

Analysys Mason's predictions for the telecoms software and networks market in 2021

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5G will dominate operators' overall spending decisions in 2021, but cloud will dominate their telecoms software-related spending decisions. Cloud will have an influence on all aspects of the telecoms market in 2021. The COVID-19 pandemic will continue to reinforce the critical role of communication services, particularly broadband connectivity and the automation that operators use to make these services highly available to consumers and industries alike.

Operators will accelerate their preparations for the expected demand for 5G enterprise services.

Operators will move beyond the 5G New Radio (NR) investments that dominated 2020 and will take more steps to develop base capabilities for offering services to enterprises. These steps will include more partnerships with cloud service providers and the first roll-outs of 5G standalone (SA) core networking, along with deployments of 5G charging systems, and network and service orchestration platforms. Many operators will establish edge computing capabilities to strengthen their positions.

Partnerships in cloud computing and 5G SA will help operators to be more agile. As part of this, operators will begin to invest in vRAN – on a small scale in 2021, but spending will increase to USD20 billion in 2025. Cloud technology providers will become much more important to operators in 2021; all vendors will start to focus on cloud-based technology. Major suppliers will continue to strengthen their positions with cloud-based, telecoms-focused technology and services acquisitions.

Operators will develop new business models for enterprises as part of the overall push in 5G. Efforts with 5G SA in 2021 will enable operators to deliver services for enterprises with network slicing and converged core networks. However, the new enterprise business models will mostly be supported by other technology in 2021, such as SD-WAN, IoT and the broader availability of cloud-based service platforms. Operators and vendors will engage in a range of these efforts in 2021 to position themselves for service revenue that comes from these new enterprise business models.

Operators will focus on the digital customer experience. Operators' automation efforts are already eliminating staff from routine work such as front-office contact centres. Following their experiences during the pandemic, operators will accelerate these efforts to support consumers with automated attendants and self-care apps. With more emphasis on digital experience, operators are both creating a better overall customer experience and reducing operating costs.

Operators' automation efforts will gain momentum. Operators will accelerate network automation in 2021. We expect them to increase spending on automated orchestration of the core, edge and transport networks to manage complexity, enable service agility and achieve service scale, taking the market from USD4 billion in 2020 to USD20 billion in 2025.

Digital transformation has arrived not as a 'big bang' but as a driver of increased automation. Better automation enables a better customer experience. In 2021, operators will seek to improve the customer experience by accelerating the roll-out of customer self-service capabilities. Better automation will improve the

rate at which new technology and services can be rolled out. This this will be particularly obvious in the use of analytics and AI to determine the placement and tuning of 5G network equipment.

Non-traditional players will increasingly own telecoms infrastructure. There will be more structural separation in fixed networks, with many operators divesting fibre assets and with private equity investors piecing together wholesale FTTH networks. At the same time, web-scale companies will expand their investments in international data centre interconnect, including undersea cables. Owners of passive infrastructure such as telecoms towers will be looking to move up the value chain, including into interconnect and edge computing.

Network operators' increasing use of cloud technology is enabling more structural separation, freeing underused assets from the constraints of vertical integration. Investors are anticipating the added value of cloud computing embedded in the network in 2021, and are investing directly in edge computing and assets that will leverage edge computing. Cloud service providers have invested massively in data centre assets and in the communications interconnect between data centres.

Network disaggregation will disrupt the vendor landscape. Many operators will deploy 5G core networks independently of their relationships with RAN suppliers. This represents the first step in opening up the mobile network to more vendors. vRAN deployments will put pressure on traditional suppliers that may need to restructure. Cloud vendors will acquire more telecoms-specific capabilities along the lines of Microsoft's recent purchases of Affirmed Networks and Metaswitch.

In 2021, traditional suppliers must move more strongly to cloud-based solutions to match the agility of cloud-native solutions for telecoms, and also to take advantage of the growing cloud-enabled, connected digital business beyond telecoms. The cloud technology that threatens to disrupt the traditional telecoms value chains also opens up opportunities for other businesses that offer digital services.