Analysys Mason's telecoms software predictions for 2020

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Five drivers for telecoms software in 2020

Software is essentially about automation. In 2020, automation for telecoms operations will move beyond 'process automation' to play a central role in helping communications service providers (CSPs) fulfil their wider business strategies. Analysys Mason's predictions for telecoms software in 2020 reveal an increasing focus on automation in five key areas.

- 5G
- Telco cloud
- Digital experience
- Ubiquitous data and AI
- Changes in the value chain

5G

All eyes are on 5G, but in 2020, the 5G experience will remain largely '4G-plus.' Meanwhile, behind the scenes, 5G will influence a range of use cases that focus on automation.

- In 2020, 5G automation will primarily support network deployments. This will emphasise planning and design (such as traffic forecasting and site selection using machine learning (ML) techniques), as well as the self-organising network (SON).
- CSPs and vendors will continue to announce new 5G standalone (SA) deployments but the scope of these deployments will be limited because they are still developing the SA technology and the means of deploying and supporting them at scale. Nevertheless, these SA efforts will underpin new and significant levels of automation in the telecoms sector in the future.
- Many complex use cases based on widely deployed, low-latency 5G networks will be put on hold in 2020 while CSPs slowly put in place the right types of building blocks, including telco cloud platforms and new internal development processes.

Telco cloud

Telco cloud is closely related to 5G deployment. CSPs are increasingly committed to working with cloud infrastructure providers on the telco cloud.

- CSPs have been developing telco cloud capabilities for some time. The pace of this development, as well as the number of deployments, will increase during 2020 to become a major focus for many CSPs.
- Edge computing is one of the hottest topics in telco cloud. In 2020, CSPs and cloud providers will be sorting out the economics and expanding the applications of edge computing.

- The increasing adoption of SD-WAN architecture will drive CSPs to invest more in automation for customer engagement, service design, activation and other ongoing operations.
- Fear of making bad technology choices will prevent some CSPs from embracing NFV-based automation. Nevertheless, NFV-related spending will continue to grow, reaching about USD2 billion in 2020, which is nearly double what it was in 2019.

Digital experience

All businesses, including CSPs, are working hard to transform into digital businesses.

- CSPs will make further progress automating end-to-end customer journeys. A growing number of CSPs will position the mobile app as the gateway for all customer interactions. CSPs will start to shift their focus away from app penetration to app engagement.
- CSPs will increasingly use tools such as configure, price and quote (CPQ) software, as well as business service market places, to better target the B2B opportunity.
- Automation will increasingly help CSPs to connect with partners, customers and other CSPs (for example, through the use of standardised APIs and updated OSS/BSS). CSPs will continue to experiment with different engagement models. This automation will make cloud-based deployments of digital experience functions commonplace and will improve agility and time to market, as well as reduce CSPs' costs.

Ubiquitous data and AI

Automation, in the telecoms industry and beyond, is dependent on more and better data.

- A broader range of automated journeys, whether internal or customer-facing, are made possible through the increasing availability of data. Previous efforts in data warehousing, as well as big data and analytics, are collectively paying off to make higher levels of automation in the telecoms industry possible. In 2020, many islands of automation will be brought together to support more fully automated, end-to-end processes.
- AI is a headline-grabbing area of analytics, and it has been successfully applied in areas such as natural language processing in customer engagement. In 2020, CSPs will take advantage of centralised AI support to help them extend AI into more parts of their businesses.
- In 2020, CSPs will bring previously isolated AI tools and expertise into libraries and governance frameworks so they can be applied more fundamentally across the business. This will involve using self-service tools that will reduce the range of skills needed to create insights from data.

Changes in the value chain

Traditional, vertically integrated CSPs and equipment suppliers have, until now, dominated the communications services business but this is starting to change.

- Many new services are being offered by non-traditional service providers such as cloud gaming and OTT video. Where once games and movies were delivered as discrete goods, they are now provided as services, dependent upon – but distinct from – the consumer broadband network. We will see a surge in the number of new gaming and video services and service providers in 2020.
- In 2020, new types of service providers will launch an increasing number of enterprise services enabled by SD-WAN, NB-IoT and private LTE . These newer enterprise service providers, sometimes referred to as managed service providers (MSPs), focus on enabling new services in specific areas or industries. They depend upon the basic connectivity and wholesale services of traditional CSPs.

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- Most of these new services, as well as many of the innovations within traditional CSPs, are built on IT skills rather than traditional networking skills. This opens up new opportunities for IT-skilled software vendors and professional services companies and threatens the position of traditional equipment suppliers.