

Publication date:
January 2023
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Market Landscape: Core Vendors 2022

Excerpts



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Top takeaways

As of October 2022, about 29 communications service providers (CSPs) had deployed 5G core (5GC), and many others were in trial phases with their vendor partners. CSPs will leverage the new core and utilize new requirements, such as ultra-reliable low-latency communications (URLLC), to deliver new revenue-generating use cases—for instance, virtual/augmented realities (VR/AR). Other service features, such as network slicing, will help CSPs achieve improved key performance indicators (KPIs).

Five vendors essentially control the global 4G core (4GC) and 5GC market, with a combined market share of 85% in 2021, down from 95.4% in 2020. With so much share concentrated among so few vendors, each vendor works to be perceived as a market leader, especially in the case of the new 5GC. However, measuring leadership in this market has its challenges.

To rank the vendors for this report, Omdia surveyed nine core vendors, where two dimensions (their business performance and portfolios) were considered. Oracle ranked top in several categories within the business performance dimension, given its focus on working with CSPs to build a multivendor 5GC. Notably, Oracle does not provide the 5G packet core network functions and has focused its efforts on routing and selection, policy and charging, analytics, and automation subcategories. Therefore, we should be cautious when benchmarking its solutions against larger vendors.

Note: This document is an excerpt; please contact Omdia for the full report.

Core network market trends

The ability to quickly deploy the 5G standalone (SA) architecture, which leverages the 5GC, is critical to CSPs' business success. While many CSPs have deployed 5G networks in the non-standalone (NSA) architecture, only about 30 CSPs globally have now deployed 5GC, and many others are in trial phases with their vendor partners.

In 2021, despite a difficult environment for the vendor and market share losses, Huawei remained the core revenue market leader, followed by Ericsson, Nokia, ZTE, and Samsung Electronics. Notably, this is the 2021 revenue, and it does not presume evolutions in 2022 because Huawei continues to face challenges.

Huawei, Ericsson, and Nokia captured a combined 70% of global core revenue in 2021. When ZTE and Samsung Electronics were added, the top five companies generated 86% of total core revenue during the year. This figure is very high but still less than the 95.4% captured by these vendors in 2020, indicating that up-and-coming vendors like Oracle are collectively gaining market share.

One thing to keep in mind is how market share fits into a vendor's strategy. Some vendors are willing to sacrifice short-term margins to gain shares, winning business thanks to lower prices. This is particularly important in the case of 5GC, given it will create new monetization opportunities stemming from new 5G features. Conversely, other vendors are willing to sacrifice share and top line to protect their margins. Depending on the geography, project, or time, a single vendor may even use both strategies.

Omdia provides extensive market share data and analysis quarterly in its Mobile Infrastructure Market Tracker report series.

Business performance

There are some caveats to basing leadership totally on market share, but market shares are an important and generally accepted way of measuring market leadership. Market share carries the largest weight of all categories across the two dimensions considered in the report.

Omdia prefers to use revenue rather than units for market shares because revenue is the most common indicator of business performance and revenue data tends to be more reliable. The revenue market share shows a company's scale, business momentum, and ability to win new business.

Omdia also looks at the number of commercial 5GC deals with CSPs (excluding free trials, non-revenue-generating activities, and non-CSP deals). A deal with a Tier 1 operator in a big country tends to be worth more in monetary value than multiple deals with Tier 2 and Tier 3 operators in smaller countries. Nonetheless, these deals indicate a vendor's reach and capacity to win requests for proposals (RFPs), and more broadly, they demonstrate a vendor's business momentum; therefore, they are worth considering.

While Huawei was ranked the market leader in business performance in 2022, followed by Ericsson, Omdia ranked Oracle in a close third position.

Oracle's strength stems from multivendor capabilities

Oracle has strength in several core subgroup categories and has won deals with CSPs that want a multivendor 5GC stack. Notably, some of the announced deals are in Europe, South Korea, the UK, and the US. Nokia also captured deals in Europe, a very fragmented market, where it has strength. As a challenger, Mavenir claimed a good number of deals and new logo CSPs globally.

With 5G NSA, most operators use their existing 4G vendor to upgrade the core. Given the tight relationship between 4G and 5G in NSA, winning 5G contracts where a vendor did not already provide 4G is a strong endorsement of its solutions. This shows that an operator is willing to either rip and replace an incumbent 4G vendor by building a new combined core that services 4G and both 5G modes or face interoperability challenges between multiple vendors that will compose its next-generation core.

The 5GC is considered more strategic than previous generations. As a result, the vendors have, in some cases, benefited from policies against Chinese vendors in the Five Eyes countries (Australia, Canada, New Zealand, the UK, and the US) and Europe. However, it should be noted that in many cases, new logo deals counted here have no link with Chinese vendors.

5G share of total core revenue

To complement the revenue market share analysis, Omdia also considered the share of 5G as a percentage of each vendor's total core revenue in 2021.

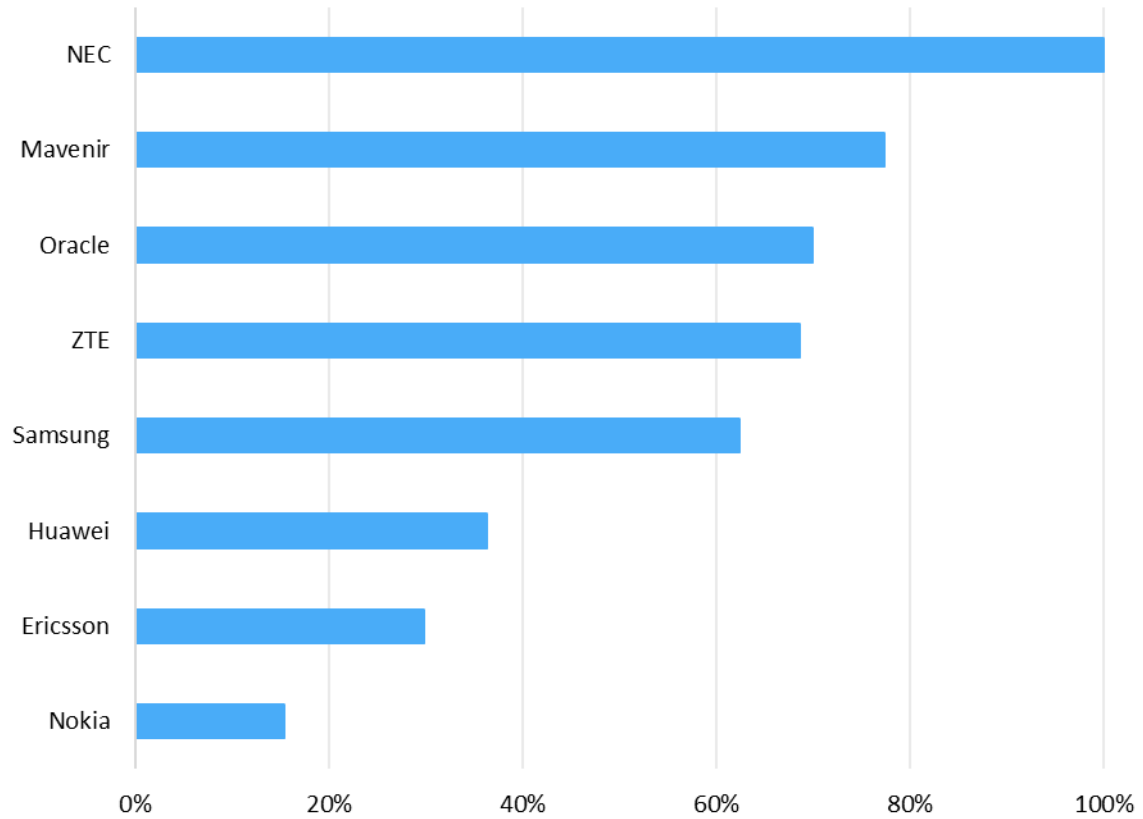
Revenue from the sale of 4G equipment is worth the same as that from the sale of 5G software. Nonetheless, Omdia and many of our readers consider the 5G revenue to be a relevant indicator of a vendor's commercial momentum and how fast the vendor can shift its revenue mix toward 5G—i.e., the fastest (and only) growing segment of the core market.

Oracle was one of the top three vendors that generated more than 50% of its total core revenue from 5GC in 2021, with the highest percentage observed from NEC (100%).

NEC benefited from strong 5G business in Japan, its domestic market, while ZTE similarly benefited from 5G deployments in China—both are early 5G-adopting countries where most investment has already shifted from 4G to 5G. Both Mavenir and Oracle are heavily focused on 5G business in Europe.

Inversely, Huawei, Ericsson, and Nokia are global vendors with a more diversified client base and revenue mix. For these larger global vendors, their presence in both developed and emerging markets is an advantage over other metrics, including the total core revenue and the number of 5G deals. One vendor cannot win in all categories.

Figure 1: 5G share of vendors' total core revenue in 2021



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Category definitions

Below are the definitions for the products included in this service. Please see *Methodology* in the Market Landscape: Core Vendors 2022 in the service portal section for this report.

The core network, as covered by Omdia in this report, includes only software. Services and other solutions that belong to other network domains, such as radio access network (RAN) and transport networks, are not included.

Appendix

Further reading

[Mobile Infrastructure Market Tracker – 2Q22 Analysis](#) (September 2022)

[Mobile Infrastructure Market Tracker – 1Q22 Analysis](#) (June 2022)

[Operators' voice service continuity in 5G era and cost-saving strategies are contingent on IMS implementations](#) (November 2021)

[2022 Trends to Watch: Mobile Infrastructure](#) (October 2021)

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