

CSPs are moving service design and orchestration spending away from 5G-focused software

October 2024

Alex Bilyi

Communications service providers' (CSPs') spending on 5G deployments is slowing down in developed economies. However, emerging use cases, such as fixed-wireless access (FWA) and private 5G networks, as well as the need to optimise the cost of systems, are expanding the scope of 5G applications and helped 5G to retain its position as the main source of CSP spending in the service design and orchestration (SDO) systems and services market in 2023. We expect 5G deployments and investments to come in waves and that CSPs will not be able to truly monetise 5G with non-standalone (NSA) technology. CSPs' current struggles with revenue and delivering value to shareholders have forced them to reduce investment in 5G. This presents a twofold challenge for vendors: ensuring their solutions are ready to support standalone (SA) networks and multi-domain, multi-vendor solutions, and providing short-term solutions to optimise existing investments and resources.

Netcracker, Ericsson, Amdocs, Oracle and Nokia have maintained their market positions in the SDO space. They have achieved this by strategically focusing on professional services, cost optimisation and digital transformations while addressing the declining product market.

Systems integrators (SIs) faced significant challenges in 2023. Vendors face increased competition for service revenue, which has affected Sis, as has the decline in smaller projects.

GenAI may help CSPs to move closer to autonomous operations

AI (in the form of generative AI (GenAI)) re-emerged as a catalyst for change in the telecoms industry in 2023. Vendors have started to strategically integrate AI across various software domains, from enhancing chatbots to supporting network engineers. It is yet to be seen whether AI will boost CSPs' revenue but it has been a particularly impactful application in the realm of autonomous network strategies.

AI-driven operations and analytics have been instrumental in shaping autonomous network strategies and vendors have started providing a clear roadmap for how they can assist CSPs on their automation journeys. Established players, such as Amdocs, Huawei and Netcracker, have showcased innovative platforms. For instance, Amdocs' 'amAIz Platform' and Netcracker's 'GenAI Telco Solution' capitalise on domain-specific knowledge and data to train GenAI models, ensuring accurate and relevant interactions in a secure environment. Ciena's Blue Planet division has also made significant strides in automation. In partnership with Google, Blue Planet launched the 'Cloud Native Platform', using Kubernetes to support multiple modular OSS applications, converging inventory, orchestration and assurance applications onto a unified solution. The AI-driven operations component of Blue Planet's platform aims to enable CSPs to apply machine learning (ML) and AI-based capabilities, developed both in-house or by third parties.

Open RAN is getting traction, reshaping the industry and creating new opportunities

Open RAN adoption is starting to gain momentum, despite facing delays to those faced by broader 5G network deployments. According to Analysys Mason's survey, [over 23% of active vRAN and Open RAN projects are now in the commercial phase and projects are moving more quickly from design/planning to final deployment.](#)

vRAN and single-vendor Open RAN solutions provided by network equipment providers (NEPs) currently dominate the market, but multi-vendor and challenger vendor projects are gradually making progress. Open RAN has the potential to introduce new market dynamics, as evidenced by partnerships between small Open RAN players and industry leaders. This could lead to increased interoperability and competitive challenges for established RAN vendors as software becomes decoupled. As part of the transition to the open environment, service management orchestration (SMO) systems, coupled with xApps and rApps, will be instrumental in successful Open RAN deployments. This transition will create new competitive opportunities for vendors, particularly established OSS providers, who will be able to compete directly with NEPs in a RAN-software domain. In the ideal scenario of platform interoperability, smaller vendors will also be able to benefit from the Open RAN environments, developing and deploying xApps and rApps on the incumbent platforms.

Analysys Mason is at the forefront of analysing service design and orchestration systems and services for the telecoms industry

Our recent report, [Service design and orchestration: worldwide market shares 2023](#) provides market share data for the service design and orchestration market and includes: detailed evaluations of product and professional services delivery types and specific regional developments; an assessment of the business environment and regional dynamics that influence the market; recommendations for vendors; and short profiles of ten leading vendors in the market.