecom operators seek more flexible and cost-effective solutions. Traditional radio access networks are characterized by proprietary, integrated systems from a single vendor, limiting flexibility and hindering innovation. O-RAN, on the other hand, promotes interoperability and standardization, allowing operators to mix and match components from different vendors.

The shift towards O-RAN is driven by the desire to break vendor lock-in, reduce costs, and increase network agility. Telecom operators are increasingly embracing O-RAN architectures to deploy open and interoperable network elements, enabling them to choose best-of-breed components for their specific needs. This trend is reshaping the telecommunications landscape, fostering a more competitive and innovative ecosystem.

Integration of Artificial Intelligence (AI) and Machine Learning (ML) in O-RAN

Another notable trend in the global O-RAN market is the integration of artificial intelligence (AI) and machine learning (ML) technologies. As networks become more

complex and dynamic, operators are turning to AI and ML to optimize network performance, automate management tasks, and enhance overall efficiency.

AI and ML algorithms are being applied to various aspects of O-RAN, including resource allocation, network optimization, predictive maintenance, and anomaly detection. By leveraging these technologies, telecom operators can proactively address issues, improve network reliability, and deliver better quality of service to end-users. The integration of AI and ML in O-RAN represents a strategic move towards more intelligent and autonomous network management, aligning with the industry's evolution towards 5G and beyond.

Rising Importance of Virtualization and Cloud-Native Architectures

Virtualization and cloud-native architectures are playing a crucial role in shaping the O-RAN market landscape. O-RAN leverages virtualization to decouple hardware and software components, allowing for more flexible and scalable deployments. Cloud-native architectures enable the development and deployment of network functions as microservices, fostering agility and scalability.

Telecom operators are increasingly embracing virtualized and cloud-native O-RAN solutions to realize the benefits of reduced capital expenditures, improved resource utilization, and faster time-to-market for new services. The shift towards cloud-native O-RAN architectures is aligned with broader industry trends towards cloudification and the adoption of edge computing, enabling operators to efficiently deploy and manage network functions in distributed environments.

Ongoing Standardization Efforts and Collaborations

Standardization efforts and industry collaborations are pivotal trends in the global O-RAN market. To ensure interoperability and widespread adoption, industry stakeholders are actively working on defining and refining O-RAN standards. Organizations such as the O-RAN Alliance and Telecom Infra Project (TIP) are leading the way in developing open standards that facilitate the integration of O-RAN components from different vendors.

Collaborations between telecom operators, vendors, and technology organizations are fostering innovation and driving the evolution of O-RAN. Partnerships and alliances are instrumental in addressing technical challenges, promoting best practices, and accelerating the development and deployment of O-RAN solutions. The industry's

commitment to standardization and collaboration underscores the importance of creating a robust and interoperable ecosystem that benefits all stakeholders.

Security Considerations and Solutions in O-RAN Deployments

As O-RAN deployments gain momentum, the industry is placing an increased focus on addressing security considerations. The disaggregated nature of O-RAN introduces new challenges and potential vulnerabilities that need to be addressed to ensure the integrity and security of telecommunications networks.

Security measures in O-RAN deployments encompass areas such as secure communication between network elements, authentication mechanisms, and protection against cyber threats. The industry is actively working on defining and implementing security standards specific to O-RAN to mitigate risks and build trust among operators and end-users. As O-RAN continues to evolve, ongoing efforts to enhance security will remain a critical trend, ensuring the resilience and reliability of open and disaggregated radio access networks.

Segmental Insights

Deployment Insights

Public segment dominates in the global open radio access network market in 2023. Public deployments of O-RAN offer several advantages that contribute to their dominance in the market. They align with the principles of openness and interoperability, enabling operators to select best-of-breed components from different vendors. This flexibility is especially valuable in dynamic and competitive telecom markets, allowing operators to customize their networks according to specific performance requirements and cost considerations.

Public O-RAN deployments promote resource efficiency by enabling shared infrastructure among multiple operators. This collaborative model allows telecom operators to pool resources, including radio units (RUs), distributed units (DUs), and centralized units (CUs), optimizing the use of spectrum and minimizing capital expenditures. Shared infrastructure also facilitates faster and more cost-effective network deployments, particularly in densely populated urban areas where infrastructure sharing can lead to reduced site acquisition costs and accelerated time-to-market for new services.

The public deployment model aligns well with the evolving landscape of 5G networks. As operators globally transition to 5G and explore the diverse use cases it enables, public O-RAN deployments offer a scalable and agile solution to support the demands of enhanced mobile broadband, massive machine-type communication, and ultra-reliable low-latency communication.

The public deployment segment's dominance is underscored by the collaborative efforts of industry alliances and partnerships. Telecom operators, infrastructure vendors, and technology providers are actively participating in initiatives such as the O-RAN Alliance and Telecom Infra Project (TIP) to establish common standards, drive innovation, and promote interoperability in public O-RAN deployments.

While public deployments currently dominate, it's essential to note that private deployments of O-RAN are also gaining traction, especially in specific enterprise scenarios. Private O-RAN deployments allow enterprises to have dedicated and customized networks, providing greater control over network resources and security. Industries such as manufacturing, logistics, and utilities are exploring private O-RAN deployments to address specific connectivity needs, enhance automation, and enable low-latency applications critical to their operations.

Network Insights

5G segment dominates in the global open radio access network market in 2023. The primary driver behind 5G's dominance in the O-RAN market is the industry's rapid and widespread transition to this advanced cellular technology. 5G networks promise significantly higher data speeds, lower latency, and increased connectivity, unlocking a multitude of possibilities for consumers, businesses, and industries. As operators worldwide race to deploy and expand their 5G networks, O-RAN emerges as a pivotal enabler, providing the necessary flexibility and scalability to accommodate the diverse use cases and demanding requirements of 5G services.

The unique characteristics of 5G, such as enhanced mobile broadband, massive machine-type communication, and ultra-reliable low-latency communication, align seamlessly with the principles of openness and interoperability championed by O-RAN. The disaggregated nature of O-RAN architectures allows operators to optimize their 5G networks by selecting and integrating best-of-breed components from various vendors, fostering an ecosystem that promotes innovation and competition.

The global industry's concerted efforts to advance 5G deployments have propelled O-

O-RAN is in the spotlight as an instrumental technology. The flexibility inherent in O-RAN architectures enables operators to deploy 5G networks more efficiently, adapt to evolving standards, and accelerate the rollout of new services. The synergy between 5G and O-RAN is particularly evident in addressing the challenges posed by the increasing demand for higher data rates, low-latency applications, and the proliferation of connected devices. The dominance of 5G in the O-RAN market is further underscored by the collaborative initiatives and alliances within the industry. Organizations such as the O-RAN Alliance and Telecom Infra Project (TIP) actively engage in defining standards and specifications that facilitate the integration of 5G technologies within open and disaggregated network architectures. These collaborative efforts contribute to the ongoing evolution of O-RAN, ensuring that it remains at the forefront of supporting 5G deployments globally.

Regional Insights

North America dominates the Global Open Radio Access Network Market in 2023. North America has emerged as a dominant force in the Global Open Radio Access Network (O-RAN) market for several compelling reasons. One of the primary factors contributing to North America's dominance is the region's robust and advanced telecommunications infrastructure. The United States, in particular, is home to some of the world's leading telecom operators, technology companies, and research institutions that actively contribute to the development and deployment of O-RAN solutions. North America has been at the forefront of early 5G deployments, and the transition to 5G networks aligns closely with the principles of O-RAN. The region's proactive approach to embracing next-generation communication technologies positions it as a natural leader in the O-RAN market. Telecom operators in North America are keen on adopting O-RAN architectures to enhance network flexibility, reduce costs, and support the diverse requirements of 5G services.

In addition to technological leadership, North America benefits from a vibrant ecosystem of innovative companies and startups specializing in network technologies. This ecosystem fosters a culture of collaboration and rapid innovation, facilitating the development of O-RAN solutions and contributing to the region's dominance in the market. The presence of leading technology hubs, such as Silicon Valley, further accelerates the pace of O-RAN innovation and deployment.

Regulatory initiatives in North America have been supportive of open and interoperable network architectures. Policies promoting fair competition, standardization, and the adoption of open standards have created an environment conducive to the growth of

O-RAN. Regulatory frameworks that encourage the integration of diverse network components from different vendors align well with the principles of O-RAN, allowing for a more competitive and dynamic marketplace. Strategic collaborations and partnerships between telecom operators, technology providers, and research institutions in North America have played a crucial role in advancing O-RAN solutions. These collaborations drive innovation, address technical challenges, and contribute to the development of standardized interfaces and protocols that enhance interoperability.

Key Market Players

Huawei Technologies Co., Ltd.

Telefonaktiebolaget LM Ericsson

Nokia Corporation

ZTE Corporation

Samsung Electronics Co., Ltd.

NEC Corporation

Cisco Systems, Inc.

Qualcomm Technologies, Inc.

Intel Corporation

Fujitsu Limited

Report Scope:

In this report, the Global Open Radio Access Network Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Open Radio Access Network Market, By Deployment:

Private

Public

Open Radio Access Network Market, By Network:

2G

3G

4G

5G

Open Radio Access Network Market, By Component:

Hardware

Software

Services

Open Radio Access Network Market, By Frequency:

Sub-6 GHz

mmWave

Open Radio Access Network Market, By End Use:

Residential

Commercial

Industrial

Open Radio Access Network Market, By Region:

North America

United States

Canada

Mexico

Europe

Germany

France

United Kingdom

Italy

Spain

South America

Brazil

Argentina

Colombia

Asia-Pacific

China

India

%II%Japan

%II%South Korea

%II%Australia

Middle East & Africa

%II%Saudi Arabia

%II%UAE

%II%South Africa

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Open Radi%II%Access Network Market.

Available Customizations:

Global Open Radi%II%Access Network Market report with the given market data, Tech Sci Research offers customizations according t%II%a company's specific needs. The following customization options are available for the report:

Company Information

%II%Detailed analysis and profiling of additional market players (up t%II%five).

Contents

1. SERVICE OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Baseline Methodology
- 2.2. Key Industry Partners
- 2.3. Major Association and Secondary Sources
- 2.4. Forecasting Methodology
- 2.5. Data Triangulation & Validation
- 2.6. Assumptions and Limitations

3. EXECUTIVE SUMMARY

4. IMPACT OF COVID-19 ON GLOBAL OPEN RADIO ACCESS NETWORK MARKET

5. VOICE OF CUSTOMER

6. GLOBAL OPEN RADIO ACCESS NETWORK MARKET OVERVIEW

7. GLOBAL OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

- 7.1. Market Size & Forecast
 - 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Deployment (Private, Public)
 - 7.2.2. By Network (2G, 3G, 4G, 5G)
 - 7.2.3. By Component (Hardware, Software, Services)
 - 7.2.4. By Frequency (Sub-6 GHz, mmWave)
 - 7.2.5. By End Use (Residential, Commercial, Industrial)
 - 7.2.6. By Region (North America, Europe, South America, Middle East & Africa, Asia Pacific)

7.3. By Company (2023)

7.4. Market Map

8. NORTH AMERICA OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

8.2.1. By Deployment

8.2.2. By Network

8.2.3. By Component

8.2.4. By Frequency

8.2.5. By End Use

8.2.6. By Country

8.3. North America: Country Analysis

8.3.1. United States Open Radio Access Network Market Outlook

8.3.1.1. Market Size & Forecast

8.3.1.1.1. By Value

8.3.1.2. Market Share & Forecast

8.3.1.2.1. By Deployment

8.3.1.2.2. By Network

8.3.1.2.3. By Component

8.3.1.2.4. By Frequency

8.3.1.2.5. By End Use

8.3.2. Canada Open Radio Access Network Market Outlook

8.3.2.1. Market Size & Forecast

8.3.2.1.1. By Value

8.3.2.2. Market Share & Forecast

8.3.2.2.1. By Deployment

8.3.2.2.2. By Network

8.3.2.2.3. By Component

8.3.2.2.4. By Frequency

8.3.2.2.5. By End Use

8.3.3. Mexico Open Radio Access Network Market Outlook

8.3.3.1. Market Size & Forecast

8.3.3.1.1. By Value

8.3.3.2. Market Share & Forecast

8.3.3.2.1. By Deployment

8.3.3.2.2. By Network

- 8.3.3.2.3. By Component
- 8.3.3.2.4. By Frequency
- 8.3.3.2.5. By End Use

9. EUROPE OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

9.1. Market Size & Forecast

- 9.1.1. By Value

9.2. Market Share & Forecast

- 9.2.1. By Deployment
- 9.2.2. By Network
- 9.2.3. By Component
- 9.2.4. By Frequency
- 9.2.5. By End Use
- 9.2.6. By Country

9.3. Europe: Country Analysis

9.3.1. Germany Open Radio Access Network Market Outlook

- 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
- 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Deployment
 - 9.3.1.2.2. By Network
 - 9.3.1.2.3. By Component
 - 9.3.1.2.4. By Frequency
 - 9.3.1.2.5. By End Use

9.3.2. France Open Radio Access Network Market Outlook

- 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
- 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Deployment
 - 9.3.2.2.2. By Network
 - 9.3.2.2.3. By Component
 - 9.3.2.2.4. By Frequency
 - 9.3.2.2.5. By End Use

9.3.3. United Kingdom Open Radio Access Network Market Outlook

- 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
- 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Deployment

- 9.3.3.2.2. By Network
- 9.3.3.2.3. By Component
- 9.3.3.2.4. By Frequency
- 9.3.3.2.5. By End Use
- 9.3.4. Italy Open Radio Access Network Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Deployment
 - 9.3.4.2.2. By Network
 - 9.3.4.2.3. By Component
 - 9.3.4.2.4. By Frequency
 - 9.3.4.2.5. By End Use
- 9.3.5. Spain Open Radio Access Network Market Outlook
 - 9.3.5.1. Market Size & Forecast
 - 9.3.5.1.1. By Value
 - 9.3.5.2. Market Share & Forecast
 - 9.3.5.2.1. By Deployment
 - 9.3.5.2.2. By Network
 - 9.3.5.2.3. By Component
 - 9.3.5.2.4. By Frequency
 - 9.3.5.2.5. By End Use

10. SOUTH AMERICA OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Deployment
 - 10.2.2. By Network
 - 10.2.3. By Component
 - 10.2.4. By Frequency
 - 10.2.5. By End Use
 - 10.2.6. By Country
- 10.3. South America: Country Analysis
 - 10.3.1. Brazil Open Radio Access Network Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast

- 10.3.1.2.1. By Deployment
- 10.3.1.2.2. By Network
- 10.3.1.2.3. By Component
- 10.3.1.2.4. By Frequency
- 10.3.1.2.5. By End Use
- 10.3.2. Colombia Open Radio Access Network Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Deployment
 - 10.3.2.2.2. By Network
 - 10.3.2.2.3. By Component
 - 10.3.2.2.4. By Frequency
 - 10.3.2.2.5. By End Use
- 10.3.3. Argentina Open Radio Access Network Market Outlook
 - 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
 - 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Deployment
 - 10.3.3.2.2. By Network
 - 10.3.3.2.3. By Component
 - 10.3.3.2.4. By Frequency
 - 10.3.3.2.5. By End Use

11. MIDDLE EAST & AFRICA OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

- 11.1. Market Size & Forecast
 - 11.1.1. By Value
- 11.2. Market Share & Forecast
 - 11.2.1. By Deployment
 - 11.2.2. By Network
 - 11.2.3. By Component
 - 11.2.4. By Frequency
 - 11.2.5. By End Use
 - 11.2.6. By Country
- 11.3. Middle East & Africa: Country Analysis
 - 11.3.1. Saudi Arabia Open Radio Access Network Market Outlook
 - 11.3.1.1. Market Size & Forecast

- 11.3.1.1.1. By Value
- 11.3.1.2. Market Share & Forecast
 - 11.3.1.2.1. By Deployment
 - 11.3.1.2.2. By Network
 - 11.3.1.2.3. By Component
 - 11.3.1.2.4. By Frequency
 - 11.3.1.2.5. By End Use
- 11.3.2. UAE Open Radio Access Network Market Outlook
 - 11.3.2.1. Market Size & Forecast
 - 11.3.2.1.1. By Value
 - 11.3.2.2. Market Share & Forecast
 - 11.3.2.2.1. By Deployment
 - 11.3.2.2.2. By Network
 - 11.3.2.2.3. By Component
 - 11.3.2.2.4. By Frequency
 - 11.3.2.2.5. By End Use
- 11.3.3. South Africa Open Radio Access Network Market Outlook
 - 11.3.3.1. Market Size & Forecast
 - 11.3.3.1.1. By Value
 - 11.3.3.2. Market Share & Forecast
 - 11.3.3.2.1. By Deployment
 - 11.3.3.2.2. By Network
 - 11.3.3.2.3. By Component
 - 11.3.3.2.4. By Frequency
 - 11.3.3.2.5. By End Use

12. ASIA PACIFIC OPEN RADIO ACCESS NETWORK MARKET OUTLOOK

- 12.1. Market Size & Forecast
 - 12.1.1. By Value
- 12.2. Market Share & Forecast
 - 12.2.1. By Deployment
 - 12.2.2. By Network
 - 12.2.3. By Component
 - 12.2.4. By Frequency
 - 12.2.5. By End Use
 - 12.2.6. By Country
- 12.3. Asia Pacific: Country Analysis
 - 12.3.1. China Open Radio Access Network Market Outlook

- 12.3.1.1. Market Size & Forecast
 - 12.3.1.1.1. By Value
- 12.3.1.2. Market Share & Forecast
 - 12.3.1.2.1. By Deployment
 - 12.3.1.2.2. By Network
 - 12.3.1.2.3. By Component
 - 12.3.1.2.4. By Frequency
 - 12.3.1.2.5. By End Use
- 12.3.2. India Open Radio Access Network Market Outlook
 - 12.3.2.1. Market Size & Forecast
 - 12.3.2.1.1. By Value
 - 12.3.2.2. Market Share & Forecast
 - 12.3.2.2.1. By Deployment
 - 12.3.2.2.2. By Network
 - 12.3.2.2.3. By Component
 - 12.3.2.2.4. By Frequency
 - 12.3.2.2.5. By End Use
- 12.3.3. Japan Open Radio Access Network Market Outlook
 - 12.3.3.1. Market Size & Forecast
 - 12.3.3.1.1. By Value
 - 12.3.3.2. Market Share & Forecast
 - 12.3.3.2.1. By Deployment
 - 12.3.3.2.2. By Network
 - 12.3.3.2.3. By Component
 - 12.3.3.2.4. By Frequency
 - 12.3.3.2.5. By End Use
- 12.3.4. South Korea Open Radio Access Network Market Outlook
 - 12.3.4.1. Market Size & Forecast
 - 12.3.4.1.1. By Value
 - 12.3.4.2. Market Share & Forecast
 - 12.3.4.2.1. By Deployment
 - 12.3.4.2.2. By Network
 - 12.3.4.2.3. By Component
 - 12.3.4.2.4. By Frequency
 - 12.3.4.2.5. By End Use
- 12.3.5. Australia Open Radio Access Network Market Outlook
 - 12.3.5.1. Market Size & Forecast
 - 12.3.5.1.1. By Value
 - 12.3.5.2. Market Share & Forecast

- 12.3.5.2.1. By Deployment
- 12.3.5.2.2. By Network
- 12.3.5.2.3. By Component
- 12.3.5.2.4. By Frequency
- 12.3.5.2.5. By End Use

13. MARKET DYNAMICS

- 13.1. Drivers
- 13.2. Challenges

14. MARKET TRENDS AND DEVELOPMENTS

15. COMPANY PROFILES

- 15.1. Huawei Technologies Co., Ltd.
 - 15.1.1. Business Overview
 - 15.1.2. Key Revenue and Financials
 - 15.1.3. Recent Developments
 - 15.1.4. Key Personnel
 - 15.1.5. Key Product/Services Offered
- 15.2. Telefonaktiebolaget LM Ericsson
 - 15.2.1. Business Overview
 - 15.2.2. Key Revenue and Financials
 - 15.2.3. Recent Developments
 - 15.2.4. Key Personnel
 - 15.2.5. Key Product/Services Offered
- 15.3. Nokia Corporation
 - 15.3.1. Business Overview
 - 15.3.2. Key Revenue and Financials
 - 15.3.3. Recent Developments
 - 15.3.4. Key Personnel
 - 15.3.5. Key Product/Services Offered
- 15.4. ZTE Corporation
 - 15.4.1. Business Overview
 - 15.4.2. Key Revenue and Financials
 - 15.4.3. Recent Developments
 - 15.4.4. Key Personnel
 - 15.4.5. Key Product/Services Offered

15.5. Samsung Electronics Co., Ltd.

- 15.5.1. Business Overview
- 15.5.2. Key Revenue and Financials
- 15.5.3. Recent Developments
- 15.5.4. Key Personnel
- 15.5.5. Key Product/Services Offered

15.6. NEC Corporation

- 15.6.1. Business Overview
- 15.6.2. Key Revenue and Financials
- 15.6.3. Recent Developments
- 15.6.4. Key Personnel
- 15.6.5. Key Product/Services Offered

15.7. Cisco Systems, Inc.

- 15.7.1. Business Overview
- 15.7.2. Key Revenue and Financials
- 15.7.3. Recent Developments
- 15.7.4. Key Personnel
- 15.7.5. Key Product/Services Offered

15.8. Qualcomm Technologies, Inc.

- 15.8.1. Business Overview
- 15.8.2. Key Revenue and Financials
- 15.8.3. Recent Developments
- 15.8.4. Key Personnel
- 15.8.5. Key Product/Services Offered

15.9. Intel Corporation

- 15.9.1. Business Overview
- 15.9.2. Key Revenue and Financials
- 15.9.3. Recent Developments
- 15.9.4. Key Personnel
- 15.9.5. Key Product/Services Offered

15.10. Fujitsu Limited

- 15.10.1. Business Overview
- 15.10.2. Key Revenue and Financials
- 15.10.3. Recent Developments
- 15.10.4. Key Personnel
- 15.10.5. Key Product/Services Offered

16. STRATEGIC RECOMMENDATIONS

17. ABOUT US & DISCLAIMER

I would like to order

Product name: Open Radio Access Network Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Deployment (Private, Public), By Network (2G, 3G, 4G, 5G), By Component (Hardware, Software, Services), By Frequency (Sub-6 GHz, mmWave), By End Use (Residential, Commercial, Industrial), By Region and By Competition, 2019-2029F

Product link: <https://marketpublishers.com/r/OF72DDC340A9EN.html>

Price: US\$ 4,900.00 (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/OF72DDC340A9EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970