

Industrial Internet of Things (IIoT) Market Forecasts to 2032 – Global Analysis By Component (Hardware, Software and Services), Connectivity Type, Deployment Mode, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Industrial Internet of Things (IIoT) Market is accounted for \$586.07 billion in 2025 and is expected to reach \$2264.52 billion by 2032 growing at a CAGR of 21.3% during the forecast period. The Industrial Internet of Things (IIoT) integrates smart sensors, connected devices, and intelligent software into industrial operations to boost performance and innovation. It enables real-time data sharing, predictive analytics, and automation, helping businesses minimize downtime, improve safety, and enhance resource efficiency. IIoT networks create seamless communication between machinery, assets, and employees, fostering smarter decision-making and sustainable practices. By unlocking valuable insights from data, industries can refine processes, cut costs, and strengthen productivity. Applied in fields such as manufacturing, energy, transportation, and healthcare, IIoT is revolutionizing conventional sectors, transforming them into adaptive, digitally connected ecosystems with greater competitiveness and resilience.

According to the World Economic Forum, IIoT is a key enabler of the Fourth Industrial Revolution, with smart factories projected to contribute up to \$3.7 trillion in value by 2025 through increased productivity and reduced waste.

Market Dynamics:

Driver:

Rising demand for automation and efficiency

Automation and efficiency enhancement are key factors driving the Industrial Internet of Things (IIoT) market. Enterprises in diverse industries are turning to IIoT-enabled solutions to improve productivity, reduce manual tasks, and achieve cost savings. With advanced sensors and analytics, IIoT provides real-time insights that enable predictive maintenance, minimizing unexpected breakdowns and downtime. This increases operational reliability and output while ensuring resource optimization and safety. Automation also supports precision and sustainable practices, allowing companies to meet rising demands with fewer inputs. As competition grows, industries worldwide are increasingly leveraging IIoT to achieve smarter, faster, and more efficient production processes.

Restraint:

High implementation and integration costs

One of the key challenges restraining the Industrial Internet of Things (IIoT) market is the high cost of implementation and integration. Establishing IIoT systems demands heavy expenditure on modern hardware, IoT platforms, reliable networks, and expert professionals. For small and medium-sized enterprises, these expenses are often difficult to manage, making adoption slower. Integrating IIoT with outdated legacy infrastructure adds further technical and financial burdens, requiring customized solutions. Such costs reduce affordability and limit adoption across developing regions and budget-conscious organizations. While IIoT promises strong efficiency and productivity gains, the substantial initial investments remain a critical barrier to large-scale deployment.

Opportunity:

Advancements in 5G and connectivity

The evolution of 5G technology and advanced connectivity solutions is creating strong growth opportunities for the Industrial Internet of Things (IIoT) market. Ultra-fast, low-latency networks allow uninterrupted interaction between devices, sensors, and platforms, ensuring real-time data exchange and improved automation. 5G enables smart manufacturing, remote operations, and digital twins with enhanced efficiency and dependability. It also supports large-scale IoT deployment, making predictive maintenance, operational safety, and optimized resource usage more achievable. As

industries worldwide adopt 5G infrastructure, they can scale IIoT innovations faster, leading to higher productivity, sustainability, and competitiveness. This connectivity revolution significantly accelerates IIoT adoption and market expansion.

Threat:

Interoperability and standardization issues

A major threat to the Industrial Internet of Things (IIoT) market lies in interoperability and standardization problems. With numerous devices, platforms, and protocols in use, seamless integration remains a challenge. Companies often face difficulties connecting modern IIoT systems with outdated infrastructure, which slows adoption and increases costs. The absence of common global standards creates inefficiencies and encourages vendor lock-in, reducing enterprise flexibility. Furthermore, poor interoperability heightens cybersecurity risks by creating fragmented environments that are difficult to secure. These issues hinder scalability and prevent organizations from fully leveraging IIoT's potential. Until harmonized standards are established, interoperability concerns will remain a critical barrier.

Covid-19 Impact:

The outbreak of COVID-19 created both challenges and opportunities for the Industrial Internet of Things (IIoT) market. During the early stages, global lockdowns, manufacturing shutdowns, and disrupted supply chains slowed project execution and delayed investments in IIoT technologies. Economic instability further discouraged large-scale implementations. At the same time, the pandemic highlighted the importance of remote operations, automation, and data-driven monitoring, accelerating IIoT adoption in essential industries like healthcare, logistics, and utilities. Companies embraced IIoT to ensure business continuity and reduce dependency on manual processes. As industries recover, IIoT is gaining momentum as a key enabler of efficiency, resilience, and growth.

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

The hardware segment is expected to account for the largest market share during the forecast period as it provides the essential building blocks for digital industrial ecosystems. This category covers sensors, devices, controllers, and gateways that capture and transfer operational data across connected networks. Hardware bridges the gap between physical assets and digital platforms, enabling automation, monitoring,

and intelligent decision-making. Its reliability ensures smooth communication between machines and systems, supporting predictive maintenance and process optimization. As industries increasingly adopt smart technologies to improve efficiency, the requirement for robust and scalable hardware remains high, positioning it as the most critical and widely used component of IIoT.

The cloud-based segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the cloud-based segment is predicted to witness the highest growth rate, driven by its affordability, scalability, and efficiency. Cloud solutions enable organizations to store, process, and analyze vast amounts of IIoT data without heavy investment in physical infrastructure. This flexibility makes it ideal for companies of all sizes, particularly SMEs. Cloud platforms also support remote operations, predictive analytics, and real-time monitoring, ensuring smooth industrial workflows across multiple locations. With increasing focus on digitalization, industries are adopting cloud-based IIoT systems to streamline operations, accelerate deployment, and integrate advanced technologies, making this segment the fastest-growing globally.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by its advanced infrastructure, innovation-driven industries, and strong focus on digital adoption. Manufacturing, energy, and logistics companies in the region actively deploy IIoT solutions to improve productivity, minimize downtime, and drive automation. The presence of prominent technology providers and consistent research and development investments further boost market expansion. Government policies promoting Industry 4.0 and smart factories accelerate IIoT integration across sectors. Moreover, advancements in 5G, artificial intelligence, and big data analytics enhance operational efficiency, solidifying North America's position as the leading region with the largest market share globally.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, supported by technological advancements and large-scale industrial expansion. Nations including China, India, Japan, and South Korea are rapidly adopting smart manufacturing, automation, and digital solutions. Strong government programs promoting Industry 4.0 and investments in 5G infrastructure are accelerating market

adoption. Additionally, a large manufacturing base and rising demand for energy-efficient, automated operations enhance IIoT deployment. Global players are expanding their presence across the region, further driving growth. With rising industrial activity and digital adoption, Asia-Pacific is emerging as the fastest-growing IIoT market worldwide.

Key players in the market

Some of the key players in Industrial Internet of Things (IIoT) Market include IBM Corporation, Cisco, Siemens, General Electric (GE), Microsoft, SAP, Schneider Electric, Rockwell Automation, ABB, Honeywell International, Intel Corporation, Huawei Technologies, Endress+Hauser, Accenture and STMicroelectronics.

Key Developments:

In September 2025, Microsoft and OpenAI said they have signed a non-binding deal for new relationship terms that would allow OpenAI to proceed to restructure itself into a for-profit company, marking a new phase of the most high-profile partnerships to fund the ChatGPT frenzy.

In June 2025, Siemens Energy and EnPot Ltd inked an agreement to cooperate at an official ceremony with New Zealand's Prime Minister Christopher Luxon in Shanghai today. The deal signals the companies' joint drive to accelerate the decarbonisation of China's energy-intensive primary aluminium industry. Together, EnPot and Siemens Energy will offer solutions to enable intelligent energy management and power modulation for aluminium smelters.

In May 2025, Cisco will enter a multi-year artificial intelligence partnership with Saudi Arabia, joining its HUMAIN initiative to accelerate the country's AI development. The networking and security company has partnership aims to build the world's most open, scalable, resilient and cost-efficient AI infrastructure, and position Saudi Arabia as a global leader in digital innovation.

Components Covered:

Hardware

Software

Services

Connectivity Types Covered:

Wired

Wireless

Deployment Modes Covered:

On-Premises

Cloud-Based

Edge-Cloud Hybrid

Applications Covered:

Predictive Maintenance

Asset Optimization

Environmental Monitoring

Process Automation

Energy Efficiency Management

End Users Covered:

Discrete Manufacturing

Process Manufacturing

Energy & Utilities

Oil & Gas

Transportation & Logistics

Healthcare

Agriculture

Mining & Metals

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

Industrial Internet of Things (IIoT) Market Forecasts to 2032 – Global Analysis By Component (Hardware, Softwa...

- 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

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Application Analysis
- 3.7 End User Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY COMPONENT

- 5.1 Introduction
- 5.2 Hardware
- 5.3 Software
- 5.4 Services

6 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY CONNECTIVITY TYPE

- 6.1 Introduction
- 6.2 Wired
- 6.3 Wireless

7 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY DEPLOYMENT MODE

- 7.1 Introduction
- 7.2 On-Premises
- 7.3 Cloud-Based
- 7.4 Edge-Cloud Hybrid

8 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Predictive Maintenance
- 8.3 Asset Optimization
- 8.4 Environmental Monitoring
- 8.5 Process Automation
- 8.6 Energy Efficiency Management

9 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY END USER

- 9.1 Introduction
- 9.2 Discrete Manufacturing
- 9.3 Process Manufacturing
- 9.4 Energy & Utilities
- 9.5 Oil & Gas
- 9.6 Transportation & Logistics

- 9.7 Healthcare
- 9.8 Agriculture
- 9.9 Mining & Metals

10 GLOBAL INDUSTRIAL INTERNET OF THINGS (IIOT) MARKET, BY GEOGRAPHY

- 10.1 Introduction
- 10.2 North America
 - 10.2.1 US
 - 10.2.2 Canada
 - 10.2.3 Mexico
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.2 UK
 - 10.3.3 Italy
 - 10.3.4 France
 - 10.3.5 Spain
 - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
 - 10.4.1 Japan
 - 10.4.2 China
 - 10.4.3 India
 - 10.4.4 Australia
 - 10.4.5 New Zealand
 - 10.4.6 South Korea
 - 10.4.7 Rest of Asia Pacific
- 10.5 South America
 - 10.5.1 Argentina
 - 10.5.2 Brazil
 - 10.5.3 Chile
 - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
 - 10.6.1 Saudi Arabia
 - 10.6.2 UAE
 - 10.6.3 Qatar
 - 10.6.4 South Africa
 - 10.6.5 Rest of Middle East & Africa

11 KEY DEVELOPMENTS

- 11.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 11.2 Acquisitions & Mergers
- 11.3 New Product Launch
- 11.4 Expansions
- 11.5 Other Key Strategies

12 COMPANY PROFILING

- 12.1 IBM Corporation
- 12.2 Cisco
- 12.3 Siemens
- 12.4 General Electric (GE)
- 12.5 Microsoft
- 12.6 SAP
- 12.7 Schneider Electric
- 12.8 Rockwell Automation
- 12.9 ABB
- 12.10 Honeywell International
- 12.11 Intel Corporation
- 12.12 Huawei Technologies
- 12.13 Endress+Hauser
- 12.14 Accenture
- 12.15 STMicroelectronics

List Of Tables

LIST OF TABLES

- Table 1 Global Industrial Internet of Things (IIoT) Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global Industrial Internet of Things (IIoT) Market Outlook, By Component (2024-2032) (\$MN)
- Table 3 Global Industrial Internet of Things (IIoT) Market Outlook, By Hardware (2024-2032) (\$MN)
- Table 4 Global Industrial Internet of Things (IIoT) Market Outlook, By Software (2024-2032) (\$MN)
- Table 5 Global Industrial Internet of Things (IIoT) Market Outlook, By Services (2024-2032) (\$MN)
- Table 6 Global Industrial Internet of Things (IIoT) Market Outlook, By Connectivity Type (2024-2032) (\$MN)
- Table 7 Global Industrial Internet of Things (IIoT) Market Outlook, By Wired (2024-2032) (\$MN)
- Table 8 Global Industrial Internet of Things (IIoT) Market Outlook, By Wireless (2024-2032) (\$MN)
- Table 9 Global Industrial Internet of Things (IIoT) Market Outlook, By Deployment Mode (2024-2032) (\$MN)
- Table 10 Global Industrial Internet of Things (IIoT) Market Outlook, By On-Premises (2024-2032) (\$MN)
- Table 11 Global Industrial Internet of Things (IIoT) Market Outlook, By Cloud-Based (2024-2032) (\$MN)
- Table 12 Global Industrial Internet of Things (IIoT) Market Outlook, By Edge-Cloud Hybrid (2024-2032) (\$MN)
- Table 13 Global Industrial Internet of Things (IIoT) Market Outlook, By Application (2024-2032) (\$MN)
- Table 14 Global Industrial Internet of Things (IIoT) Market Outlook, By Predictive Maintenance (2024-2032) (\$MN)
- Table 15 Global Industrial Internet of Things (IIoT) Market Outlook, By Asset Optimization (2024-2032) (\$MN)
- Table 16 Global Industrial Internet of Things (IIoT) Market Outlook, By Environmental Monitoring (2024-2032) (\$MN)
- Table 17 Global Industrial Internet of Things (IIoT) Market Outlook, By Process Automation (2024-2032) (\$MN)
- Table 18 Global Industrial Internet of Things (IIoT) Market Outlook, By Energy Efficiency

Management (2024-2032) (\$MN)

Table 19 Global Industrial Internet of Things (IIoT) Market Outlook, By End User (2024-2032) (\$MN)

Table 20 Global Industrial Internet of Things (IIoT) Market Outlook, By Discrete Manufacturing (2024-2032) (\$MN)

Table 21 Global Industrial Internet of Things (IIoT) Market Outlook, By Process Manufacturing (2024-2032) (\$MN)

Table 22 Global Industrial Internet of Things (IIoT) Market Outlook, By Energy & Utilities (2024-2032) (\$MN)

Table 23 Global Industrial Internet of Things (IIoT) Market Outlook, By Oil & Gas (2024-2032) (\$MN)

Table 24 Global Industrial Internet of Things (IIoT) Market Outlook, By Transportation & Logistics (2024-2032) (\$MN)

Table 25 Global Industrial Internet of Things (IIoT) Market Outlook, By Healthcare (2024-2032) (\$MN)

Table 26 Global Industrial Internet of Things (IIoT) Market Outlook, By Agriculture (2024-2032) (\$MN)

Table 27 Global Industrial Internet of Things (IIoT) Market Outlook, By Mining & Metals (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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