

Intelligent Mobile Core Infrastructure Market Forecasts to 2034 – Global Analysis By Component (Hardware Infrastructure, Software Solutions, Cloud- Native Core Platforms, Virtualized Network Functions, Edge Core Infrastructure, AI-Based Traffic Management Systems and Security & Policy Control Solutions), Network Type, Deployment Mode, Application, End User and By Geography

<https://marketpublishers.com/r/IED40E9AB209EN.html>

Date: June 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: IED40E9AB209EN

Abstracts

According to Statistics MRC, the Global Intelligent Mobile Core Infrastructure Market is accounted for \$4.2 billion in 2026 and is expected to reach \$11.8 billion by 2034 growing at a CAGR of 13.7% during the forecast period. Intelligent mobile core infrastructure refers to the central network architecture that manages mobile data and voice traffic through AI-enhanced processing and automation. These systems include 4G LTE cores, 5G standalone and non-standalone cores, private mobile networks, and cloud-native core platforms with virtualized network functions. The technology encompasses hardware servers, software solutions, edge infrastructure, and AI-based traffic management systems. Intelligent mobile core infrastructure serves telecom operators, cloud providers, enterprises, and government organizations building next-generation connectivity.

Market Dynamics:

Driver:

5G deployment acceleration

The global acceleration of 5G network deployment is driving substantial investment in intelligent mobile core infrastructure. 5G standalone cores require cloud-native architectures with advanced automation. Network slicing capabilities demand intelligent resource allocation. Edge computing integration requires distributed core processing. The transition from 4G to 5G creates replacement demand across installed base.

Restraint:

Capital intensity

Mobile core infrastructure requires substantial capital investment in hardware, software, and integration. 5G core deployment involves complex migration from existing 4G infrastructure. Multi-vendor integration creates compatibility challenges. Skilled engineering resources are scarce and expensive. These economic constraints limit deployment speed.

Opportunity:

Private network expansion

Enterprise and industrial private mobile networks present substantial growth opportunities. Manufacturing, mining, and logistics sectors deploy private 5G for mission-critical applications. Private networks require customized core infrastructure. The segment offers higher margins than public network sales. Industry 4.0 initiatives drive sustained demand.

Threat:

Open RAN disruption

Open RAN initiatives threaten traditional vendor-integrated core infrastructure models. Disaggregation of hardware and software reduces vendor lock-in. Open interfaces enable multi-vendor deployments. Hyperscale cloud providers enter the core infrastructure market. These trends increase competition and pricing pressure.

Covid-19 Impact:

The COVID-19 pandemic initially disrupted supply chains and delayed 5G deployments.

However, increased remote connectivity demands accelerated network investment. Post-pandemic, sustained digital transformation sustains core infrastructure demand. The experience highlighted network resilience requirements. Government stimulus supported broadband expansion.

The edge core infrastructure segment is expected to be the largest during the forecast period

The edge core infrastructure segment is expected to account for the largest market share during the forecast period, due to critical role in distributed computing and low-latency applications. Edge core infrastructure processes data closer to end users, reducing latency. The segment supports IoT, autonomous systems, and real-time applications. Integration with cloud platforms enables hybrid architectures. Growing data volumes drive edge processing demand.

The 4G/LTE core segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the 4G/LTE core segment is predicted to witness the highest growth rate, driven by continued global subscriber base and IoT connectivity. 4G LTE core infrastructure maintains relevance in regions with delayed 5G adoption. The segment supports massive existing device ecosystems. Cost advantages over 5G cores appeal to emerging markets. Refurbishment and upgrade cycles sustain demand.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to early 5G deployment and advanced cloud infrastructure. The United States leads with major operators deploying standalone 5G cores. Well-developed data center infrastructure supports cloud-native deployment. Strong vendor presence drives innovation. Enterprise adoption supports private network growth.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by massive subscriber growth and government digital initiatives. China represents the dominant deployment market with government-supported 5G expansion. India presents emerging opportunities with spectrum auctions and network modernization. Government smart city programs create favorable environments.

Manufacturing automation sustains private network demand.

Key players in the market

Some of the key players in Intelligent Mobile Core Infrastructure Market include Ericsson, Nokia Corporation, Huawei Technologies Co., Ltd., Samsung Electronics Co., Ltd., Cisco Systems, Inc., ZTE Corporation, Mavenir Systems, Inc., Oracle Corporation, NEC Corporation, Fujitsu Limited, Intel Corporation, Qualcomm Incorporated, Juniper Networks, Inc., VMware, Inc., Affirmed Networks, Athonet S.r.l., Hewlett Packard Enterprise Company and Rakuten Symphony, Inc..

Key Developments:

In May 2026, Affirmed Networks launched a cloud-native 5G standalone core platform featuring AI-driven traffic optimization for enterprise private networks, improving connectivity performance, network scalability, resource allocation, operational efficiency, and intelligent telecommunications infrastructure management capabilities globally.

In April 2026, Juniper Networks Inc. partnered with Asian telecom operators to deploy virtualized core infrastructure supporting network slicing for industrial applications, enhancing connectivity flexibility, low-latency communication, operational scalability, digital transformation, and advanced enterprise telecommunications service delivery capabilities.

In March 2026, NEC Corporation introduced edge core processing units integrated with AI accelerators for ultra-low latency autonomous vehicle connectivity, strengthening intelligent transportation networks, real-time communication efficiency, infrastructure reliability, edge computing performance, and next-generation mobility ecosystem development initiatives.

Components Covered:

Hardware Infrastructure

Software Solutions

Cloud-Native Core Platforms

Virtualized Network Functions

Edge Core Infrastructure

AI-Based Traffic Management Systems

Security & Policy Control Solutions

Network Types Covered:

4G/LTE Core

5G Standalone Core

5G Non-Standalone Core

Private Mobile Core Networks

Deployment Modes Covered:

On-Premises

Cloud-Based

Hybrid Deployment

Applications Covered:

Consumer Mobile Broadband

IoT Connectivity

Autonomous Mobility

Smart Manufacturing

Mission-Critical Communications

Smart Cities

End Users Covered:

Telecom Operators

Cloud Service Providers

Enterprises

Government Organizations

Industrial Network Providers

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- 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

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY COMPONENT

- 5.1 Hardware Infrastructure
 - 5.1.1 Core Network Servers
 - 5.1.2 High-Performance Routers
- 5.2 Software Solutions
- 5.3 Cloud-Native Core Platforms
- 5.4 Virtualized Network Functions
- 5.5 Edge Core Infrastructure
- 5.6 AI-Based Traffic Management Systems
- 5.7 Security & Policy Control Solutions

6 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY NETWORK TYPE

- 6.1 4G/LTE Core
- 6.2 5G Standalone Core
- 6.3 5G Non-Standalone Core
- 6.4 Private Mobile Core Networks

7 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY DEPLOYMENT MODE

- 7.1 On-Premises
- 7.2 Cloud-Based
- 7.3 Hybrid Deployment

8 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY APPLICATION

- 8.1 Consumer Mobile Broadband
- 8.2 IoT Connectivity
- 8.3 Autonomous Mobility
- 8.4 Smart Manufacturing

8.5 Mission-Critical Communications

8.6 Smart Cities

9 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY END USER

9.1 Telecom Operators

9.2 Cloud Service Providers

9.3 Enterprises

9.4 Government Organizations

9.5 Industrial Network Providers

10 GLOBAL INTELLIGENT MOBILE CORE INFRASTRUCTURE MARKET, BY GEOGRAPHY

10.1 North America

10.1.1 United States

10.1.2 Canada

10.1.3 Mexico

10.2 Europe

10.2.1 United Kingdom

10.2.2 Germany

10.2.3 France

10.2.4 Italy

10.2.5 Spain

10.2.6 Netherlands

10.2.7 Belgium

10.2.8 Sweden

10.2.9 Switzerland

10.2.10 Poland

10.2.11 Rest of Europe

10.3 Asia Pacific

10.3.1 China

10.3.2 Japan

10.3.3 India

10.3.4 South Korea

10.3.5 Australia

10.3.6 Indonesia

10.3.7 Thailand

- 10.3.8 Malaysia
- 10.3.9 Singapore
- 10.3.10 Vietnam
- 10.3.11 Rest of Asia Pacific
- 10.4 South America
 - 10.4.1 Brazil
 - 10.4.2 Argentina
 - 10.4.3 Colombia
 - 10.4.4 Chile
 - 10.4.5 Peru
 - 10.4.6 Rest of South America
- 10.5 Rest of the World (RoW)
 - 10.5.1 Middle East
 - 10.5.1.1 Saudi Arabia
 - 10.5.1.2 United Arab Emirates
 - 10.5.1.3 Qatar
 - 10.5.1.4 Israel
 - 10.5.1.5 Rest of Middle East
 - 10.5.2 Africa
 - 10.5.2.1 South Africa
 - 10.5.2.2 Egypt
 - 10.5.2.3 Morocco
 - 10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

- 11.1 Industry Value Network and Supply Chain Assessment
- 11.2 White-Space and Opportunity Mapping
- 11.3 Product Evolution and Market Life Cycle Analysis
- 11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 12.1 Mergers and Acquisitions
- 12.2 Partnerships, Alliances, and Joint Ventures
- 12.3 New Product Launches and Certifications
- 12.4 Capacity Expansion and Investments
- 12.5 Other Strategic Initiatives

13 COMPANY PROFILES

- 13.1 Ericsson
- 13.2 Nokia Corporation
- 13.3 Huawei Technologies Co., Ltd.
- 13.4 Samsung Electronics Co., Ltd.
- 13.5 Cisco Systems, Inc.
- 13.6 ZTE Corporation
- 13.7 Mavenir Systems, Inc.
- 13.8 Oracle Corporation
- 13.9 NEC Corporation
- 13.10 Fujitsu Limited
- 13.11 Intel Corporation
- 13.12 Qualcomm Incorporated
- 13.13 Juniper Networks, Inc.
- 13.14 VMware, Inc.
- 13.15 Affirmed Networks
- 13.16 Athonet S.r.l.
- 13.17 Hewlett Packard Enterprise Company
- 13.18 Rakuten Symphony, Inc.

List Of Tables

LIST OF TABLES

Table 1 Global Intelligent Mobile Core Infrastructure Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Intelligent Mobile Core Infrastructure Market Outlook, By Component (2023-2034) (\$MN)

Table 3 Global Intelligent Mobile Core Infrastructure Market Outlook, By Hardware Infrastructure (2023-2034) (\$MN)

Table 4 Global Intelligent Mobile Core Infrastructure Market Outlook, By Core Network Servers (2023-2034) (\$MN)

Table 5 Global Intelligent Mobile Core Infrastructure Market Outlook, By High-Performance Routers (2023-2034) (\$MN)

Table 6 Global Intelligent Mobile Core Infrastructure Market Outlook, By Software Solutions (2023-2034) (\$MN)

Table 7 Global Intelligent Mobile Core Infrastructure Market Outlook, By Cloud-Native Core Platforms (2023-2034) (\$MN)

Table 8 Global Intelligent Mobile Core Infrastructure Market Outlook, By Virtualized Network Functions (2023-2034) (\$MN)

Table 9 Global Intelligent Mobile Core Infrastructure Market Outlook, By Edge Core Infrastructure (2023-2034) (\$MN)

Table 10 Global Intelligent Mobile Core Infrastructure Market Outlook, By AI-Based Traffic Management Systems (2023-2034) (\$MN)

Table 11 Global Intelligent Mobile Core Infrastructure Market Outlook, By Security & Policy Control Solutions (2023-2034) (\$MN)

Table 12 Global Intelligent Mobile Core Infrastructure Market Outlook, By Network Type (2023-2034) (\$MN)

Table 13 Global Intelligent Mobile Core Infrastructure Market Outlook, By 4G/LTE Core (2023-2034) (\$MN)

Table 14 Global Intelligent Mobile Core Infrastructure Market Outlook, By 5G Standalone Core (2023-2034) (\$MN)

Table 15 Global Intelligent Mobile Core Infrastructure Market Outlook, By 5G Non-Standalone Core (2023-2034) (\$MN)

Table 16 Global Intelligent Mobile Core Infrastructure Market Outlook, By Private Mobile Core Networks (2023-2034) (\$MN)

Table 17 Global Intelligent Mobile Core Infrastructure Market Outlook, By Deployment Mode (2023-2034) (\$MN)

Table 18 Global Intelligent Mobile Core Infrastructure Market Outlook, By On-Premises

(2023-2034) (\$MN)

Table 19 Global Intelligent Mobile Core Infrastructure Market Outlook, By Cloud-Based (2023-2034) (\$MN)

Table 20 Global Intelligent Mobile Core Infrastructure Market Outlook, By Hybrid Deployment (2023-2034) (\$MN)

Table 21 Global Intelligent Mobile Core Infrastructure Market Outlook, By Application (2023-2034) (\$MN)

Table 22 Global Intelligent Mobile Core Infrastructure Market Outlook, By Consumer Mobile Broadband (2023-2034) (\$MN)

Table 23 Global Intelligent Mobile Core Infrastructure Market Outlook, By IoT Connectivity (2023-2034) (\$MN)

Table 24 Global Intelligent Mobile Core Infrastructure Market Outlook, By Autonomous Mobility (2023-2034) (\$MN)

Table 25 Global Intelligent Mobile Core Infrastructure Market Outlook, By Smart Manufacturing (2023-2034) (\$MN)

Table 26 Global Intelligent Mobile Core Infrastructure Market Outlook, By Mission-Critical Communications (2023-2034) (\$MN)

Table 27 Global Intelligent Mobile Core Infrastructure Market Outlook, By Smart Cities (2023-2034) (\$MN)

Table 28 Global Intelligent Mobile Core Infrastructure Market Outlook, By End User (2023-2034) (\$MN)

Table 29 Global Intelligent Mobile Core Infrastructure Market Outlook, By Telecom Operators (2023-2034) (\$MN)

Table 30 Global Intelligent Mobile Core Infrastructure Market Outlook, By Cloud Service Providers (2023-2034) (\$MN)

Table 31 Global Intelligent Mobile Core Infrastructure Market Outlook, By Enterprises (2023-2034) (\$MN)

Table 32 Global Intelligent Mobile Core Infrastructure Market Outlook, By Government Organizations (2023-2034) (\$MN)

Table 33 Global Intelligent Mobile Core Infrastructure Market Outlook, By Industrial Network Providers (2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

I would like to order

Product name: Intelligent Mobile Core Infrastructure Market Forecasts to 2034 – Global Analysis By Component (Hardware Infrastructure, Software Solutions, Cloud-Native Core Platforms, Virtualized Network Functions, Edge Core Infrastructure, AI-Based Traffic Management Systems and Security & Policy Control Solutions), Network Type, Deployment Mode, Application, End User and By Geography

Product link: <https://marketpublishers.com/r/IED40E9AB209EN.html>

Price: US\$ 4,150.00 (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/IED40E9AB209EN.html>