

Open RAN & Cloud-native Network Market Forecasts to 2032 – Global Analysis By Offering (Disaggregated Hardware, Cloud-native Software and Integration & Managed Services), Deployment Environment, Network Type, Architecture, Functional Layer, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Open RAN & Cloud-native Network Market is accounted for \$6.20 billion in 2025 and is expected to reach \$59.09 billion by 2032 growing at a CAGR of 38.0% during the forecast period. Open RAN and cloud-native networking are transforming the telecom ecosystem by making mobile networks more software-defined, modular, and vendor-agnostic. Open RAN allows different companies' hardware and software to work together through standardized interfaces, reducing reliance on single suppliers. When layered with cloud-native principles, network functions run in lightweight containers, orchestrated through automation for rapid scaling and continuous updates. This model enhances flexibility, speeds service delivery, and optimizes operational spending. It also strengthens support for 5G-driven use cases like IoT connectivity, industrial automation, enterprise private networks, and edge-based applications.

According to the IBM Institute for Business Value (with GSMA Intelligence), 27% of network functions in communications service providers currently are hosted in public clouds.

Market Dynamics:

Driver:

Reduction of vendor lock-in and deployment cost

The Open RAN and cloud-native network market is strongly driven by the industry's focus on cutting vendor exclusivity and lowering spending on infrastructure deployments. Traditional RAN models limit freedom of choice, since networks depend on proprietary systems supplied by a few established vendors. Open RAN eliminates this challenge by supporting standardized, open interfaces that allow hardware and software from different suppliers to work together. Cloud-native deployments move functions into virtualized environments, removing the need for expensive dedicated equipment and simplifying upgrades. This mix reduces capital and operational costs, encourages competitive pricing, accelerates technological improvement, and gives operators greater flexibility in building and scaling networks.

Restraint:

Integration complexity and interoperability challenges

Integration remains one of the most significant barriers slowing adoption of Open RAN and cloud-native networks. Even though open standards promote cross-vendor compatibility, achieving stable end-to-end performance requires deep coordination, rigorous interoperability testing, and continual optimization. Many telecom operators are unfamiliar with managing diverse suppliers, making diagnosis and maintenance more complicated than traditional systems where one vendor controls everything. When a failure occurs, identifying responsibility becomes difficult, and support processes take longer. This increases deployment costs and delays rollout schedules. Due to these complexities, some operators continue to rely on proprietary, unified infrastructure, limiting how quickly open and virtualized solutions gain large-scale commercial adoption.

Opportunity:

Expansion in rural connectivity and low-cost deployments

There is a significant market opportunity for Open RAN and cloud-native deployments in rural coverage expansion. Traditional telecom setups are costly and difficult to maintain in remote areas, making high-capacity networks financially challenging. With open, virtualized architecture, operators can use low-cost, commercial hardware and white-box radios to reduce spending. Cloud-native automation allows centralized monitoring

and remote troubleshooting, lowering the operational burden. Many governments are endorsing open, vendor-neutral networks as part of broadband and connectivity initiatives. By enabling affordable 4G and 5G deployment in underserved regions, Open RAN creates new possibilities for revenue growth while helping close the urban-rural digital divide.

Threat:

Limited skilled workforce and higher operational risk

A lack of specialized talent represents a significant threat to the commercial success of Open RAN and cloud-native deployments. Telecom teams traditionally manage hardware-based networks, but open and virtualized ecosystems require new skills in cloud management, DevOps workflows, automation tools, and container orchestration. Insufficient expertise raises the risk of configuration errors, slower troubleshooting, and longer outages. Smaller operators may depend on external consultants, increasing expenses and operational complexity. If networks cannot be reliably maintained, market confidence could drop, slowing adoption. The skills gap becomes even more serious as networks scale, making technical readiness a major factor in successful rollout of open architectures.

Covid-19 Impact:

The COVID-19 pandemic had both negative and positive effects on the Open RAN & cloud-native network industry. In early stages, travel restrictions and component shortages delayed equipment supply, integration, and field deployment. Yet the sharp rise in digital services, remote connectivity, and cloud usage pushed operators to upgrade network capacity and automation. As human resources became limited, cloud-native functions and remote orchestration gained value, reducing dependency on physical site visits. Several governments and enterprises also focused on diversifying telecom ecosystems for security and resilience, boosting interest in Open RAN. Despite temporary rollout delays, COVID-19 accelerated long-term adoption of virtualized, scalable, and software-centric network models.

The private cloud RAN segment is expected to be the largest during the forecast period

The private cloud RAN segment is expected to account for the largest market share during the forecast period because operators want maximum control, security, and dedicated performance. Running virtualized RAN functions on privately managed

infrastructure allows carriers to maintain strict reliability levels and protect core network traffic. Telecom providers can tailor configurations, optimize resources, and enforce internal governance without sharing environments with third-party clouds. Private platforms also make it easier to ensure consistent latency, system stability, and end-to-end visibility. For large commercial rollouts, this model is viewed as dependable and more aligned with traditional network operating practices, making it the preferred deployment choice today.

The enterprises segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the enterprises segment is predicted to witness the highest growth rate due to rising demand for private wireless systems and advanced automation. Industries such as factories, ports, hospitals, and energy facilities require reliable connectivity for machines, sensors, and mission-critical applications. Open RAN offers greater customization and vendor flexibility, while cloud-native designs simplify management through automation and remote control. These benefits reduce operational complexity and support scalable deployments without relying on specialized hardware. As organizations expand digital operations, secure and low-latency connectivity becomes essential, pushing enterprises to adopt open, virtualized network models. This makes the enterprise segment the strongest high-growth opportunity in the market.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, owing to significant governmental initiatives, rapid 5G build-outs and early launches by carriers in nations like Japan, South Korea, India and China. Carriers here are increasingly adopting open-architecture radio access networks and virtualized cloud-native systems to handle surging mobile traffic and demand for low-latency applications. With a broad vendor ecosystem, regulatory encouragement and massive mobile subscriber growth, this region has become the front-runner in commercializing Open RAN and cloud-native RAN infrastructure, securing its position as the largest regional contributor in the market.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR. Telecom operators in the U.S. and Canada are pushing ahead with more

software-centric and disaggregated radio access networks than other regions. The combination of mature cloud platforms, large-scale edge computing, regulatory encouragement for open ecosystems, and heavy 5G deployment activity drives this accelerated uptake. With strong capabilities in virtualization, orchestration, and multi-vendor sourcing, suppliers and operators in the region are embracing open RAN architectures and containerized network functions quickly. As operators face increasing pressure for cost-effective, flexible, and dynamic networks, North America is set to post the highest growth rate worldwide.

Key players in the market

Some of the key players in Open RAN & Cloud-native Network Market include Ericsson, Mavenir, Nokia, Parallel Wireless, Samsung, NEC Corporation, Fujitsu, Intel Corporation, Qualcomm, VMware, Dell Technologies, Hewlett Packard Enterprise (HPE), IBM, Rakuten Symphony and Cisco.

Key Developments:

In November 2025, Ericsson has won a three-year deal to modernise VodafoneZiggo's mobile network across 3,000 sites, and deploy equipment using the telco's 3.5GHz spectrum holding in the Netherlands. The deployment will enable the development of new use cases for consumers, businesses, and the Internet of Things (IoT) applications, while supporting VodafoneZiggo's sustainability targets.

In November 2025, Nokia and Latvia's largest mobile operator LMT have signed a strategic agreement to jointly develop a 5G tactical communications solution tailored for defence applications in the Baltic region. The collaboration aims to deliver a secure, high-capacity and resilient system that supports the needs of modern military operations and coalition forces.

In June 2025, Mavenir along with its existing investor Siris announced a recapitalisation plan in agreement with Mavenir's lenders. Under the plan, the transaction will eliminate over \$1.3 billion in existing debt and secure \$300 million in new senior financing, along with a subordinated facility from Siris and participating lenders, according to a statement from Mavenir, which was shared exclusively with ETTelecom.

Offerings Covered:

Disaggregated Hardware

Cloud-native Software

Integration & Managed Services

Deployment Environments Covered:

Public Cloud RAN

Private Cloud RAN

Hybrid Cloud RAN

Network Types Covered:

4G/LTE RAN

5G RAN

Wi-Fi 6/7

Architectures Covered:

Virtualized RAN (vRAN)

Open RAN

Cloud-native RAN

Functional Layers Covered:

Control & Orchestration

Security Functions

Edge Compute Integration

End Users Covered:

Telecom Operators

Enterprises

Government & Defense

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants

- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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