

Global Artificial Intelligence (AI) in Telecommunication Market Size Study & Forecast, by Deployment, Technology, Application and Regional Forecasts 2025-2035

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Abstracts

The Global Artificial Intelligence (AI) in Telecommunication Market is valued at approximately USD 3.34 billion in 2024 and is expected to witness an extraordinary CAGR of 43.30% during the forecast period 2025-2035. As telecom networks grow increasingly complex and hyper-connected, the need to optimize operational performance, detect anomalies in real time, and enhance user experience has paved the way for AI to become the backbone of next-generation telecommunications. AI is no longer a peripheral add-on but a foundational pillar of intelligent automation, fueling innovations in predictive maintenance, virtual assistants, customer experience management, and network optimization. Telecom operators are now compelled to integrate AI into their ecosystems to handle exponentially growing data traffic, improve agility, and support 5G rollouts and beyond.

The rising integration of machine learning, big data analytics, and natural language processing within telecom systems has empowered companies to reduce churn, hyper-personalize services, and ensure zero-touch operations. AI in telecom is unlocking the ability to automate fraud detection, proactively manage network health, and even optimize radio access networks (RAN) for dynamic traffic loads. The widespread deployment of cloud infrastructure has catalyzed scalable AI applications, making real-time data ingestion and analysis seamless for global telecom operators. With virtualized networks and software-defined architectures on the rise, AI becomes a critical enabler of intelligent orchestration across distributed environments, delivering unmatched speed, cost savings, and resilience.

Geographically, North America is currently leading the AI in Telecommunication market, bolstered by strong technological infrastructure, high investment in 5G deployment, and early adoption of cloud-native AI solutions by telecom giants such as AT&T and Verizon. The region's emphasis on cybersecurity, predictive analytics, and intelligent customer engagement has made it a front-runner in AI adoption. Europe is witnessing rapid growth driven by regulatory pressure to improve transparency, efficiency mandates in the telecom space, and extensive fiber-to-the-home rollouts. Meanwhile, Asia Pacific is poised to experience the highest growth rate throughout the forecast period. Emerging economies such as China and India are aggressively investing in smart cities, IoT-based networks, and AI-led telecom transformation to improve connectivity, spectrum utilization, and data monetization. Government initiatives supporting AI research, combined with the exploding mobile subscriber base, are further accelerating AI's proliferation in this region.

Major market player included in this report are:

Huawei Technologies Co., Ltd.

Microsoft Corporation

NVIDIA Corporation

Cisco Systems, Inc.

IBM Corporation

Google LLC

Ericsson AB

Salesforce, Inc.

Nokia Corporation

Amazon Web Services, Inc.

Intel Corporation

ZTE Corporation

H2O.ai

Infosys Limited

NEC Corporation

Global Artificial Intelligence (AI) in Telecommunication Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period – 2025-2035

Report Coverage – Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the market are explained below:

By Deployment:

Cloud

On-Premises

By Technology:

Machine Learning

Natural Language Processing

Big Data

Others (Deep Learning)

By Application:

Network/IT Operations Management

Customer Service and Marketing VDAS

CRM Management

Radio Access Network

Customer Experience Management

Predictive Maintenance

Others (Fraud Mitigation)

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

Contents

CHAPTER 1. GLOBAL AI IN TELECOMMUNICATION MARKET REPORT SCOPE & METHODOLOGY

- 1.1. Research Objective
- 1.2. Research Methodology
 - 1.2.1. Forecast Model
 - 1.2.2. Desk Research
 - 1.2.3. Top-Down and Bottom-Up Approach
- 1.3. Research Attributes
- 1.4. Scope of the Study
 - 1.4.1. Market Definition
 - 1.4.2. Market Segmentation
- 1.5. Research Assumption
 - 1.5.1. Inclusion & Exclusion
 - 1.5.2. Limitations
 - 1.5.3. Years Considered for the Study

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. CEO/CXO Standpoint
- 2.2. Strategic Insights
- 2.3. ESG Analysis
- 2.4. Key Findings

CHAPTER 3. GLOBAL AI IN TELECOMMUNICATION MARKET FORCES ANALYSIS

- 3.1. Market Forces Shaping the Global AI in Telecommunication Market (2024-2035)
- 3.2. Drivers
 - 3.2.1. Proliferation of 5G and IoT Connectivity
 - 3.2.2. Surge in Data Traffic and Network Complexity
- 3.3. Restraints
 - 3.3.1. Data Privacy and Security Concerns
 - 3.3.2. High Integration and Maintenance Costs
- 3.4. Opportunities
 - 3.4.1. AI-Driven Network Slicing and Edge Analytics
 - 3.4.2. Expansion of Virtual Assistants and Chatbots

CHAPTER 4. GLOBAL AI IN TELECOMMUNICATION INDUSTRY ANALYSIS

- 4.1. Porter's Five Forces Model
 - 4.1.1. Bargaining Power of Buyers
 - 4.1.2. Bargaining Power of Suppliers
 - 4.1.3. Threat of New Entrants
 - 4.1.4. Threat of Substitutes
 - 4.1.5. Competitive Rivalry
- 4.2. Porter's Five Forces Forecast Model (2024-2035)
- 4.3. PESTEL Analysis
 - 4.3.1. Political
 - 4.3.2. Economic
 - 4.3.3. Social
 - 4.3.4. Technological
 - 4.3.5. Environmental
 - 4.3.6. Legal
- 4.4. Top Investment Opportunities
- 4.5. Top Winning Strategies (2025)
- 4.6. Market Share Analysis (2024-2025)
- 4.7. Global Pricing Analysis and Trends 2025
- 4.8. Analyst Recommendation & Conclusion

CHAPTER 5. GLOBAL AI IN TELECOMMUNICATION MARKET SIZE & FORECASTS BY DEPLOYMENT 2025-2035

- 5.1. Market Overview
- 5.2. Cloud
 - 5.2.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035
 - 5.2.2. Market Size Analysis, by Region, 2025-2035
- 5.3. On-Premises
 - 5.3.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035
 - 5.3.2. Market Size Analysis, by Region, 2025-2035

CHAPTER 6. GLOBAL AI IN TELECOMMUNICATION MARKET SIZE & FORECASTS BY TECHNOLOGY 2025-2035

- 6.1. Market Overview
- 6.2. Machine Learning
 - 6.2.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035

- 6.2.2. Market Size Analysis, by Region, 2025-2035
- 6.3. Natural Language Processing
 - 6.3.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035
 - 6.3.2. Market Size Analysis, by Region, 2025-2035
- 6.4. Big Data
 - 6.4.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035
 - 6.4.2. Market Size Analysis, by Region, 2025-2035
- 6.5. Others (Deep Learning)
 - 6.5.1. Top Countries Breakdown Estimates & Forecasts, 2024-2035
 - 6.5.2. Market Size Analysis, by Region, 2025-2035

CHAPTER 7. GLOBAL AI IN TELECOMMUNICATION MARKET SIZE & FORECASTS BY APPLICATION 2025-2035

- 7.1. Network/IT Operations Management
- 7.2. Customer Service and Marketing VDAS
- 7.3. CRM Management
- 7.4. Radio Access Network
- 7.5. Customer Experience Management
- 7.6. Predictive Maintenance
- 7.7. Others (Fraud Mitigation)

CHAPTER 8. GLOBAL AI IN TELECOMMUNICATION MARKET SIZE & FORECASTS BY REGION 2025-2035

- 8.1. Market, Regional Market Snapshot
- 8.2. Top Leading & Emerging Countries
- 8.3. North America AI in Telecommunication Market
 - 8.3.1. U.S. AI in Telecommunication Market
 - 8.3.1.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.3.1.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.3.2. Canada AI in Telecommunication Market
 - 8.3.2.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.3.2.2. Application breakdown Size & Forecasts, 2025-2035
- 8.4. Europe AI in Telecommunication Market
 - 8.4.1. UK Market
 - 8.4.1.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.4.1.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.4.2. Germany Market

- 8.4.2.1. Deployment breakdown Size & Forecasts, 2025-2035
- 8.4.2.2. Application breakdown Size & Forecasts, 2025-2035
- 8.4.3. France Market
 - 8.4.3.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.4.3.2. Application breakdown Size & Forecasts, 2025-2035
- 8.4.4. Spain Market
 - 8.4.4.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.4.4.2. Application breakdown Size & Forecasts, 2025-2035
- 8.4.5. Italy Market
 - 8.4.5.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.4.5.2. Application breakdown Size & Forecasts, 2025-2035
- 8.4.6. Rest of Europe Market
 - 8.4.6.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.4.6.2. Application breakdown Size & Forecasts, 2025-2035
- 8.5. Asia Pacific AI in Telecommunication Market
 - 8.5.1. China Market
 - 8.5.1.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.1.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.5.2. India Market
 - 8.5.2.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.2.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.5.3. Japan Market
 - 8.5.3.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.3.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.5.4. Australia Market
 - 8.5.4.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.4.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.5.5. South Korea Market
 - 8.5.5.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.5.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.5.6. Rest of APAC Market
 - 8.5.6.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.5.6.2. Application breakdown Size & Forecasts, 2025-2035
- 8.6. Latin America AI in Telecommunication Market
 - 8.6.1. Brazil Market
 - 8.6.1.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.6.1.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.6.2. Mexico Market
 - 8.6.2.1. Deployment breakdown Size & Forecasts, 2025-2035

- 8.6.2.2. Application breakdown Size & Forecasts, 2025-2035
- 8.7. Middle East & Africa AI in Telecommunication Market
 - 8.7.1. UAE Market
 - 8.7.1.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.7.1.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.7.2. Saudi Arabia Market
 - 8.7.2.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.7.2.2. Application breakdown Size & Forecasts, 2025-2035
 - 8.7.3. South Africa Market
 - 8.7.3.1. Deployment breakdown Size & Forecasts, 2025-2035
 - 8.7.3.2. Application breakdown Size & Forecasts, 2025-2035

CHAPTER 9. COMPETITIVE INTELLIGENCE

- 9.1. Top Market Strategies
- 9.2. Huawei Technologies Co., Ltd.
 - 9.2.1. Company Overview
 - 9.2.2. Key Executives
 - 9.2.3. Company Snapshot
 - 9.2.4. Financial Performance (Subject to Data Availability)
 - 9.2.5. Product/Services Port
 - 9.2.6. Recent Development
 - 9.2.7. Market Strategies
 - 9.2.8. SWOT Analysis
- 9.3. Microsoft Corporation
- 9.4. NVIDIA Corporation
- 9.5. Cisco Systems, Inc.
- 9.6. IBM Corporation
- 9.7. Google LLC
- 9.8. Ericsson AB
- 9.9. Salesforce, Inc.
- 9.10. Nokia Corporation
- 9.11. Amazon Web Services, Inc.
- 9.12. Intel Corporation
- 9.13. ZTE Corporation
- 9.14. H2O.ai
- 9.15. Infosys Limited
- 9.16. NEC Corporation

List Of Tables

LIST OF TABLES

Table 1. Global AI in Telecommunication Market, Report Scope

Table 2. Global AI in Telecommunication Market Estimates & Forecasts by Region
2024–2035

Table 3. Global AI in Telecommunication Market Estimates & Forecasts by Deployment
2024–2035

Table 4. Global AI in Telecommunication Market Estimates & Forecasts by Technology
2024–2035

Table 5. Global AI in Telecommunication Market Estimates & Forecasts by Application
2024–2035

Table 6. U.S. AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 7. Canada AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 8. UK AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 9. Germany AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 10. France AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 11. Spain AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 12. Italy AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 13. Rest of Europe AI in Telecommunication Market Estimates & Forecasts,
2024–2035

Table 14. China AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 15. India AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 16. Japan AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 17. Australia AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 18. South Korea AI in Telecommunication Market Estimates & Forecasts,
2024–2035

Table 19. Brazil AI in Telecommunication Market Estimates & Forecasts, 2024–2035

Table 20. Mexico AI in Telecommunication Market Estimates & Forecasts, 2024–2035

List Of Figures

LIST OF FIGURES

- Fig 1. Global AI in Telecommunication Market, Research Methodology
- Fig 2. Global AI in Telecommunication Market, Market Estimation Techniques
- Fig 3. Global Market Size Estimates & Forecast Methods
- Fig 4. Global AI in Telecommunication Market, Key Trends 2025
- Fig 5. Global AI in Telecommunication Market, Growth Prospects 2024–2035
- Fig 6. Global AI in Telecommunication Market, Porter's Five Forces Model
- Fig 7. Global AI in Telecommunication Market, PESTEL Analysis
- Fig 8. Global AI in Telecommunication Market, Value Chain Analysis
- Fig 9. AI in Telecommunication Market by Deployment, 2025 & 2035
- Fig 10. AI in Telecommunication Market by Technology, 2025 & 2035
- Fig 11. AI in Telecommunication Market by Application, 2025 & 2035
- Fig 12. North America AI in Telecommunication Market, 2025 & 2035
- Fig 13. Europe AI in Telecommunication Market, 2025 & 2035
- Fig 14. Asia Pacific AI in Telecommunication Market, 2025 & 2035
- Fig 15. Latin America AI in Telecommunication Market, 2025 & 2035
- Fig 16. Middle East & Africa AI in Telecommunication Market, 2025 & 2035
- Fig 17. Global AI in Telecommunication Market, Company Market Share Analysis (2025)

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