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Leading CSPs Digital Transformation Initiatives are Driven by a Motivation to Improve Market Valuation

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Nearly every CSP worldwide is pursing some sort of digital transformation. Although the term digital transformation is widely accepted, there is no consensus on what digital transformation really is, as there is no one-size-fits-all approach to transforming the underlying infrastructure and each CSP takes a unique path. For instance, in our research covering 34 CSPs, we found that may CSPs in emerging markets favor a high-impact end-to-end approach to transformations, while most in developed regions prefer a more conservative, phased approach. Typical transformation programs can take multiple years and cost the CSP tens – if not hundreds – of millions (USD). The key issues for CSPs include defining their digital transformation strategy, tracking progress (or success) of the transformation, and anticipating returns on their investment.

This article briefly discusses the primary motivations driving CSP investment in digital transformation. Figure 1 gives an overview of those motivations. In general, the degree of commitment to digital transformation is represented by the arrow on the right, and each of the concentric circles, from the outside to the innermost, represents an increasingly direct connection with the CSP's bottom line. The new virtualized network is the the base that nearly all CSPs will transform, while the most fundamental changes that change the way investors value the CSP business will be those that take more time to materialize.

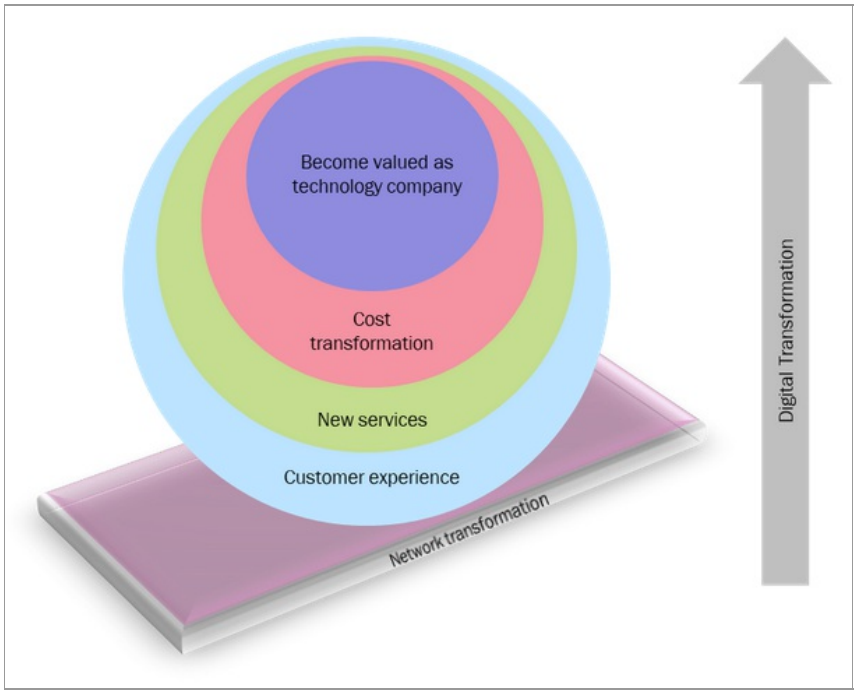

Figure 1: CSP motivations for digital transformation [Source: Analysys Mason]

1. Network transformation

Network infrastructure is rapidly shifting from proprietary hardware to virtualized network technology running on industry standard IT hardware. This virtualized network infrastructure involves network function virtualization (NFV), software defined networking (SDN), a range of private and public

cloud IT, and new orchestration to manage the new network. Most CSPs will implement virtual networks, if only because their suppliers are changing to offer new network capabilities through virtualized products. According to Analysys Mason's estimates, CSP spending on NFV and SDN software, services and hardware will increase by a CAGR of 59% and 38% respectively between 2017-2021.

CSPs' business motivation in network transformation is primarily focused on lower capex and opex costs. So far, there is limited evidence of these benefits. They may be a long time coming, especially while CSPs run hybrid traditional and virtualized networks. CSPs also see their virtualized networks as much more agile in offering new services – a necessary but not sufficient step toward new revenues.

2. Customer experience

For many CSPs, their public commitment to digital transformation is represented by providing a new digital customer experience. AT&T, Telstra and Veon are examples of CSPs prioritizing customer experience over other factors in their digital transformation journey. This usually begins within providing customer self-service, especially in the form of smartphone apps, customer web portals and interactive digital tools in shops. For instance, CSP spending on automated attendant solutions is expected to grow at a CAGR of 67% between 2017-2021. The digital customer experience enables CSPs to portray themselves as similar to webscale companies and to better appeal to younger, more digitally native customers. The digital customer experience most often applies to consumer services – particularly mobile consumer services. Increasingly CSPs are also providing digital customer experience for business services.

The primary business motivation for customer experience is in preventing churn and gaining market share for existing services. In some cases, CSPs see cost reduction as customers make greater use of self-service. These cost benefits are so far limited by the small percentage of CSP customers who fully shift to self-service.

3. Digital services

CSPs have been trying to diversify beyond connectivity services for over 20 years – with limited success. For some CSPs, the primary reason to pursue digital transformation is to better enable new services, thereby creating new revenue streams. Telefonica is an example of a CSP for whom providing new services is a primary driver for transformation. In many cases, CSPs are trying to emulate the methods of internet-based OTT providers who have captured most of the connectivity-enabled business that CSPs had hoped to have for themselves. For many, virtual networks and digital customer experience are foundational in being more successful with new digital services going forward than in the past.

CSPs are also pursuing a wide range of consumer services, particularly in mobile payments and in video services. Now they often partner with other parties whom they once considered competitors

for these services. Digital transformation allows CSPs to deploy more open platform approaches – with API interfaces for partners, for instance – than were possible before digital transformation.

More recently, CSPs have put more emphasis on new digital business services, underpinned by their new virtualized networks. These services include cloud-based IT services, security, and new types of connectivity such as SD-WAN. For many, the digital business services push includes IoT. In these new digital business services, CSPs increasingly use the digital technology and business approaches of webscale providers. The business motivation behind digital services is primarily to gain new revenues, but some of the payoff is in protecting the CSP's connectivity revenue.

4. Cost transformation

The digital transformation efforts we have already mentioned inherently offer some cost benefits but, for the most part, revenue protection and growth are the primary goals. For most CSPs, cost transformation is never the primary goal of digital transformation, although some CSPs – notably AT&T, Telefonica and Telstra – are pushing dramatic changes in cost structure alongside digital transformation. CSPs' investments in SaaS-based software for telecom-specific applications is an example: in the past CSPs favored traditional on-premise license-based deployments for such services, but that is changing as spending on SaaS-based solutions is expected to grow over 300% by 2021.

For many CSPs, digital transformation is fundamentally about changing the way they run their businesses. Most CSPs are weighed down by legacy systems architecture, siloed organization structure and outmoded process frameworks. Besides accounting for significant operations cost, this setup also slows down CSP response to market changes. CSPs anticipate significant cost savings from adopting AI/automation and cloud-based technologies in software architecture and process frameworks, which in turn will reduce the number of employees required.

5. Becoming valued as technology companies

CSPs and most of their suppliers dread the idea of being considered utilities. Investors hope for the kind of growth that justifies the high valuations of technology companies such as Amazon, Google, Uber and others who created wealth for investors built on the backbone of internet connectivity provided by the CSPs. CSPs made the really big investments, but the OTT investors got the bigger payoff. Investors have been pushing the CSPs to be more like the webscale providers as a way to get these greater returns. Much of the CSPs' public posturing for digital transformation is a response to these investor pressures. However, to date investors are not impressed by the CSPs' efforts and have grown skeptical that traditional CSPs will ever be more than utilities.

Being a utility or commodity provider, however, is not all bad. CSPs generally have good margins and provide steady profits. They rarely have more than two competitors. There are serious regulatory and investment barriers to new entrants. CSP service revenue globally is approximately $2 trillion, more than 2% of global GDP. The current business is not a bad business if one values steady, reliable profits. Nevertheless, some CSP boards and investors feel that the telecom industry faces an existential threat from webscale providers. Physical/ wireless connectivity infrastructure will always be necessary and valuable. But most of CSPs' costs are operational expense. Webscale providers, some with extensive IT and communications networks, have fundamentally lower cost operating models. They also use digital methods to reach customers at a much lower cost.

At the very least, CSPs' opportunity to participate in accessing new revenue streams depends on using the methods of webscale providers. Some CSPs view the prospect of digital transformation as a threat that they can turn into an opportunity if properly embraced. They realize how really difficult it is to transform the long-established ways of telecoms. Those that figure it out may have massive competitive advantages which they can parlay into valuations that are more like that of

technology companies.

Conclusion

An improved financial standing – measured by revenues, margins or valuation – is at the heart of CSPs' motivation to invest in digital transformation. Although concerns persist on the viability of some of the new business cases and the absence of mature tracking mechanisms to review progress of transformation initiatives, CSPs will continue to make steady investments in digitizing their infrastructure and operations.