

Technology ecosystem diversity, 2H25 update

Based on 1H25 data

October 2025



Contents

| Summary | 3 |
|---|-----|
| The network, device, and cloud ecosystems are complex with many leaders | |
| In most tech ecosystems, leadership is shared, and even leaders are dependent on partners | 4 |
| Technology market leadership is largely shared between US and Chinese companies | 7 |
| Market concentration is common in technology markets | 9 |
| In network equipment markets, operators have choice | 11 |
| Market forces constantly drive changes in the vendor ecosystem | .12 |
| Appendix | 16 |





Summary

This white paper identifies key players across 23 technology domains in fixed and mobile networks, cloud, devices, semiconductors, and digital services and shows that technology ecosystems are complex and interdependent. Market leadership is shared between companies, and it also varies by region. This is the seventh update of the *Market forces create technology ecosystem diversity* white paper, initially published in June 2021 and updated in April 2022, April 2023, October 2023, April 2024, October 2024, and April 2025.

Omdia used the Herfindahl–Hirschman Index (HHI) to compare the level of concentration in these 23 technology markets. Most technology markets are moderately to highly concentrated, and only a few can be considered unconcentrated.

Mobile radio access network (RAN) and mobile core remain moderately concentrated markets, even though the level of concentration has increased slightly in both domains in 1H25.

The level of concentration in technology markets is also continually changing. For example, the RAN market consolidated during the 4G era, but in the early years of 5G, the number of RAN vendors has increased again. The open RAN movement brought a few new entrants, but it mostly gave visibility to existing smaller vendors that have been in this industry for years and are now enjoying renewed interest from service providers. Of course, many of



these new entrants and challengers currently have minimal market share, but market shares do not always reflect vendor diversity.

Omdia also warns that vendor diversity has limitations as well as benefits. At operator level, the right balance between diversity and efficiency must be found, and operators themselves are in the best position to decide the number of vendors they should partner with. At industry level, in RAN as in many other tech industries, suppliers need to achieve economies of scale to bring costs down and fund the expensive R&D required for continuous innovation in performance, functionality, energy, efficiency, and security.

This report also looks at the number of vendors currently active in fixed and mobile networks in eight countries, of which all have some form of vendor or market access restrictions in place. Despite those barriers to market access, there is still diversity, and operators are left with a sufficient pool to choose from.

Using examples, Omdia also shows that market concentration and vendor diversity are not well correlated. And though excessive levels of concentration should be regulated, ecosystem diversity should be left to market forces.

The network, device, and cloud ecosystems are complex with many leaders

In most tech ecosystems, leadership is shared, and even leaders are dependent on partners

Figure 1 illustrates in a simplified manner the key domains that constitute mobile and fixed networks and adjacent technology domains such as devices, components, and cloud services and shows some of the links that tie them together. The reality is much more complex, and there are many more technology areas, each with their own subsegments, markets, sets of players, supply chains, and links of dependence.

Market leaders, in terms of revenue market share for 1H25 (or 2024 when more recent data is not available) are listed for the different categories. Some companies are present in multiple areas, but overall global technology leadership is shared across companies and countries. Even category leaders have limited influence over the entire tech ecosystem.

For example, Apple, the leader in smartphone, is not involved in mobile or fixed networks, and Ericsson, a leader in mobile access networks, is not involved in smartphones and their



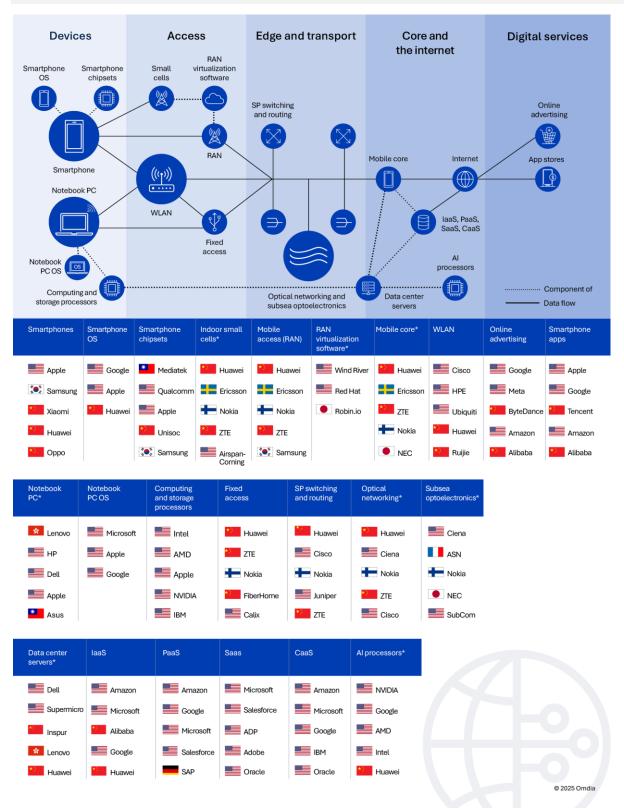
components (despite its history in mobile devices). There are also countless intricate links of dependencies between those leaders themselves and with hundreds of less visible smaller companies in the value chain, which simply cannot be shown in a single picture.

For most categories the global market leader was often the same for the first half of 2025 as in the previous update (FY24), but a look at the top five vendors indicates there were changes in several categories, which shows that markets are not static (categories with an asterisk* in **Figure 1**):

- Indoor small cells
- RAN virtualization software
- Mobile core
- Notebook PC
- Optical networking
- Subsea optoelectronics
- Data center servers



Figure 1: Fixed and mobile networks, devices, components, and cloud ecosystems





Technology market leadership is largely shared between US and Chinese companies

A glance at the national flags of the market leaders makes it obvious that the US and China enjoy something akin to a duopoly in technology ecosystems and have a high number of champions, while Europe and other regions only have a few.

When looking at the question of market leadership, it is nonetheless helpful to consider regional- or country-level specificities. Omdia observes that only in three categories (notebook PC OS, smartphone applications, and WLAN) does a single company dominate in each of the four largest regions: Europe, Middle East & Africa (EMEA); North America; Asia & Oceania; and Latin America & the Caribbean. It is not the case in RAN, mobile core, and small cells, where leadership also differs between regions.

Regional market leaders changed in several categories, which shows that markets are not static (categories with an asterisk* in **Figure 2**):

- Mobile access in EMEA
- Notebook PC in North America
- SP switching and routing in EMEA
- Data center servers in EMEA

This is only a comparison at the top of the pyramid. Behind those leaders, local ecosystems are often rich, with dozens, sometimes hundreds, of companies competing in each field and having more or less presence and commercial success from one region to the other.



Figure 2: Global and regional leadership in selected markets, based on 1H25 revenue

| | Global market leader | North America market leader | Latin America & the Caribbean | EMEA market leader | Asia & Oceania market leader |
|---------------------------------|-------------------------|--------------------------------|-------------------------------|-----------------------|---------------------------------|
| Smartphones | Apple | Apple | Samsung | Apple | Apple |
| Smartphone OS | Google | Apple | Google | Google | Google |
| Indoor small cells | Huawei | Ericsson | Huawei | Nokia | Huawei |
| Mobile access (RAN)* | *: Huawei | Ericsson | Huawei | * Huawei | Huawei |
| Mobile core | *: Huawei | Ericsson | Huawei | *: Huawei | Huawei |
| WLAN | Cisco | Cisco | Cisco | Cisco | Cisco |
| Notebook PC* | ★ Lenovo | Dell | <u>\$</u> Lenovo | ★ Lenovo | |
| Notebook PC OS | Microsoft | Microsoft | Microsoft | Microsoft | Microsoft |
| Fixed access (fiber and copper) | * Huawei | Nokia | Huawei | * Huawei | Huawei |
| SP switching and routing* | *: Huawei | Cisco | * Huawei | * Huawei | * Huawei |
| Optical networking | * Huawei | Ciena | Huawei | * Huawei | Huawei |
| Data center servers* | Dell | Dell | Supermicro | Dell | * Inspur |
| laaS | Amazon | Amazon | Microsoft | Microsoft | Alibaba |
| PaaS | Amazon | Amazon | Salesforce | Amazon | Amazon |
| CaaS | Amazon | Amazon | Microsoft | Microsoft | Amazon |
| SaaS | Microsoft | Microsoft | Salesforce | Microsoft | Microsoft |
| Online advertising | Google | Google | Meta | Google | ByteDance |
| Smartphone applications | Apple | Apple | Apple | Apple | Apple © 2025 Omdia |



Market concentration is common in technology markets

The HHI is commonly used to assess the level of concentration in a market or industry. It is calculated by squaring the market share of each company in the market then summing the resulting numbers.

According to Omdia's HHI calculations (results shown in **Figure 3**), of the 23 technology markets studied, seven were considered unconcentrated (HHI below 0.15), and none of these were among the mobile and fixed network categories. Nine were moderately concentrated (HHI between 0.15 and 0.25), five were highly concentrated (HHI between 0.25 and 0.50), and two were duopolies (HHI above 0.50).

Three of the seven categories with the highest level of concentration are consumer categories rather than B2B ones (notebook PC OS, smartphone OS, and smartphone applications). Newly added AI processors is the second most concentrated category.

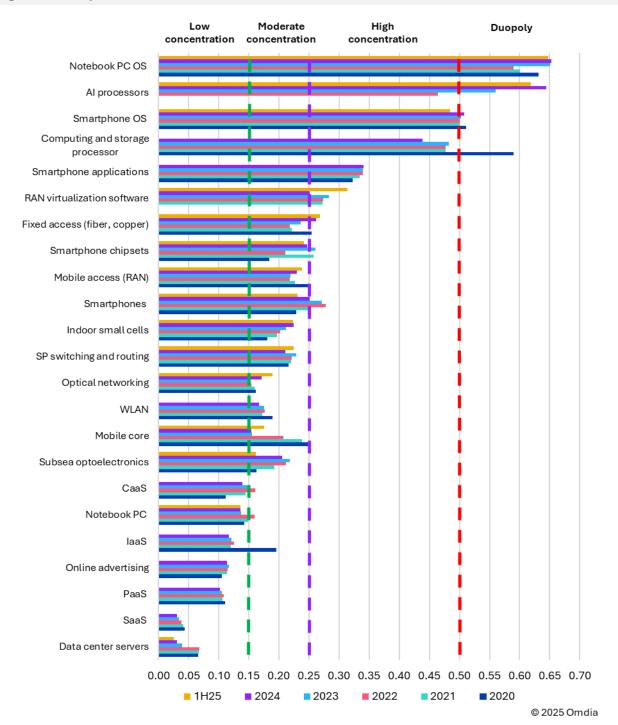
For 1H25, mobile core and access networks were moderately concentrated with HHIs of 0.175 and 0.238 respectively, which was slightly higher than in 2024 (0.154 and 0.230 respectively in 2024). This can be explained by the growing market share of the two leading vendors thanks to a more favorable regional mix, among other things.

It is also important to keep in mind that mobile RAN and mobile core have their own subsegments. Omdia has included indoor small cells in the comparison as an example of a subsegment of the RAN where concentration is slightly lower. It means that challengers and smaller vendors can capture higher market shares in specific subsegments. Inversely, the HHI is relatively high for the RAN virtualization software category where five main companies capture most of the market. This example shows that though network disaggregation will lead to a higher number of players at system level, specific subsystems or "layers" in the network may in the meantime see a relatively small number of highly specialized players and a relatively high level of concentration.

In other words, it is worth considering not only the diversity of network equipment vendors but also the diversity of vendors in their own supply chain. It is also important to note that the disaggregated RAN is a nascent market, and the situation could change over time.



Figure 3: HHI by markets, share of revenue





In network equipment markets, operators have choice

The number of vendors active in the RAN, core, and telecom cloud markets is not as small as many think. When looking at the ecosystem of vendors, Omdia identified at least 15 competitors in each category (**Figure 4**). Given that an operator typically selects between one and three vendors in each domain, this is a sufficient pool for the operators to choose from. And though not all vendors are present in all countries, no operator uses all the vendors present in the country where it operates.

Table 1: Examples of current 5G RAN and core and telco cloud solution suppliers (list is not comprehensive)

| Core systems and core network functions | RAN and core virtualization and cloud infrastructure |
|---|--|
| Alepo | AWS |
| Cisco | Dell |
| Enea | Google Cloud |
| Ericsson | HPE |
| HPE | Fujitsu |
| Genew | Kontron |
| Huawei | Microsoft |
| Mavenir | Mitac |
| NEC | Quanta |
| Nokia | Rakuten Symphony |
| Oracle | Red Hat |
| QCT | SuperMicro |
| Samsung | VMware |
| Tecore Networks | Wind River |
| ZTE | Wiwynn |
| | network functions Alepo Cisco Enea Ericsson HPE Genew Huawei Mavenir NEC Nokia Oracle QCT Samsung Tecore Networks |

© 2025 Omdia

Source: Omdia

Procurement processes systematically involve a selection phase and the elimination of less competitive vendors. Market shares reflect the results of the selection process, not the number of vendors (diversity) that have participated. These decisions are usually based on solutions performance, reliability, price, security, power efficiency, and other criteria of that sort rather than on a mandated obligation of vendor diversity.



Assuming that the number of RAN vendors were to increase significantly, it is improbable that an operator would multiply the number of suppliers it uses in its network at a given time. As mentioned before, the right number of RAN vendors is generally between one and three, possibly up to four in the largest markets. Beyond that, multiplying vendors in a single network will be counterproductive, because it will not only increase operational complexity but also reduce the bargaining power of the operator in negotiations with vendors.

A multi-vendor approach has its pros—such as reducing dependence on a single supplier—but also its cons, including integration and interoperability issues that can lead to suboptimal performance and ultimately disadvantage the operator and end consumers. The right balance between diversity, efficiency, and the economic optimum must be found. In January 2021, the chief technology officer of British operator BT, Howard Watson, publicly commented, "It's unlikely that all of us will start deploying equipment from four or five different vendors, because the operational challenge of the person in the van maintaining that tends to limit you to a choice of two."

In the meantime, RAN vendors also need to achieve economies of scale to spread their costs and achieve the margins necessary to finance research and development that enable innovation. Economies of scale also lead to lower prices of equipment and should in theory contribute to lower prices of services for end users.

We have seen that intradomain diversity (diversity of vendors within one network domain) has its limits and that beyond a certain point, it can have a negative impact on performance or costs. Interdomain vendor diversity (diversity of vendors across network domains) is another topic that we will not explore extensively here, but it is another aspect that integrated operators should take into consideration when seeking to reduce their dependence on their vendors. This may seem obvious, but selecting different vendors for mobile and fixed networks, for example, is one way to reduce this dependence and mitigate risks.

Market forces constantly drive changes in the vendor ecosystem

Omdia also tracks the vendors active across different network domains that are currently supporting live commercial networks in eight countries where network rollouts are in advanced stages: Australia, Canada, China, India, Japan, South Korea, the UK, and the US. Vendor data was gathered using Omdia's sources, including the *Telecoms Technology Contracts Database*, which captures publicly available service provider contract information.



Several vendors provide products and solutions across several mobile network domains. Vendors that operate in more than one domain are counted for each domain where we have identified an active partnership.

Overall, as of June 2025, the US and the UK had 44 active vendor partnerships across the four mobile network domains; Japan had 30, China and India 23, South Korea 21, Canada 19, and Australia 17. The ecosystem of vendors remains largely the same as in 2024, but a few new active vendors were identified in Australia, the US, the UK, and Canada.

50 45 Number of active vendors 40 35 30 25 20 15 10 5 0 UK Australia Canada US China India Japan South Korea RAN OSS/BSS MEC Mobile core © 2025 Omdia

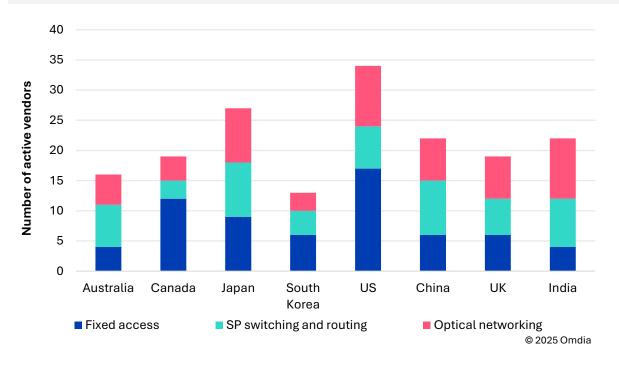
Figure 4: Active vendors in the mobile ecosystem, by domain and by country

Source: Omdia

Omdia conducted a similar assessment in the same countries for three fixed network domains: copper and fiber access, switching and routing, and optical networking. As in mobile domains, in fixed domains there were, unsurprisingly, more active vendors in the larger markets (the US, China, India, and Japan) than in the smaller markets.



Figure 5: Active vendors in the fixed ecosystem, by domain and by country



Source: Omdia

It is interesting to draw a parallel between fixed access and mobile access. The fixed access equipment vendor landscape went through significant concentration via mergers and acquisitions over 10 years ago, but recently more vendors have entered the market because of new opportunities. With new technology developments, there have been, for example, several new entrants to the fixed access market (particularly the passive optical network subsegment) in recent years. As a result, there is a higher vendor diversity in this domain. The same trend is now seen in mobile, and the number of active vendors for the eight countries in the mobile access domain (57) is relatively close to the number of active vendors in fixed access (64).

However, vendor diversity is not always correlated with a lower level of concentration. The subsegment of subsea optoelectronics (under optical networking), for example, does not have a particularly high number of active vendors, but the level of concentration is the lowest of the network categories. This is because market shares are more evenly distributed between vendors. HHI is calculated at global level because of market share data availability, but vendor diversity should be evaluated at country level since situations will vary.

It is also worth noting that concentration in the RAN industry has come to a stop. Following a series of four major deals that led to increasing concentration during the 2006–15 period



(Nokia-Siemens, Nokia-Motorola, Ericsson-Nortel, and Nokia–Alcatel-Lucent), there have been no significant new operations of concentration in this domain over the last seven years.

In summary, monopolies and duopolies should be avoided, and the level of concentration is an indicator that competition authorities should watch closely. Vendor diversity, however, varies significantly from market to market and from country to country. It tends to fluctuate over time in response to natural market forces, competition, business opportunities, and technological evolution.

As long as it does not lead to further market concentration, the choice of vendors, of technologies, or of specific network deployment models and architectures should be left to mobile and fixed network operators based on their respective technological and business merits.



Appendix

| Category | Definition | Noncomprehensive list of companies |
|-----------------------------|--|--|
| Smartphones | A mobile phone with an advanced mobile operating system, which combines features of a cell phone with other features useful for mobile or handheld use | Apple, Coolpad, Google, HTC, Huawei, Infinix, Itel, Lenovo, LG Electronics, Meizu, Micromax, Motorola, Nokia, Nubia, OnePlus, Oppo, realme, Samsung Electronics, Sony, TCL-Alcatel, Tecno, vivo, Xiaomi, ZTE |
| Smartphone OS | Smartphone operating system | Android, iOS, Harmony, Tizen |
| Smartphone chipsets | Smartphone application processor | Apple, Broadcom Limited, HiSilicon Technologies, MediaTek, Qualcomm, Samsung Electronics, Tsinghua Unigroup |
| Indoor small cells | Generic term for equipment that complements the macrocellular network and serves to enhance coverage and capacity and is deployed indoors. The radio unit can be integrated with the baseband function, or they can be separated. Antennas may be built in or external. Such equipment can be deployed in a standalone manner or be part of a distributed system | Airspan, Baicells, Comba, CommScope, Corning, Ericsson, Huawei, Nokia, Samsung Electronics, ZTE |
| Mobile access (RAN) | Radio access network hardware and software for 2G, 3G, LTE, and 5G NR. This includes equipment for public networks as well as private networks. | Airspan, Casa Systems, CICT, CommScope, Dell, Ericsson, Fujitsu, HPE, Huawei, Nokia, Mavenir, MTI, NEC, Parallel Wireless, Rakuten Symphony, Red Hat, Samsung Electronics, VMware, Wind River, ZTE |
| Mobile access processors | Equipment providing network connectivity for mobile technologies, including macrocells, small cells, and Wi-Fi access points | Advanced Micro Devices (AMD), Analog Devices, Broadcom Limited, Cisco, Espressif, HiSilicon Technologies, IBM, Intel, M/A-COM Technology Solutions, Marvell Technology Group, Melfas, Microchip Technology, Nokia, Nuvoton Technology, NXP, ON Semiconductor, Realtek Semiconductor, Texas Instruments |
| Mobile core | Evolved Packet Core (EPC) and 5G next-generation core. This includes equipment for public networks as well as private networks. | Affirmed, Cisco, Enea, Ericsson, HPE, Genew, Huawei, Mavenir, NEC, Nokia, Oracle, Samsung Electronics, ZTE |
| RAN virtualization software | Cloud infrastructure software for the virtualization or containerization of radio access network functions | Red Hat, Robin.io, VMware, Wind River |
| WLAN | Access points (enterprise-class or carrier-class wireless networking devices based on the 802.11 standard, typically configured for Wi-Fi client access but can also be configured to backhaul traffic wirelessly between two nodes) and controllers (appliances, software, and/or services that provide centralized control of Wi-Fi networks, including configuration and management of access points; management of wireless traffic, clients, and RF environment; network access; security; and roaming) | Alcatel-Lucent Enterprise, Cambium, Cisco, CommScope (Ruckus), D-Link, Extreme, Fortinet, H3C, HPE (Aruba), Huawei, Lancom, Mist, NETGEAR, Ubiquiti |
| Notebook PC | Traditional clamshell notebook PCs and convertible notebook PCs where the display and keyboard cannot be physically separated but the display can be flipped, rotated, swiveled, or slid, allowing the unit to convert from laptop to tablet for touch input | Lenovo, HP, Apple, Dell, Asus, Acer, Huawei, Microsoft, Samsung Electronics, Fujitsu, MSI, NEC, Toshiba, LG Electronics, Panasonic, Xiaomi, Haier, Positivo, RCA |



| Notebook PC OS | Notebook PC operating systems | Microsoft, Apple, Google |
|---|--|---|
| Computing and data storage processors | The term "processor" is a useful generic description to aggregate or collectively describe the many classifications of integrated circuits designed to act upon incoming data or signals, utilizing logical and arithmetic instructions (primarily in the form one or more layers of software), to provide a desired data or signal output. The output can be a control function, a mathematical resultant, a conditioned signal, an input to another process, a coded sequence, or similar system function. | AMD, Apple, Broadcom Limited, Infineon, Intel, Nvidia, NXP, STMicroelectronics, Marvell, MediaTek, Microchip Technology |
| Fixed access (fiber and copper) | OLT, ONT/ONU, P2P, DSL | Adtran, Calix, Casa Systems, CommScope, Corning, DZS, FiberHome, Fujitsu, Huawei, Iskratel, Mitsubishi, NEC, Nokia, Ribbon, Sagemcom, Sercomm, Sumitomo, Technicolor, Tejas Networks, Ubiquoss, ZTE, ZyXel |
| Fixed access processors | Processors for broadband access, also called "last-mile" equipment, which provide the final link between the telecommunications backbone network to customer premises; excludes the customer premises equipment such as modems and cable boxes; includes gateway-type devices categorized here depending on whether they are connections on the service provider network or customer premises side | AMD, Broadcom Limited, Cisco, GLOBALFOUNDRIES, HiSilicon Technologies, IBM, Inphi, Intel, Juniper, Marvell Technology Group, MaxLinear, Microchip Technology, Netronome, NXP, Realtek Semiconductor, Renesas Electronics Corporation, Texas Instruments, Xilinx |
| Service provider (SP) switching and routing | IP edge routers, IP core routers, carrier Ethernet switches. | Alaxala, Apresia, Brocade (Broadcom), Ciena, Cisco, Ericsson, FiberHome, Fujitsu, Huawei, Infinera, Juniper, NEC, Nokia, ZTE |
| Optical networking | Aggregation (TDM, CPO-A, and bandwidth management), wavelength-division multiplexing (WDM) (access WDM, metro WDM, backbone WDM, SLTE WDM), amplifiers/wet plant | Adva, Ciena, Cisco, FiberHome, Ekinops, Fujitsu, Huawei, Infinera, NEC, Nokia, Padtec, Ribbon, SubCom, Tejas, ZTE |
| Subsea optoelectronics | Optical networking equipment for submarine line terminal equipment including transponders and SLTE commons (terrestrial ROADMS, Mux/DeMux filters, pre/post amplifiers, and software) but excluding cable, installation, maintenance, or other associated costs. | Ciena, Cisco, Fujitsu, Infinera, NEC, Nokia (ASN), SubCom, HMN Tech |
| Infrastructure as a service (IaaS) | Includes servers, network, storage, database, network (Layer 4) applications, and management; does not include CaaS. | Alibaba, Amazon, Baidu, BT, China Telecom, China Unicom, Deutsche Telekom, Google, IBM, Jingdong (JD), Microsoft, NTT, Oracle, Orange, SAP, Tata Communications, Telefónica, Tencent |
| Cloud as a service (CaaS) | Provides an application execution environment; includes servers, network, storage, management, and DC orchestration software (cloud OS); purchased as a bundle and priced based on usage | Alibaba, Amazon, Baidu, Google, IBM, Microsoft, NTT, Oracle, SAP, Tata Communications, Telefónica, Tencent |
| Platform as a service (PaaS) | Provides an application development and execution environment; includes application runtime and middleware (web servers, database management systems), servers, network, storage, management, and DC orchestration software (cloud OS); purchased as a bundle and priced based on usage | Alibaba, Amazon, Baidu, Deutsche Telekom, Google, IBM, Microsoft, NTT, Oracle, Salesforce, SAP, Tencent |
| Software as a service (SaaS) | Provides a complete application with a pay-per-use pricing model; includes applications such as customer relationship management (CRM), enterprise resource planning (ERP), collaboration, security, management, virtual desktop, and business analytics | Amazon, BT, Cisco, Citrix, Deutsche Telekom, Google, IBM, Microsoft, NTT, Oracle, Orange, Salesforce, SAP, Tata Communications, Telefónica, Tencent, Workday |



| Data center servers | A networked physical device that provides shared general-purpose compute functionality; typically contains a centralized processing unit (CPU), random access memory (RAM), storage, physical network interface, power supply, and management; does not have more than seven large form factor (LFF) 3.5" HDD/SSD slots or 14 small form factor (SFF) 2.5" HDD/SSD slots per 1.75" (1U) of server enclosure height (i.e., no more than 14 LFF HDDs in a 2U rack server) | Cisco, Dell EMC, H3C, HPE, Huawei, IBM, Inspur, Lenovo, Supermicro, white-box vendors |
|--|---|---|
| Al processors | Semiconductors that integrate a distinct subsystem dedicated to AI processing including GPU, AI ASIC, FPGA, In-CPU accelerator. | Achronix, AMD, AWS, Cambrico, Cerebras, Google, Groq, Huawei, Intel, Meta, Nvidia, Qualcomm |
| Online advertising | Includes revenue derived from display ads placed on websites and inside apps and sponsored search results appearing in online search pages (e.g., Google and Apple Search Ads). Revenue numbers comprise the full value of what advertisers pay to place these ads, not just the cut taken by advertising platforms. Not included is what advertisers pay for the creation of ad campaigns. | Alibaba, Amazon, Apple, Facebook (Meta), Google (Alphabet), Tencent |
| Smartphone and tablet applications | Revenue from mobile app stores (e.g., Apple App Store and Google Play), via which smartphone and tablet users download applications to their devices. The revenue numbers correspond to the full retail value of what consumers pay, via app-store billing, to download premium apps and make in-app purchases. | Alibaba, Amazon, Apple, Facebook (Meta), Google (Alphabet), Tencent |
| | | © 2025 Omdia |



Omdia consulting

Omdia is a market-leading data, research, and consulting business focused on helping digital service providers, technology companies, and enterprise decision makers thrive in the connected digital economy. Through our global base of analysts, we offer expert analysis and strategic insight across the IT, telecoms, and media industries.

We create business advantage for our customers by providing actionable insight to support business planning, product development, and go-to-market initiatives.

Our unique combination of authoritative data, market analysis, and vertical industry expertise is designed to empower decision-making, helping our clients profit from new technologies and capitalize on evolving business models.

Omdia is part of Informa TechTarget, a B2B information services business serving the technology, media, and telecoms sector. The Informa group is listed on the London Stock Exchange.

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Omdia's consulting team may be able to help your company identify future trends and opportunities.

Get in touch

www.omdia.com askananalyst@omdia.com







Copyright notice and disclaimer

The Omdia research, data, and information referenced herein (the "Omdia Materials") are the copyrighted property of TechTarget, Inc. and its subsidiaries or affiliates (together "Informa TechTarget") or its third-party data providers and represent data, research, opinions, or viewpoints published by Informa TechTarget and are not representations of fact.

The Omdia Materials reflect information and opinions from the original publication date and not from the date of this document. The information and opinions expressed in the Omdia Materials are subject to change without notice, and Informa TechTarget does not have any duty or responsibility to update the Omdia Materials or this publication as a result.

Omdia Materials are delivered on an "as-is" and "as-available" basis. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness, or correctness of the information, opinions, and conclusions contained in Omdia Materials.

To the maximum extent permitted by law, Informa TechTarget and its affiliates, officers, directors, employees, agents, and third-party data providers disclaim any liability (including, without limitation, any liability arising from fault or negligence) as to the accuracy or completeness or use of the Omdia Materials. Informa TechTarget will not, under any circumstance whatsoever, be liable for any trading, investment, commercial, or other decisions based on or made in reliance of the Omdia Materials.