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Serving the Enterprise Network Market:
The Transformation Requirements
Communications Service Providers Face



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The disaggregation that happened to IT a decade ago (from mainframes to desktop to cloud) is now set to happen to the network. Here, once again, software has disrupted the traditional integrated value chain. Enterprise network functions that previously were delivered on the NEPs' equipment, over connectivity supplied by Communications Service Providers (CSPs), can now be delivered directly "as a service" by almost anyone, using standardized, virtual/software functions.

While some in the telecom industry have been resistant to the notion that enterprise clients are seeking to pursue this virtual option, new Accenture research on the enterprise market suggests otherwise. The Accenture Enterprise Survey 2016, which surveyed 363 small, medium and large enterprises, shows that the market is ripe for network virtualization. Nearly all respondents (95 percent) believe that network services will be virtualized, and 89 percent believe they themselves will evolve to an "as a service" model within the next three years. In fact, 33 percent are already using such solutions.¹

Enterprise respondents also expect network virtualization to lead to cost reductions. For 72 percent of companies, the cost to maintain the network is the key criterion influencing their decision. And those who have already pursued network virtualization say they are already seeing cost reductions averaging 25 percent. As additional benefits, these early adopters also cite speed, reduced cost of ownership and increased security.²

¹ Accenture Enterprise Survey, 2016.

² Ibid.

Limited Window of Opportunity for CSPs

The movement toward virtualization accordingly continues apace. Businesses plan to invest between 20 and 30 percent of their IT budget in network virtualization services in the next three years. Two-thirds of businesses plan to adopt network virtualization for all network services, with 12 percent planning a “big bang” migration. And because of the software-driven nature of network virtualization, enterprises are initially turning to technology vendors and system integrators. Fully 80 percent of respondents prefer to deal with one single service provider for network virtualization services. Moreover, provider location is no longer a barrier, as 35 percent of respondents prefer to deal with service providers from any location for their global IT.³

In summary, enterprises are now, or soon will be, moving ahead with network virtualization; and if CSPs do not gear up to offer it, enterprises will look elsewhere.

³ Ibid.

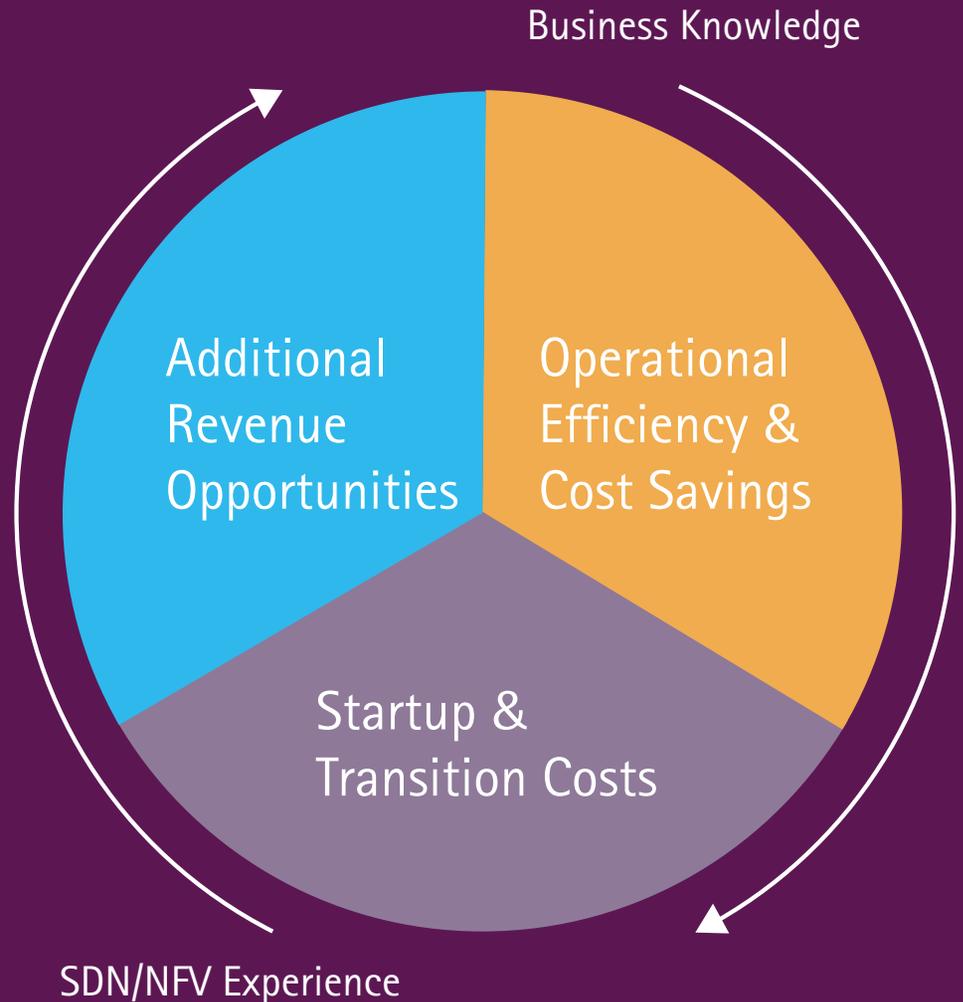


Unlocking the True Benefit of Software-Defined Networking

Sensing the opportunity, several CSPs have begun to offer network virtualization services for business customers. However, they are still in the vanguard. Among companies who are not yet using network virtualization, only half have been approached by, or are discussing services adoption with, a communications provider.⁴

As CSPs seek to address this opportunity, software-defined networking can be a powerful item in their toolkit. And as Figure 1 summarizes, while transforming to this model does entail transition costs, it does also provide significant new revenue opportunities through added services to enterprise clients, while also enabling new cost savings and improvements in operational efficiency. Using Software-Defined Everything can help enable a "3x3" transformation – cutting a third of CAPEX and a third of OPEX, while providing at least three times the service agility.

Figure 1: SDN/NFV Is a Powerful Transformational Tool



⁴ Ibid.

The Major Changes Required of Communications Service Providers

However, for Communications Service Providers to take advantage of this software-enabled opportunity, major transformation will be required in several areas: Network Transformation, Products & Services, and Next-Generation Operations. Figure 2 illustrates the dimensions of the transformation that will be required.

NetX Transformation

First, before CSPs can meet enterprises' evolving network needs, many of them will need to undertake significant technical transformation.

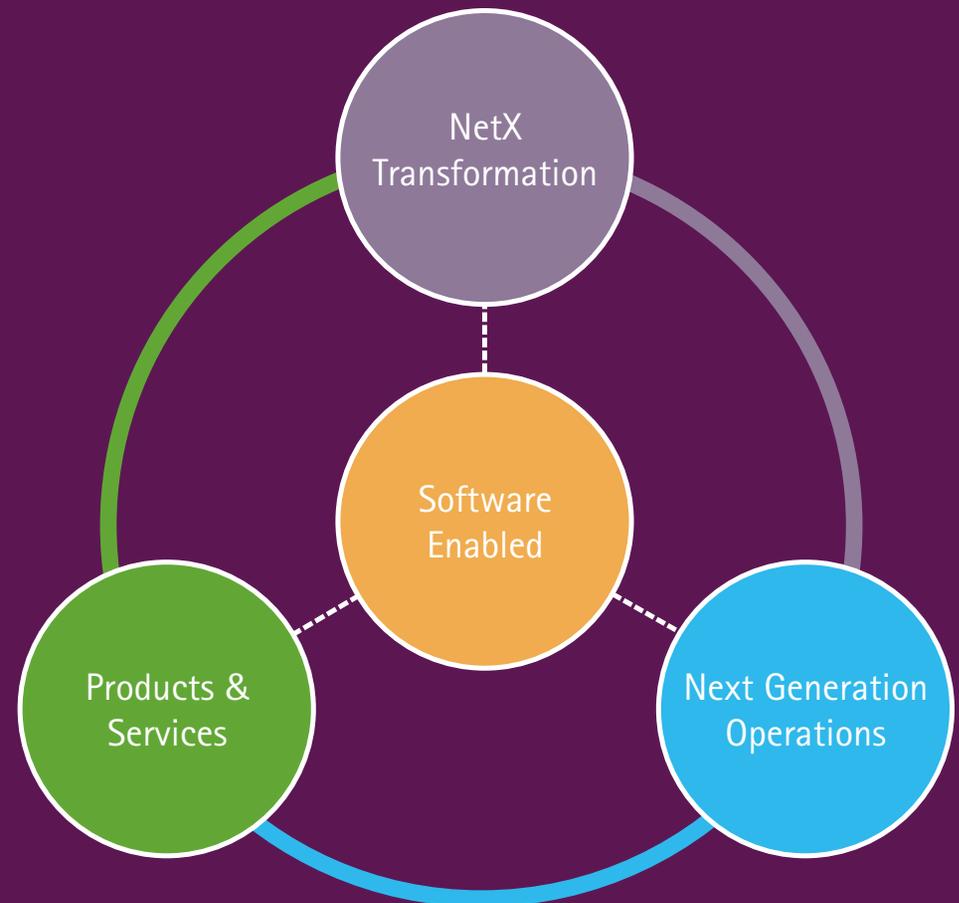
CSPs will need to establish comprehensive network functionality using software running on a cloud-based, virtualized infrastructure—all of which is orchestrated by software across different network layers and technologies. The automation, analytics and real-time operations made possible as a result of virtualization will also mean a complete overhaul and simplification of traditional OSS/BSS systems.

Communications Service Providers technology strategies will also need to address additional requirements, including:

- Migrating legacy products, customers and network, first to IP and then to SDN/NFV.

- Mitigating customer and network encroachments from Webscale providers.
- Acclimatizing to very rapid technology changes.

Figure 2: Components of the Transformation Journey



Products & Services

Multiple new revenue opportunities will be made possible by network virtualization. A number of additional value-added services can be bundled and provided from the cloud, such as security services (firewall), mobility, video services (video conferencing, security cameras, content delivery network) and unified communications services.

To deliver these services effectively, however, providers will also need to manage the complexity of a very large ecosystem. The industry will move away from a small number of large suppliers in the network providing vertically integrated solutions, to a large number of small suppliers (focused on vCPE, vSecurity, vCollaboration, vMobility, etc.) specializing in specific layers of architecture, such as orchestration, VNF and Telco Cloud.

Vendor-agnostic service chaining will increasingly mean that entirely new products/services will be potentially launched (SD WAN, SD MVNO), and new dimensions of Agile/DevOps will also be required. The automation, analytics and real-time operations possible as a result of virtualization will also mean a complete overhaul and simplification of traditional OSS/BSS systems.

Next-Generation Operations

Finally, the technology transformation required to become a digital Communications Service Provider will also trigger a much broader set of operational changes. To take full advantage of the opportunity, CSPs will need to embark on an end-to-end transformation journey and become a new breed of company: an Integrated Digital Services Provider (IDSP). This will require an integrated approach to operations, beginning with migrating to the new network and decommissioning the old network. Other requirements will include:

A new operating model:

- Transforming SLA from 5x 9's to Customer Experience at peak usage.
- Setting interoperability and certification standards.
- Partnership proliferation, vendor management, and vendor risk mitigation strategies.

A new approach to talent management:

- Collapsing IT and Network into a single technology organization.
- Transforming and upskilling Engineering from circuits to software.

A new financial model:

- Revamping vendor networking pricing structures; moving from hardware to software.
- Selling application delivery versus network products.

This journey starts with the customer and ends with the customer. And along the way, underlying network, systems, people and processes will all require transformation.

Conclusion: Marshalling Support for the Challenge of Transformation

The virtualization wave is set to hit the network in the next couple of years, with multiple implications for CSPs. The new digital network of the future – underpinned by the cloud, software-defined network (SDN) tools, and network functional virtualization (NFV) – will be a flexible business enabler, providing an opportunity for Communications Service Providers to win against the digital giants and to be a disrupter, rather than the disrupted. However, the technology transformation required to become a digital Communications Service Provider will also necessitate a much wider business transformation affecting multiple areas, ranging from people, operations and process to customer experience and product.

Evolving from a traditional service provider to an Integrated Digital Services Provider is a complex task. You want to reduce cost, reduce disruption, and get to the value... fast. But it's also clear that what got you to where you are now, won't get you to where you want to go.

To address the growing enterprise network opportunity, Communications Service Providers will need to move from a traditional network to a digital network:

- From operating a hardware-based network... to operating a digital network platform using software.
- From working with a few hard-wired vendors... to creating an open environment that can be rapidly extended into new industries.
- From confronting regional limitations... to running a global infrastructure.
- From being constrained by corporate boundaries... to providing a seamless connection to third-party cloud ecosystems.
- From employing a workforce that "maintains"... to empowering a workforce that innovates.
- From being pigeonholed as a "dumb pipe"... to inventing the intelligent, self-learning digital platform that makes you the preferred choice for your customers in the future.

To summarize, significant help will be required with this overall transformation – embracing people, operations, process, customer experience, products and technology ecosystem. Service providers will need to manage the complexity of a very large ecosystem. Assistance will also be required to package together all the solutions from the technology vendors; provide the services and manage the lifecycle; use Agile and DevOps methodologies to meet marketplace needs; and reinvent operations and business support systems. Communications Service Providers can benefit from the assets, resources and expertise of a large, neutral transformation partner that can help them address all these exacting requirements in a cohesive and orchestrated fashion.

For more information

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