

# **Telecom AI Operations (AIOps) Market Forecasts to 2034 – Global Analysis By Component (Platform and Services), Deployment Mode, Functionality, Organization Size, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Telecom AI Operations (AIOps) Market is accounted for \$6.4 billion in 2026 and is expected to reach \$38.6 billion by 2034 growing at a CAGR of 25.1% during the forecast period. Telecom AI Operations refers to AI-driven operational intelligence platforms and services that apply machine learning, advanced analytics, and automation to telecommunications network management, service operations, IT infrastructure monitoring, and operational support systems to enable intelligent event correlation, anomaly detection, predictive fault resolution, automated remediation, and continuous performance optimization through on-premises, cloud-based, and hybrid deployment models, fundamentally transforming network operations from reactive manual management to proactive AI-guided autonomous operations.

### **Market Dynamics:**

#### **Driver:**

5G Network Operations Complexity Automation Necessity

Telecommunications 5G network complexity from software-defined infrastructure, network slicing, edge computing, and massive IoT device management creating operational management demands that human-staffed network operations centers cannot address at required scale and speed is making AIOps platform investment a

commercial necessity rather than optional efficiency improvement. Documented AIOps deployment outcomes including 60 to 80 percent reduction in mean time to repair and 40 to 50 percent reduction in network operations center staffing cost provide compelling justification for substantial AIOps platform investment programs at major global telecommunications operators.

**Restraint:****AI Model Training Data Quality Requirements**

Telecom AIOps platform performance dependency on high-quality historical network performance, alarm, and incident data for AI model training creating initial deployment quality challenges at operators with fragmented, inconsistent, or insufficiently labeled operational data histories that limit early AIOps analytical performance, requiring substantial data quality remediation and labeling investment before AIOps platforms deliver the anomaly detection accuracy and false positive rates that operational teams accept for autonomous remediation action authorization in production network environments.

**Opportunity:****Autonomous Network Zero-Touch Operations**

Telecommunications industry vision of zero-touch autonomous network operations enabled by AIOps platforms capable of closed-loop automated diagnosis and remediation without human intervention for routine fault management and optimization represents the most transformative commercial opportunity in telecom operations technology, with operators achieving early autonomous operations capability gaining substantial operational cost advantage. GSM Association Autonomous Networks TM Forum framework standardization enabling vendor-interoperable AIOps adoption accelerates market development.

**Threat:****Network Operations Team Adoption Resistance**

Network operations engineer resistance to AIOps platform automated remediation recommendations arising from legitimate concerns about AI system reliability in production network environments where automated incorrect remediation actions could

cause service outages more severe than the original detected fault creates organizational deployment barriers limiting initial AIOps deployment to monitoring and recommendation modes rather than autonomous action authorization, constraining the operational efficiency benefit realization that justifies AIOps investment business case ROI calculations.

### **Covid-19 Impact:**

COVID-19 network traffic surge management requiring rapid automated capacity response demonstrated AIOps platform capability advantages over manual operations management at a time when NOC staffing access was constrained by pandemic restrictions. Post-pandemic 5G network deployment creating unprecedented NOC management complexity combined with operational technology labor market tightening reducing experienced network operations engineering talent availability continue generating strong AIOps investment motivation across telecommunications operator network management organizations.

The Services segment is expected to be the largest during the forecast period

The Services segment is expected to account for the largest market share during the forecast period, due to the significant professional services and managed service investment required for AIOps platform implementation, AI model customization, NOC process transformation, and ongoing managed AIOps service delivery that telecommunications operators invest in from specialized AIOps implementation partners who combine platform expertise with telecom network operations domain knowledge required for effective AIOps deployment delivering measurable network performance improvement outcomes.

The On-Premises segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the On-Premises segment is predicted to witness the highest growth rate, driven by telecommunications operator preference for on-premises AIOps deployment for network operations management workloads requiring real-time data processing at network management system proximity without cloud transmission latency, combined with network operations data sovereignty and security requirements that constrain cloud deployment suitability for sensitive network performance intelligence that AIOps platforms process for automated fault management and optimization.

**Region with largest share:**

During the forecast period, the North America region is expected to hold the largest market share, due to the United States hosting advanced telecommunications operator AIOps deployment programs with leading platforms including IBM, Cisco, ServiceNow, and Dynatrace generating substantial North American telecom revenue, strong operator investment in autonomous network operations as competitive differentiation, and advanced 5G network deployment creating largest-scale AIOps deployment requirements.

**Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, due to China, Japan, South Korea, and India hosting massive 5G network deployments requiring AI-assisted operations management at unprecedented scale, strong government digital infrastructure investment funding network operations automation, and domestic AIOps solution development from Huawei and regional vendors creating competitive ecosystem expansion across Asia Pacific telecommunications operator AIOps adoption.

**Key players in the market**

Some of the key players in Telecom AI Operations (AIOps) Market include International Business Machines Corporation (IBM), Cisco Systems Inc., Broadcom Inc., VMware Inc., Splunk Inc., BMC Software Inc., Dynatrace LLC, New Relic Inc., Elastic N.V., PagerDuty Inc., Moogsoft Inc., Micro Focus International plc, HCL Technologies Limited, ServiceNow Inc., and Juniper Networks Inc..

**Key Developments:**

In April 2026, ServiceNow Inc. launched a telecommunications-specific AIOps operations module integrating network performance telemetry with IT service management for unified closed-loop automated incident detection, root cause analysis, and remediation workflow automation.

In March 2026, Dynatrace LLC introduced a 5G network observability platform combining AI-powered anomaly detection across RAN, core, and transport network telemetry streams for automated fault identification and service impact prediction in real-

time.

#### Components Covered:

Platform

Services

#### Deployment Modes Covered:

On-Premises

Cloud-Based

Hybrid Deployment

#### Functionalities Covered:

Event Correlation

Anomaly Detection

Predictive Analytics

Root Cause Analysis

Performance Monitoring

Automation & Remediation

#### Organization Sizes Covered:

Large Enterprises

Small & Medium Enterprises (SMEs)

**Applications Covered:**

Network Performance Management

Fault & Incident Management

Security Management

Customer Experience Management

Infrastructure Management

Application Performance Analysis

Real-time Analytics

Network & Security Operations

Root Cause Analysis

**End Users Covered:**

Telecom Operators

Managed Service Providers (MSPs)

Network Equipment Providers

System Integrators

Other End Users

**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 2023, 2024, 2025, 2026, 2027, 2028, 2029, 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

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