IoT Research Series

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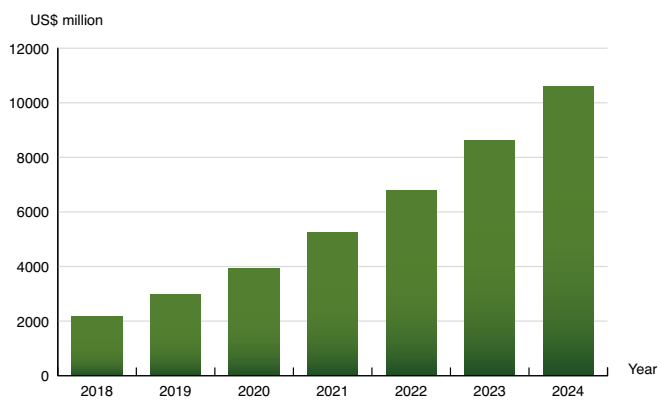
The IoT platform market to reach US$ 10.6 billion in 2024

IoT platforms provide developers with tools to connect and manage devices and integrate collected data into various applications and services. These platforms are intended to reduce the cost and development time for IoT solutions by providing standardised components that enterprises can build upon. The product category facilitates the growing trend away from time-consuming in-house developed and bespoke IoT solutions. Broadly speaking, most IoT platforms fall into one of the following three categories: connectivity management platforms, device management platforms and application enablement platforms.

Connectivity management platforms (CMPs) allow mobile operators to support their enterprise customers by providing functionality for provisioning, subscription management, cost monitoring and event management. About 71 percent of the global installed base of 1.56 billion IoT SIMs were managed using commercial connectivity management platforms (CMPs) at the end of 2019. Huawei is the leading IoT CMP vendor in terms of volume with close ties to the domestic operators China Mobile and China Telecom and managed over 750 million IoT SIMs. Whale Cloud, formerly known as ZTEsoft and partly owned by Alibaba Group since 2018, is the runner up on the Chinese market. Cisco is the dominant IoT CMP vendor outside of China with 160 million connections, followed by Vodafone and Ericsson.

Several players have entered the IoT CMP market in recent years. Mavoco delivers the IoT CMP of Nokia's WING offering, a managed service leveraging a global core network. Similarly, EMnify's and floLIVE's product concepts encompass IoT CMPs and distributed core networks deployed in key countries and regions. 1NCE provides an IoT CMP offering since mid-2019 for third-party service providers that want to address high-volume, low bandwidth use cases. Addressing enterprise pain points related to multi-platform SIM deployments, IoTM have launched a bring-your-own MNO platform, enabling management of large-scale SIM deployments through integrations with third-party CMPs. IoT CMPs are also a key component in the value proposition from IoT managed service providers such as Aeris, KORE, Sierra Wireless, Wireless Logic and Cubic Telecom.

The market for IoT device management and application enablement platforms is in a stage of transformation, driven by investments from the major cloud service Microsoft, AWS, Google and Alibaba. While IoT platform providers have always had strengths and weaknesses, recent developments have led many vendors to re-align their solutions with a renewed focus on core capabilities. In many cases, vendors that have built IoT platforms on public cloud infrastructure are transitioning to provide higher-level building blocks that can be used as a starting point when building solutions and even end-to-end solutions for specific use cases. The increased consolidation of the IoT platforms market is an overall healthy development for the IoT ecosystem and a sign of maturation. A level of fragmentation in the market will however likely remain due to specific requirements in industries characterised by mission critical applications such as automotive, healthcare, manufacturing and utilities. Berg Insight estimates that the market for commercial device management and application enablement platforms grew 41 percent to reach about US$ 2.0 billion in 2019. Growing at a CAGR of 32 percent, the market value is expected to reach US$ 7.9 billion in 2024.



IoT platform market value, US$ million (World 2018–2024)

IoT platform providers span from start-ups to major technology companies, device makers and industrial software vendors. In the industrial sector, PTC continues to expand, leveraging its strategic alliances with Rockwell Automation and Microsoft. Both Microsoft and AWS have recently put efforts into providing more capabilities for edge devices, while extending their reach into the industrial markets. The business software vendors SAP and Oracle increasingly focus on enabling customers to integrate IoT data to their existing business applications by adding built-in integrations and extensibility features. Asset-heavy companies like GE and Hitachi leverage their expertise in both the operational technology and information technology domains to help customers increase asset performance and process efficiency. Important IoT platform providers with high involvement in the industrial sector further include the vendors Altair Engineering, Bosch, Davra, Device Insight, Eurotech, Exosite, Relayr, Software AG and Waylay. Vendors with strong device management capabilities such as Amplía, AVSystem, IoTerop, Nokia and Pelion have a strong market presence within the utilities sector. In the automotive space, several large automotive OEMs have chosen commercial IoT platforms from vendors such as Alibaba, AWS, Bosch, Huawei, Microsoft and Tencent to support their connected car efforts.

This report answers the following questions:

- Which trends and developments are shaping the IoT platform market?
- What are the benefits of using commercial IoT platforms?
- Who are the leading providers of IoT connectivity, device management and application enablement platforms?
- What are the main drivers behind the adoption of IoT platforms?
- Which are the leading IoT platform vendors in the major market verticals?
- What are the key features of the application enablement platforms available today?
- Which mobile operators have deployed IoT connectivity management platforms from third party vendors?
- What is the potential market size for commercial IoT platforms?

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Glossary

About the Author

Fredrik Stålbrand is a Senior IoT Analyst with a Master's degree in Industrial Engineering and Management from Chalmers University of Technology. He joined Berg Insight in 2016 and his areas of expertise include cellular IoT hardware, IoT platforms and IoT/M2M applications in the industrial markets.

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