

# The SDO market grew after several years of decline due to strong performance from product-focused vendors

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Service design and orchestration (SDO) is the market segment that covers the OSS software used in service fulfilment. These systems are used to plan the future capacity and technology of the network, prepare the network to provide services and plan and implement the changes required in the network and services layer to support the services as ordered by customers.

This comment summarises the key findings presented in Analysys Mason's Service design and orchestration: worldwide market shares 2019 report, which provides data and commentary on CSP spending on telecoms specific SDO software and services.

## The modernisation of fulfilment systems, 5G network planning and the orchestration of complex services drove SDO growth in 2019

The SDO market grew 1.4% year-on-year in 2019 to reach USD9.5 billion. Each sub-segment exhibited growth, primarily on the product side, which grew 2.3%. CSPs increased spending to support on-demand ordering and provisioning of new services such as SD-WAN, resulting in 3.1% growth in order management (OM) products.

Inventory management (IM) products grew 4.4%. CSPs continued to modernise inventory systems for virtualised and software defined networks, laying the critical foundations to providing 5G services. Activation spending was mainly to support fibre roll-outs and multi-vendor device activation, while 5G NR deployment and optimisation drove growth for engineering systems (ES).

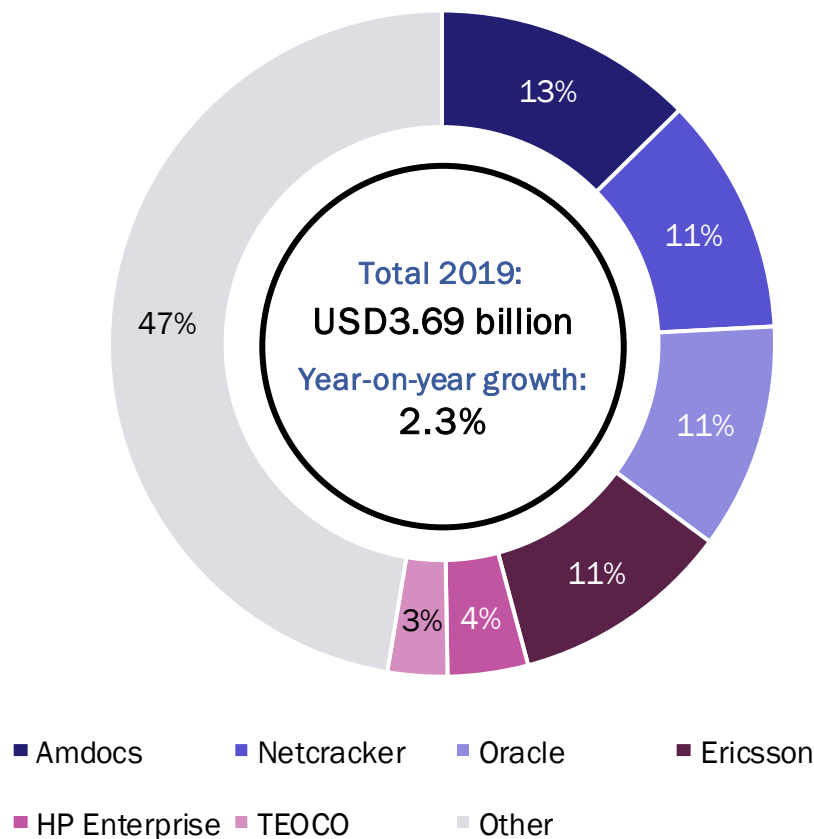
## Successful vendors in SDO continue to adapt their portfolios to address CSP needs

The top six vendors in the segment remain the same as the year prior, however Netcracker assumed the top position, displacing Ericsson. Ericsson's firm second place can be attributed to its strong professional services offering, where, excluding its small lead over Netcracker, it dominates the market. Oracle maintains its position in third overall, which is reflected in its placings in the product and professional services split. Amdocs, HP Enterprise and Accenture continue to hold their positions in the bottom half of the top six, placing fourth, fifth and sixth respectively.

### Amdocs retained its market leading position in the SDO products segment

The SDO products segment is highly concentrated in the top four vendors. The fourth placed vendor has almost three times the market share of the fifth placed vendor.

Figure 1: Service design and orchestration product revenue by vendor, worldwide, 2019 [Source: Analysys Mason, 2020]



Amdocs maintained its market leading position in pure product revenue due to its product-centric strategy, where it offers an extensive SDO portfolio with continued investments into NFV/SDN and cloud-native functions. Its transition towards cloud-native solutions places it in a good position to capitalise off the CSP interest in deploying solutions on public cloud.

Amdocs’ strong focus on NaaS and multi-domain service orchestration for SD-WAN and VNFs has resonated well with CSPs as it uses automation and flexible deployment models to remove the complexity of VNF-related service and network lifecycle management. Amdocs has notable deployments of its NaaS solution with Globe Telecom, Comcast and VodafoneZiggo. Its acquisition of TTS Wireless, a mobile network planning and optimisation specialist, has served it well in the engineering systems product segment, growing 6% retaining the top spot in the segment as CSPs invest in planning and optimisation for 5G NR. It also continues to dominate the order management product sub-segment, growing 4% thanks to its aforementioned service orchestration solutions.

Netcracker modernised its Digital OSS portfolio to be cloud-native enabling it remain dominant in IM products, growing 10%. Oracle continued to lead the IM and activation markets overall, shifting to a productised strategy and opting to outsource services using its partner network. Ericsson was in the top 3-4 vendors for product revenue in all SDO sub-segments by focusing on enabling CSPs to automate end-to-end service design and orchestration for 5G and network slicing, hybrid service and resource management.

## Other highlights from 2019

- Some CSPs in advanced markets started to roll out 5G NR in 2019, and many more are in the planning stage. Consequently, the planning, design and optimisation of 5G cell sites was a significant driver of the SDO market. 5G standalone (SA) however, will have a greater impact on the SDO market from 2020 onwards.
- CSPs are starting to offer managed SD-WAN and network-as-a-service solutions as rigid physical networks are being replaced by software-defined, programmable networks. This is creating a demand for standards-based vendor turnkey solutions with fully packaged orchestration, multi-vendor provisioning, activation capabilities and a self-service portal for customer control.
- Multi-domain service orchestration and automation affected most of the vendors in the service design and orchestration segment. The focus in recent years has largely been on domain-level network orchestration, but the market is shifting towards end-to-end service orchestration as use cases such as network slicing emerge.
- CSPs are beginning to adopt subscription licensing models and are seeking different deployment models such as private/public cloud hosted and vendor SaaS. The shift towards cloud-native microservice architecture is enabling agile CI/CD-based delivery and cloud-agnostic deployments.