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IoT Devices & Components Intelligence Service

Part of the IoT Technologies & Verticals Service Area Package

Provides a comprehensive view on the components, devices, and connectivity technologies coming together to drive the Internet of Things.

PRODUCT OVERVIEW | IoT Devices & Components Intelligence Service

“The world continues to become more connected, at more levels and in more ways, as enterprises streamline and automate processes, resulting in an invisibly intelligent operation, integrating everything from the smallest, most remote sensor to the most powerful central server.

Edward Wilford
Senior Principal Analyst

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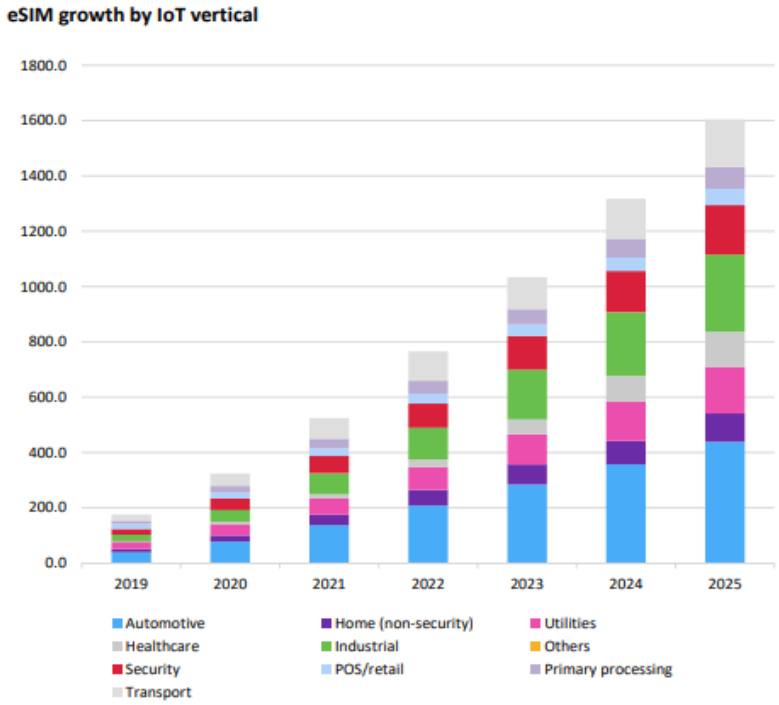

Source: Omdia

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HOW OMDIA HELPS YOU

- Analysis and granular forecasts for modules and ICs used in cellular, low-power wireless and high performance wireless IoT
- Up-to-date shipment and installed base data on IoT devices spanning 25 application categories.
- Market share data and competitive analysis for key suppliers for cellular modules and low-power ICs
- Examination of other key IoT hardware to include gateways and sensors
- Topical reports with further insight into areas such as new wireless technologies and regional dynamics
- Vertical market growth opportunities with specific focus on smart cities.

KEY QUESTIONS ADDRESSED

What is the current adoption of 5G in IoT and what is the outlook by use case (eMBB, massive IoT, URLLC) and region?

Are unlicensed LPWAN technologies gaining more traction and in which IoT applications are they experiencing the greatest uptake?

Which verticals are driving the IoT at the greatest rate? What are the key drivers and challenges in areas like smart cities?

What can we expect for adoption of WiFi6 Ultra wideband (UWB) in IoT?

How are the emergence of Chinese vendors impacting the module market?

What semiconductor vendors are leading the market in low power wireless shipments?

Who are the leading service providers in terms of cellular connections?

IoT Devices & Components: Our Expert Analysts

Andrew Brown
Practice Lead
IoT Services & Technologies

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Senior Principal Analyst
IoT Hardware

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IoT Devices & Asia & Oceania Activity

IoT Devices & Components: Deliverables

MARKET TRACKERS

- High Performance Wireless
- Low Power Wireless
- IoT Devices

SURVEYS

- IoT Enterprise Survey: Executive Summary
- IoT Enterprise Survey: US
- IoT Enterprise Survey: Brazil
- IoT Enterprise Survey: Asia & Oceania

REPORTS

- IoT Data Traffic: From Cloud to Edge
- IoT GPUs
- Matter at One Year

CASE STUDIES

- Smart City Profiles
- IoT & Sustainability case studies (Multiple)
- IoT Startup Solution Provider Profiels

ANALYST INSIGHTS

Analyst commentary on market shifts, technology and regional developments, vendors, events, and more.

ANALYST ACCESS

Prompt responses from Omdia's regional analyst team to urgent and unique questions.

IoT Devices & Components: Market Data

IoT Devices Market Tracker

Provides data and forecasts for IoT installed base and IoT device shipments by region (Americas, Asia & Oceania, and EMEA) and splits by connectivity technology at a global level for 33 connectivity technologies.

DETAILS

Frequency: Bi-annually

Measures
- Installed based of Internet-connectable devices (2015-30)
- Shipments of Internet-connectable devices (2015-30)
- Connectivity ICs by application type (2018-2024)
- Connectivity Modules by application type (2018-2024)

Regions
- Worldwide
- Americas
- EMEA
- APAC

Technologies
- 2G cellular
- 3G cellular
- 4G cellular
- 5G cellular
- 802.11a/b/g
- 802.11a/b/g | Bluetooth 802.11ac
- 802.11ac | Bluetooth
- 802.11ad
- 802.11.ax
- 802.11ax | Bluetooth
- 802.11n
- 802.11n | Bluetooth
- ANT +
- ANT + | Bluetooth Low Energy
- Bluetooth Low Energy
- Bluetooth Classic & Dual-Mode
- Cellular LPWAN
- DECT ULE
- EnOcean
- ISA100.11a
- Non-cellular LPWAN
- Other 2.4 GHz
- Other 802.15.4
- Other Sub-GHz
- Thread
- Wired
- Wireless Hart
- ZigBee Multi-Protocol
- ZigBee PRO
- ZigBee RF4CE
- Z-Wave

Verticals & Applications

Automotive & Transportation
- Aerospace & military
- Automotive - commercial transportation
- Automotive – light vehicles

Commercial & industrial electronics
- Commercial electronics
- Industrial automation
- Other commercial & industrial electronics
- Power & energy
- Security & building automation

Communications
- Backbone
- Consumer CPE
- Enterprise CPE
- Licensed mobile radio terminals & infrastructure
- Mobile handsets & infrastructure

Computers
- Desktop
- Portable computers
- Servers

Consumer
- Consumer – other
- Home appliances
- Home automation
- Home CE
- PC peripherals and printers
- Sports, fitness, and activity

Medical
- Clinical care devices
- Consumer medical devices

IoT Devices & Components: Market Data

Low Power Wireless Market Tracker

This quarterly report includes updates to the low-power wireless market tracker. Provides market sizes and forecasts of low-power wireless semiconductor shipments segmented by technology and application.

DETAILS

Frequency: Bi-annually

Measures
- IC unit shipments
- Revenues
- Average selling prices (ASPs)

Regions
- Worldwide
- Americas
- EMEA
- APAC

Segments
- Application
- Frequency
- Integration type
- Technology

Technologies
- ANT
- ANT|BLE
- Bluetooth Low Energy
- DECT ULE
- EnOcean
- LoRa
- Sigfox
- Thread
- UWB
- WirelessHART
- Zigbee Multi-Protocol
- Zigbee PRO
- Zigbee RF4CE
- Z-Wave
- Other 2.4 GHz
- Other 802.15.4
- Other Sub GHz

Applications
- Agriculture & Environment
- Asset Tracking
- Audio
- Automotive
- Beacons & Proximity
- Building Automation
- Consumer Health
- Energy Production
- Home Appliances
- Home Automation
- Home CE
- Industrial Automation
- Lighting
- Municipal Infrastructure
- PC Peripherals
- Security
- Smart Metering
- Smartphone
- Smart Toys
- Smart Watch
- Sports & Fitness
- Wireless Charging
- Other Commercial Applications
- Other Consumer Applications
- Other Industrial Applications

IoT Devices & Components: Market Data

High Performance Wireless Market Tracker

This market tracker covers high-performance wireless technologies often found in platform devices such as smartphones, tablets, laptops, digital voice assistants, digital streaming media players, and many others.

DETAILS

Frequency: Bi-annually

Measures
- Device shipments
- IC shipments & revenue
- Module shipments & revenue
- **Regions**
- Worldwide
- Americas
- EMEA
- APAC

Segments
- Technology
- Protocol
- MIMO
- WLAN IC integration level
- Bluetooth type

Technologies
- 802.11 a/b/g
- 802.11 n
- 802.11 ac Wave1
- 802.11 ac Wave2
- 802.11 ad
- 802.11 ax
- 802.11 ay
- Bluetooth Classic/Smart Ready
- Ethernet
- GPS
- NFC

Verticals & Applications

Automotive
- Auto Infotainment Systems
- Auto Telematics Units
- Consumer OBD-II Dongles

Consumer CPE
- Access Points and Routers
- Cable CPE
- DSL CPE

Desktop Computing
- Desktop PCs

Enterprise CPE
- Carrier Access Points
- Enterprise Access Points

Home Appliance
- Dish Washers
- Dryers
- Large Cooking Appliances
- Refrigerators
- Room Air Conditioners
- Washing Machines

Home Automation
- Consumer and DIY Video
- Digital Voice Assistants
- Garage Door Operators
- Smart Door Locks
- Smart Fire Detectors
- Smart Plugs
- Smart Thermostats
- Wireless Video Doorbells
- Consumer OBD-II Dongles

Home CE
- Blu-ray DVD players
- Digital Cordless Phones
- Digital Picture Frames
- Home Audio Devices
- OTT Set-Top Boxes
- Paid and FTA Set-top Boxes
- Televisions
- Video Game Consoles

Industrial Automation
- Remote Terminal Units

Lighting
- Residential Lighting

Mobile Handsets
- Feature Phones
- Smartphones

PC Peripherals
- PC Peripherals
- Personal Enterprise Printers
- Video Game Controllers
- WLAN Client Access

Portable CE
- Bluetooth Headphones
- Bluetooth Headsets
- Digital Camcorders
- Digital Cameras
- E-readers
- Handheld Game Consoles
- MP3 Players
- PNDs
- Smart Watches

Portable Computing
- Mobile PCs
- Tablets

IoT Devices & Components: Market Data

Cellular IoT Market Tracker

This analysis provides the latest updates on the global cellular IoT market in five regions, nine applications, and 10 air interfaces.

DETAILS

Frequency: Bi-annually

Measures
- Cellular IoT connections
- Cellular IoT connection revenue
- Cellular IoT module shipments
- Cellular IoT module revenue

Regions
- North America
- Latin America
- Europe
- Middle East & Africa
- Asia Pacific

Technologies
- 3GPP-standard cellular technologies used in IoT applications

Applications
- Automotive
- Consumer
- Energy & Utilities
- Healthcare
- Industrial IoT
- Others
- Remote Monitoring
- Retail & Payments
- Smart Cities
- Transportation & Logistics

Air Interface
- 2G: GSM/GRPS/EDGE, CDMA 1xRTT
- 3G: CDMA/HSPA/CDMA EV-DO
- 4G: Cat-1, Cat 3/4, Highspeed LTE
- 5G: eMBB, URLLC, C-V2X, Massive IOT
- LPWA: LTE-M, NB-IoT

Smart Cities Project Database

Excel database that logs, classifies, and details over 2,400 publicly announced IoT smart city projects dating back to 2000.

DETAILS

Frequency: Bi-annually

Measures
- Project customer and scale
- Project partners
- Project vertical/applications

Regions
- Country, city-level analysis

Mobility & Transport
- Smart ticketing
- Smart parking
- Vehicle-to-X communications
- Intelligent transport systems
- Autonomous vehicles

Governance
- Mobile reporting apps
- Consolidated services and platforms

Energy & Resource Efficiency
- Smart grid
- Smart metering
- Irrigation management
- V2G

Healthcare
- Telehealth
- Remote patient monitoring

Physical Infrastructure
- Smart street lighting
- Smart buildings
- Environmental sensors
- Waste management

Safety & Security
- Integrated video surveillance
- Predictive analytics
- Safe city platforms

IoT Devices & Components – 2023 Schedule

Report
Forecast
Tracker

Q1	Q2	Q3	Q4
• High Performance Wireless Market Tracker – 1H23 Database • High Performance Wireless Market Tracker – 1H23 Analysis • Wireless Audio Report 2023 Analysis • Wireless Audio Report 2023 Data	• Findings from Embedded World 2023 • IoT & Sustainability Case Study • Low Power Wireless Market Tracker – 1H23 Database • Low Power Wireless Market Tracker – 1H23 Analysis and Vendor Shares • IoT Devices Market Tracker – 1H23 Database • IoT Devices Market Tracker – 1H23 Analysis • Cellular IoT Module Market Shares Report – 1H23 • FPGAs at the Edge	• IoT Gateways 2023 Update • IoT Enteprise Survey Country Report: US • IoT Startup Solution Provider Profiles • Low Power Wide Area Network Market Report – 2023 Analysis • Low Power Wide Area Network Market Report – 2023 Data • IoT Application Analysis – 3Q23 • IoT Data Traffic: From Cloud to Edge – 2023 Analysis • IoT Data Traffic: From Cloud to Edge – 2023 Data • High Performance Wireless Market Tracker – 2H23 Database • High Performance Wireless Market Tracker – 2H23 Analysis	• Matter at One Year • Cellular IOT Module Market Shares Report – 2H22 Update • IoT in Asia and Oceania: Understanding the Key Use Cases, Players & Trends • IoT GPUs • IOT Devices Market Tracker – 2H23 Database • IOT Devices Market Tracker – 2H23 Database • IoT Application Analysis – 4Q23 • Low Power Wireless Market Tracker – 2H23 Database • Low Power Wireless Market Tracker – 2H23 Analysis & Vendor Shares

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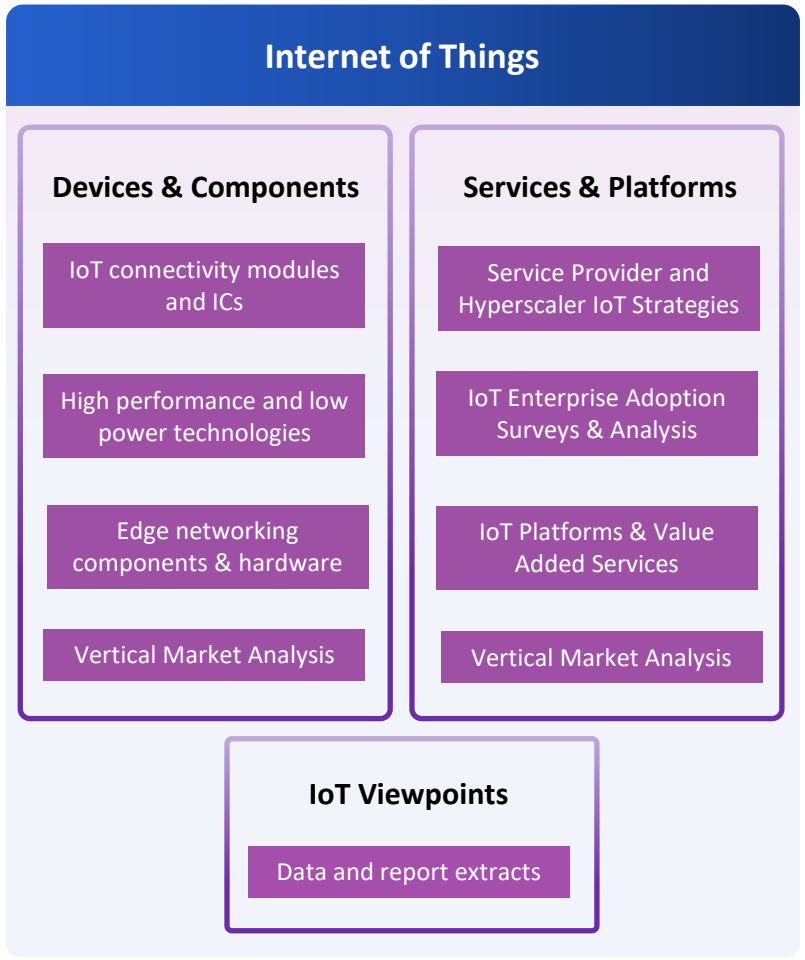
Internet of Things – 2023 Research Themes

Global economic impact on the IoT	How well-equipped is the IoT market to withstand the multiple challenges facing the technology sector, such as the squeeze on CPU supply, global inflation, the impending impact of a global recession, the war in Ukraine and impact on raw materials, employment concerns, the lingering impact of COVID-19 and new challenges created by sky-rocketing energy prices such as environmental sustainability goals and initiatives. The IoT team will produce a key report on this topic as well as covering this theme throughout several reports during 2023.
The changing IoT connectivity landscape: From 5G NR Light to Satellite	5G has been slow to have an impact on the IoT. Throughout 2023 the team will identify the key technologies to watch in IoT, including 5G NR Light (RedCap) and the path to 5G mMTC, 5G/SA and network slicing, Cat 1 bis and the prospects for Cat 1 and Satellite IoT. We will also include reports covering Automotive Connectivity and a Location Platform Index 2023 report.
Baking connectivity and intelligence into the endpoint	Within the framework of multiple technologies and protocols, connectivity can no longer simply be an afterthought; rather, it will be designed into the endpoint from day one. At the same time, expect increasing compute in all types of endpoints with smarter sensors and AI/ML influencing every stratum. 64-bit chips will continue to increase their market share, offering significantly increased processing power for endpoints of all types and giving a logarithmic boost to the amount of data being collected. Omdia's wide range of analysts with expert-level insight in the IC market will help pinpoint emerging trends and establish credible forecasts in these areas.
Hyperscaler's growing influence and a shift to partnership over proprietary	Omdia will continued coverage of the shift in power towards cloud hyperscalers. Identifying their role in the IoT ecosystem, how they fit with other IoT players, unique capabilities and use cases and outlook. There is also a growing emphasis on partnerships and collaboration in the IoT industry with larger vendors relying on agreements with a wide variety of outside partners to offer maximum value in a somewhat full field, and to mitigate the dragging effects of continued supply chain tension. Sorting out the changing face of the IoT ecosystem and partnerships is no simple task and requires Omdia's depth of knowledge in this field.

Service Area Overview



About Omdia's IoT research

Omdia provides valuable, detailed, and comprehensive research on the core elements of the IoT ecosystem. This analysis is provided via a team of expert analysts with decades of collective research experience, as well as time spent working for many of the key players within the IoT industry.

Our research portfolio spans the entire IoT value chain, from hardware components to network connectivity through IoT software platforms. Omdia's IoT research also provides insight into key vertical markets and examines the challenges, investment strategies, and supplier choices of enterprises that are in the process of deploying IoT projects.

Omdia's syndicated IoT research is delivered via three distinct Intelligence Services: IoT Devices & Components, IoT Services & Platforms and IoT Viewpoints. Through a rich collection of reports, forecasts, and surveys, each of these intelligence services provides our clients with insight into the latest IoT business and technology trends and how these issue will impact the market in the future. Our clients also enjoy access to our analyst team, thus ensuring their questions are answered completely and promptly.

Our “Ask an Analyst” Service Provides Best in Class Customer Support

Whether you need guidance to navigate the service, information regarding our methodologies or you want to better understand a data trend, Omdia’s support team is here to help.

Draw on our expertise

- Make the right decisions
- Sanity-check your own findings
- Get the most out of your subscription
- Understand more about our methodologies

Our Ask an Analyst service gives you direct contact via telephone, email or face-to-face session with our expert analyst team:

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Thank you

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