The introduction of automation to business operations creates new opportunities for CSPs and vendors

November 2019

John Abraham and Larry Goldman

Business operations are being affected by three main business drivers: 5G, digitalisation and basic financial pressures. This, in turn, is leading communications service providers (CSPs) to increase their efforts to introduce automation to business operations. Figure 1 illustrates this pathway and shows CSPs' five key areas of focus. We expect that CSPs' opex and capex will be affected by these efforts.

Figure 1: The pathway from the basic business drivers to CSPs' efforts to introduce automation to business operations
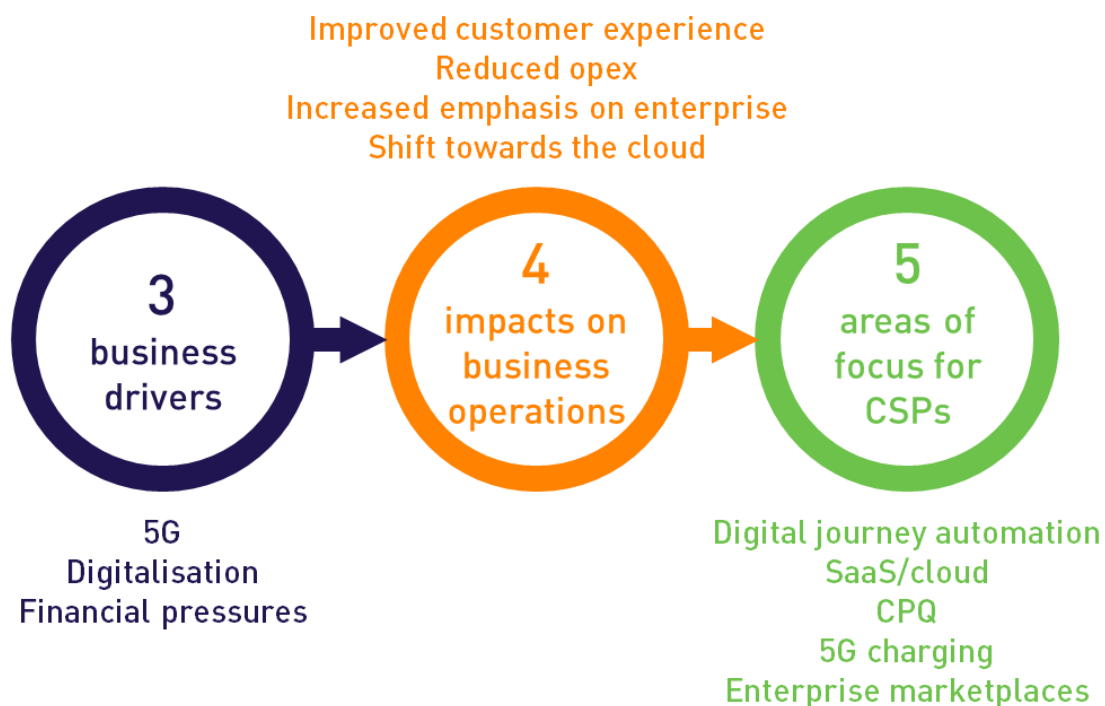
Source: Analysys Mason, 2019

5G, digitalisation and financial pressures will have four key impacts on business operations

CSPs are under pressure to introduce automation into business operations due to 5G, digitalisation and financial pressures. As a result, we expect:

- improved customer experience

- reduced business operations opex through higher levels of automation, particularly for automated customer journeys
- an increased emphasis on enterprise services, somewhat at the expense of consumer services
- a broad shift towards the cloud.

Improved customer experience

CSPs' investments will lead to an improved customer digital experience, which in turn will result in higher levels of satisfaction, thereby reducing churn and increasing customers' preference to buy more services from the CSP. CSPs will see this improved customer experience for enterprise services as well as for consumer services, where the greater emphasis traditionally lies.

Greater levels of automation will lead to lower opex

CSPs' efforts to improve the customer experience will result in more aspects of marketing, selling and support being fully automated. As a result, fewer customers will need staff support in call centres or shops. Successful automation efforts will therefore lead to significantly lower business operations opex.

Increased emphasis on enterprise services

Historically, all business operations automation focused on consumer services, while support for enterprise services was almost entirely manual. This is changing, and enterprise services are now receiving more of CSPs' attention. The result is an improvement in the enterprise customer experience and reduced opex. Capex is also shifting: increasing the capex for enterprise services often requires a reduction in capex for consumer services.

Shift towards the cloud

CSPs were reluctant to embrace the cloud, but are now rapidly shifting to place more emphasis in this area by taking the approaches noted below. Use of the cloud lowers capex but increases opex. CSPs' shift to the cloud creates opportunities for new technology suppliers such as Amazon and threatens the established position of traditional technology suppliers such as HPE, IBM, Oracle and SAS.

There are five key focus areas for CSPs that plan to increase business operations automation

Digital journey automation

CSPs are placing a greater emphasis on digital customer journeys. They are moving away from automating single CSP job functions and are instead looking to automate customer journeys that might encompass many different CSP job functions. The resulting fully automated journeys give the end customer a greater sense of control and familiarity with web-based interactions. The potential rewards are significant because better digital experiences are strongly correlated with a reduced propensity to churn, and because the resulting reductions in opex can be considerable. However, digital journey automation is high-risk because many new methods must be developed and deployed.

Vendors can provide better integrated and more-automated customer engagement (CE) and monetisation systems, particularly by integrating CE marketing, selling and service functions. Many CSPs turn to systems integrators (SIs) for help with integrating new vendor products into existing operations.

RESEARCH

analysys mason

SaaS/cloud

CSPs are looking to use more technology that is deployed in the cloud. CSPs are already moving quickly to the public cloud for basic computing and increasing levels of IT technology. Somewhat more slowly, CSPs are using monetisation and customer engagement software deployed as software-as-a-service (SaaS); customer engagement is developing more rapidly than monetisation in this regard. CSPs are also adopting turnkey systems deployed in the cloud with minimal integration to their on-premises systems. The move to the cloud means that CSPs often use software as developed by vendors, with minimal customisation. This corresponds to increased opex and decreased capex, though sometimes, long-term commitments to cloud deployments can be capitalised. Shifts to the cloud have a low technology risk, unlike digital journey automation, but significant changes in operational culture are required to accept systems as provided by the vendor.

Configure, price, quote (CPQ)

CSPs are automating more enterprise services. The most significant area of enterprise automation is configure, price, quote software (CPQ). CSPs are automating marketing and selling efforts for enterprise services through the development of CPQ. Increased CSP spending on CPQ products and professional services is needed to put these services into operation. The increased use of CPQ will lead to a reduction in opex for direct enterprise support staffing, meaning that CSPs will have more opex available to run the resulting business operations. CPQ work has been underway for several years and is relatively well-understood. It is comparatively low-risk technologically.

The number of CPQ opportunities will grow for established CPQ suppliers. We expect that consumer CE product suppliers will branch out into enterprise CPQ.

5G charging

CSPs expect investments in 5G will allow them to offer more enterprise services. CSPs are expanding their offer of services and are updating their monetisation systems to support these new services. Without improved 5G charging, CSPs will not be able to fully monetise their investments in enterprise services. Historically, enterprise charging, like enterprise customer engagement, has been simple. Now, CSPs need more-sophisticated enterprise monetisation platforms to support the wave of new 5G-enabled services. As with CPQ, 5G charging improvements are well-understood and are technologically low-risk unless there is a reason to move 5G charging to the edge.

Enterprise marketplace

To meet the expectation of an enlarged enterprise service portfolio, CSPs must combine the services that they offer with those that they enable but that are provided by others. SD-WAN is an important connectivity innovation that spurs a range of enterprise services that may come from non-traditional service providers. Network slicing could play an even bigger role than SD-WAN. CSPs are developing enterprise marketplaces in order to partner with these other enterprise technology suppliers. In these partnerships, CSPs provide marketing, selling, supporting, charging and partner settlement functions on behalf of the enterprise technology suppliers. Some CSPs are developing these marketplaces themselves, while others are using vendor-supplied marketplace products. Marketplaces are a new area for CSPs, and carry both business and technological risks.

Enterprise marketplaces are a new arena for product vendors and SIs, and as such, there are no established vendors to dislodge. However, there is not yet a clear path to accepted marketplace solutions.