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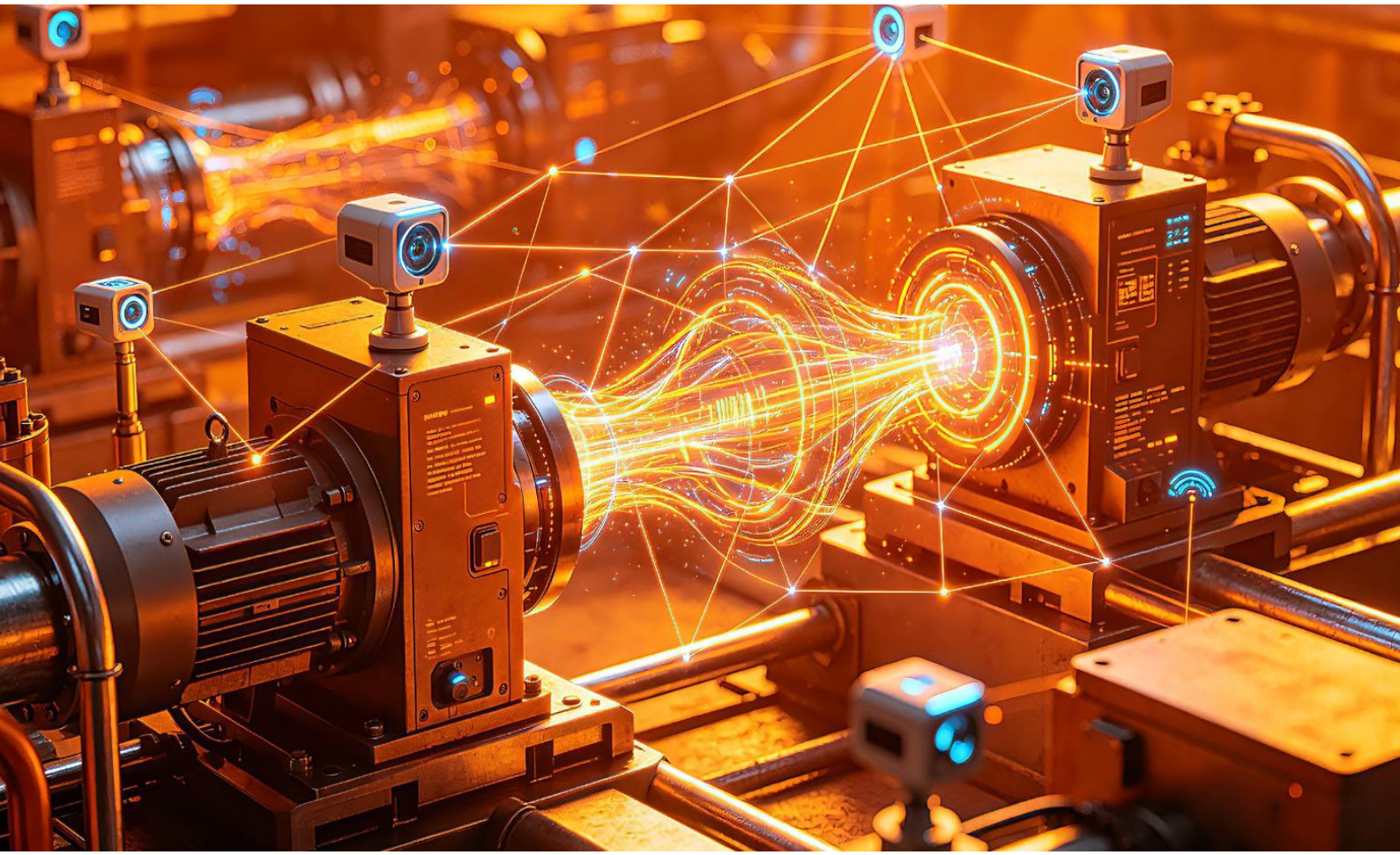

Global Business Internet of Things (BIoT) Industry Report

Executive Summary

The global Business Internet of Things (BIoT) solution market has maintained steady growth and the industry has evolved into the BIoT 3.0 phase driven by cloud-edge collaboration and AI-enabled low-code development, with Android-based solutions penetrating rapidly on the strength of their open-source advantages and emerging as the sector's core growth engine.

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1. Market Overview

1.1 Market Definition

Business Internet of Things (BIoT) applies IoT technologies to commercial scenarios with smart hardware and supporting software, helping merchants boost efficiency, make data-based decisions and meet consumer demands timely. The three evolutionary stages of the BIoT industry are as follows.

BIoT 1.0 : Single-function hardware & software

BIoT 2.0 : Smart OS & scalable solutions

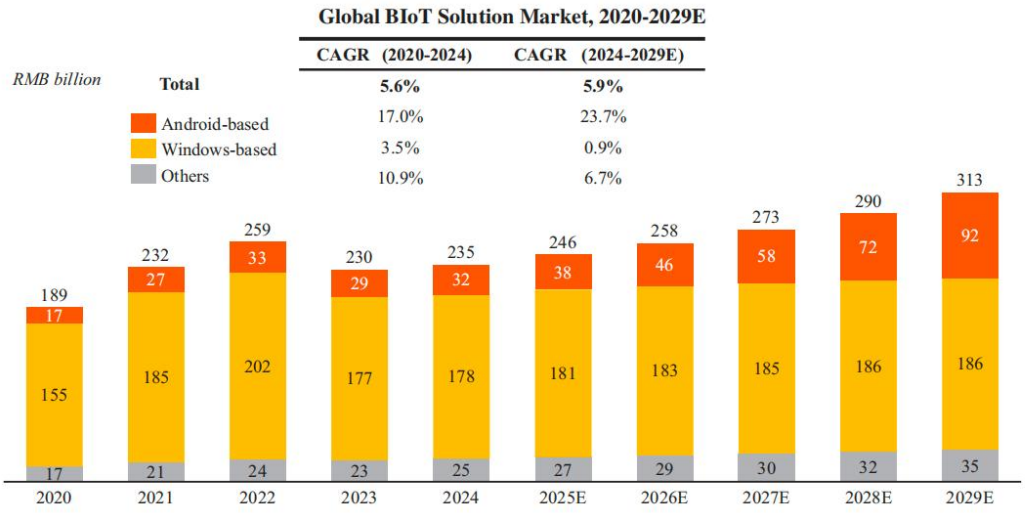
BIoT 3.0 : Cloud-edge & AI low-code drive digitalization

1.2 Market Size of BIoT Solution

The global BIoT solution market has maintained steady growth, expanding from RMB189 billion in 2020 to RMB235 billion in 2024 at a CAGR of 5.6%. Widely used in retail and food services, it will expand into more sectors amid digital transformation and device upgrades. It is forecast to reach RMB313 billion by 2029 at a 5.9% CAGR, with sustained demand and large growth potential.

In terms of product landscape, Windows-based solutions historically dominated the market via early adoption and desktop-oriented

deployments, while Android-based solutions are seeing rising penetration thanks to their open-source advantages, faster customization and iteration, and wider application support.

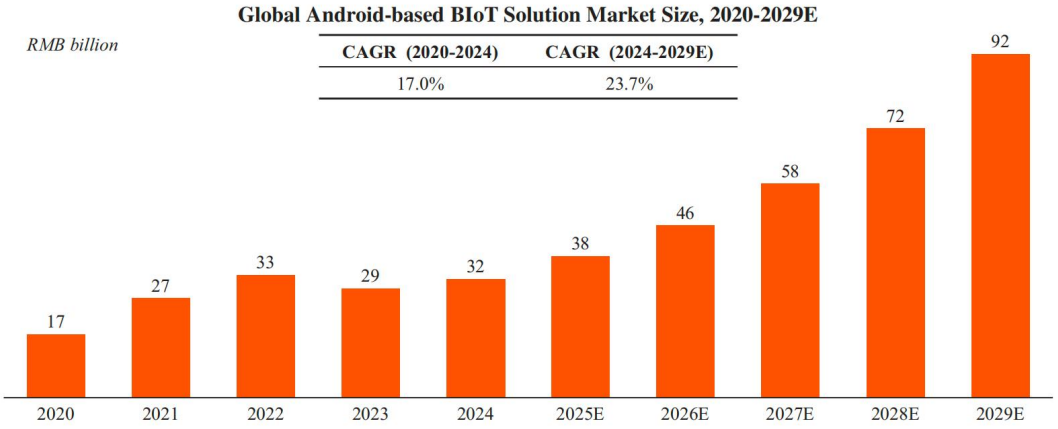


Source: Industry expert interviews, CIC Reports

1.3 Market Size of Android-based BIoT Solution

Android-based BIoT solutions leverage Android's open-source nature and integrate IoT, AI and big data into commercial systems to boost operational efficiency and user experience. The global market stood at RMB32 billion in 2024 and is forecast to reach RMB92 billion by 2029 at a 23.7% CAGR, with its penetration in the overall BIoT market rising from 14% to 29%, driven by Android's high compatibility enabling wide functional support and faster commercial adoption. In 2024, the APMEA market reached RMB14 billion (RMB10 billion from China), while

the Americas and Europe recorded RMB11 billion and RMB7 billion respectively.



Source: Industry expert interviews, CIC Reports

The Android-based BIoT solution market has two provider types: integrated hardware-software players dominated with a 75% share in 2024, while specialized single-segment players made up the remaining 25% in a fragmented market. Beyond this competitive landscape, Android-based BIoT solutions and AI have upgraded smart devices from basic tools to ecosystem hubs. BIoT 3.0 players leverage these hubs to help merchants optimize operations and expand efficiently, with the global addressable market for such solution providers estimated at around RMB3.4 trillion.

2. Key Growth Drivers

2.1 Key Drivers

Technological Advancements, Cost Efficiency and Ecosystem Expansion

Advances in AI, cloud computing, edge computing and connectivity technologies, together with improvements in chips, networks and open-source platforms such as Android, have lowered the cost and complexity of BIoT deployment. At the same time, the expansion of open ecosystems, including operating systems, developer communities and PaaS toolkits, has accelerated application development and broadened adoption.

Digitalization Initiatives Across Vertical Industries

The growing demand for digital and data-driven operations is accelerating the replacement of legacy systems with integrated smart devices and solutions across sectors such as retail, food service, logistics and manufacturing, thereby driving the adoption of BIoT terminals, platforms and services.

Policy Support

Government policies in major markets continue to promote

digitalisation and IoT adoption, supporting the deployment of BIoT devices, platforms and applications across industries.

2.2 Key Opportunities Emerging with BIoT 3.0

BIoT 3.0 serves as an enterprise digital gateway, cutting digital transformation costs, empowering SMEs, and deepening software-hardware integration via device-based ecosystem hubs. Driven by openness, software-hardware synergy and cloud intelligence, it reduces development barriers through integrated platforms, open-source PaaS components and templates, and will fuel next-phase industry growth and wider cross-sector digital commerce adoption. Key opportunities include:

Smart Devices as Ecosystem Hubs

With AI technologies becoming more widely used across industries, smart devices are emerging as ecosystem hubs. These devices can combine AI processing, edge computing, and sensor networks, allowing different systems to work together more seamlessly. This interconnectivity enables the development of more intelligent solutions and allows developers to adapt tools to a wider variety of industries and use cases.

PaaS and Software Integration

BIoT 3.0 supports a modular PaaS structure that simplifies the development of applications. By offering reusable solution components, this approach helps developers to develop and launch software faster, especially for niche or long-tail business needs, without having to build everything from scratch.

Android-Based Open Architecture

By predominantly building on the Android operating system, BIoT 3.0 offers a flexible and cost-effective alternative to more closed-source or expensive platforms like Windows or iOS. This open environment allows developers to create a broader range of applications while keeping development and maintenance costs lower.

Unified Cloud-Enabled Infrastructure

With real-time cloud connectivity built into its architecture, BIoT 3.0 supports features like remote updates, cloud-based training, and functional expansion. This helps devices become smarter over time and gives businesses more agility in how they respond to changing needs or scenarios.

Continuous Data-Driven Improvement.

The data generated through BIoT deployments plays a vital role in improving commercial operations. Solution providers can use this data to refine AI models and enhance analytics capabilities, creating a self-reinforcing loop that continuously improves product performance and decision-making over time.

2.3 Future Outlook

The global BIoT industry boasts solid long-term growth momentum. Technological advances in AI, cloud computing, edge computing and Android open-source ecosystems will continue to lower the cost and technical barriers of BIoT deployment.

Deepening digital transformation across vertical industries, paired with supportive policies for digital economy and IoT development in major markets, will drive wider penetration of BIoT solutions. In the BIoT 3.0 stage, smart devices will play an increasingly prominent role as ecosystem hubs. Modular PaaS development, cloud-edge collaboration and data-driven continuous iteration will become core industry trends, advancing deeper software-hardware synergy and enabling efficient digital upgrading for more merchants.

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CIC helps enterprises refine scalable business models and craft compelling capital narratives to enable seamless access to global capital markets, while serving as a trusted due diligence partner to investment institutions. It delivers granular industry insights and direct access to subject matter experts, empowering clients to identify high-value opportunities and mitigate critical risks effectively.

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CIC Reports & Industry Overview

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All statistical data presented is verifiable and grounded in information available as of the date of this report.

Extracts are refined summaries of in-depth CIC industry research reports, highlighting supply and demand trends, key growth drivers, R&D trends and future outlook, etc. of various segmented fields, integrating multi-dimensional insights such as expert interviews, market surveys and industry data analysis.

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