**IoT Platforms and Software** is the second strategy report from Berg Insight analysing the latest developments on the M2M connectivity management, device management and application enablement platform markets.

This strategic research report from Berg Insight provides you with 200 pages of unique business intelligence including 5-year industry forecasts and expert commentary on which to base your business decisions.

**Highlights from this report:**
- **360-degree** overview of the M2M/IoT ecosystem.
- **Summary** of the latest industry trends and developments.
- **Updated** in-depth profiles of key players in the M2M/IoT platform market.
- **Reviews** of the market strategies of leading platform vendors.
- **Perspectives** on the evolution from vertical M2M solutions to the broader scale and scope of the IoT.
- **Extensive** global market forecasts lasting until 2021.

**Berg Insight’s M2M Research Series**
What are the key business opportunities in the emerging wireless M2M/IoT market? Berg Insight’s M2M Research Series is a unique series of 25 market reports published on a regular basis. Each title offers detailed analysis of a specific vertical application area such as smart metering, fleet management or vehicle telematics. Once per year we also publish summaries of our research with detailed forecasts for the Global and European wireless M2M markets, respectively.

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What are the latest trends on the IoT platforms market?

The world of machine-to-machine (M2M) communication is gradually moving from vertical, single purpose solutions to multi-purpose and collaborative applications interacting across industry verticals, organisations and people – the Internet of Things (IoT). The use of the new term IoT suggests a transition in the evolution of connected devices, with accelerating scale and scope, as well as higher focus on interoperability. M2M often signifies customised solutions deployed within single industry verticals or by one company to improve existing business operations. IoT puts more emphasis on integration of sensors, devices and information systems across industry verticals and organisations to transform operations and enable new business models. IoT focuses on gaining new insights from analytics based on data from diverse sources to support decision making, and improve and create entirely new products and services. There is a wide range of software platforms available, intended to reduce cost and development time for IoT solutions by offering standardised components that can be shared across many industry verticals to integrate devices, networks and applications. These third party IoT platforms are relatively new in the market and display a great diversity in terms of functionality.

Broadly speaking, most IoT platforms fall into one of the following three categories: connectivity management platforms, device management platforms and application enablement platforms. Berg Insight estimates that total revenues for third party IoT platforms will grow at a compound annual growth rate (CAGR) of 30.8 percent from € 610 million in 2015 to € 3,050 million in 2021. This growth is driven by an increase in the number of companies adopting third party platforms for a growing number of projects that gradually expand from pilots and initial rollouts to full deployments. Over time, many companies will also migrate existing proprietary M2M/IoT solutions to third party platforms.

Connectivity management platforms facilitate the delivery of data communication services on communication networks. Features like private APNs, fixed IP addressing and secure VPNs offer more flexibility and better reliability. Device and subscription management features like automated provisioning, activation/deactivation, as well as activity reporting provide improved visibility and control. Several mobile operators still use proprietary connectivity platforms developed in-house, while other operators have adopted third-party solutions from vendors such as Cisco Jasper and Ericsson. Many companies deploying IoT solutions choose to buy connectivity services from IoT managed service providers like Aeris Communications, KORE Telematics and Stream Technologies. A key differentiator for IoT managed service providers versus mobile operators is the ability to aggregate multiple networks and thus provide superior area coverage, multi-domestic footprints and multi-technology connectivity.

Device management platforms enable remote management of IoT devices. Purpose-built device platforms enable a rich set of functionalities for remote management, diagnostics, OTA software updates and lifecycle management. It is often difficult to make a clear distinction between the most fully featured device management platforms and application enablement platforms. Many platforms from device vendors including Eurotech, Gemalto, Sierra Wireless and Telit, as well as platforms from companies like BlackBerry, Bosch, Cumulocity and Nokia could be described as device clouds or IoT integration platforms that provide both device management and application enablement functionality.

Application enablement platforms (AEPs) are designed to accelerate and simplify the development of IoT solutions, providing common components that can be re-used across industries and market segments. AEPs enable companies to focus on differentiation created by unique capabilities and insights from data rather than duplicating non-differentiating functionality such as connectivity integration, device management, data collection, data storage and analytics. Application enablement platforms also provide integration frameworks adapted for common enterprise IT systems such as ERP, CRM and business intelligence. In order to protect data and enable data exchange across multiple applications and data sources, AEPs need strong security architectures and user authorisation management systems. The market for AEPs is still in a relatively early phase in terms of adoption. However, the segment is seeing considerable activity in terms of M&A and new entrants. After PTC acquired ThingWorx and Axeda, other major software and IT companies have bought AEP developers. Examples include Amazon that acquired 2lemetry, Autodesk that acquired SeeControl and Microsoft that acquired Solar. Other leading IT companies that are extending their service offerings to include IoT platforms – often focusing on analytics and machine learning – include IBM, SAP and Oracle. As a group, AEP vendors primarily face competition from system integrators and companies that develop similar functionality in-house.

This report answers the following questions:

- Which trends and developments are shaping this market?
- What are the benefits of using third party M2M/IoT platforms?
- Who are the leading providers of M2M connectivity, device management and application enablement platforms?
- What are the main drivers behind the adoption of M2M/IoT platforms in major industries?
- What are the key features of the application enablement platforms available today?
- Which mobile operators have deployed M2M connectivity platforms?
- What is the potential market size for third party M2M/IoT platforms?
# 1 The M2M and IoT ecosystem

## 1.1 Introduction

### 1.1.1 Evolution of M2M and IoT

### 1.1.2 IoT interoperability standardisation

### 1.1.3 Core elements of IoT solutions

### 1.1.4 IoT platforms and software

## 1.2 Devices

### 1.2.1 Chipsets, modules and terminals

### 1.2.2 Device design and machine integration

## 1.3 IoT networks and technologies

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### 1.3.2 LPWA and satellite technologies

### 1.3.3 WLAN/WPAN technologies

## 1.4 Key vertical markets

### 1.4.1 Automotive

### 1.4.2 Industrial automation

### 1.4.3 Smart grids

### 1.4.4 Smart cities and intelligent traffic systems

### 1.4.5 Smart homes and building automation

### 1.4.6 Consumer electronics and small appliances

## 1.5 Solution providers and system integrators

### 1.5.1 Device manufacturers

### 1.5.2 System integrators

### 1.5.3 Vertical ASPs

### 1.5.4 B2B/B2C service providers

### 1.5.5 OEMs

## 2 Software and IT services

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### 2.1.1 Embedded operating systems

### 2.1.2 High-level general-purpose programming languages

### 2.1.3 Scripting languages

### 2.2 Enterprise IT systems and services

### 2.2.1 Infrastructure-as-a-Service and Platform-as-a-Service solutions

### 2.2.2 ERP, CRM, database management systems and analytics systems

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#### 2.3.2 Microsoft

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### 3.2.4 Digi International

### 3.2.5 Actility

### 3.2.6 ARM

### 3.2.7 Aranyent

### 3.2.8 Ayla Networks

### 3.2.9 Bug Labs

### 3.2.10 Capricode

### 3.2.11 Electric Imp

### 3.2.12 Eurotech

### 3.2.13 Intel

### 3.2.14 InterDigital

### 3.2.15 Kombridge

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#### 5.2.7 Carriots

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#### 5.2.9 Convio

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#### 5.2.11 Davra Networks

#### 5.2.12 Device Insight

#### 5.2.13 EVRYTHNG

#### 5.2.14 Exosite

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#### 5.2.16 MachineShop

#### 5.2.17 M2Mi

#### 5.2.18 Octoblu

#### 5.2.19 PLAT.ONE

#### 5.2.20 PTC

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## Glossary
Who should buy this report?  Related products

**IoT Platforms and Software** is the foremost source of information about third party M2M/IoT platforms and related software for M2M/IoT solutions. Whether you are a device vendor, system integrator, service provider, telecom operator, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

- The Global M2M/IoT Communications Market
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