

Setting the Foundation for Telecom Innovation

By: Manjeet Dhariwal

The telecom industry's future is filled with opportunities and risks in equal measure. Telecom service providers must cope with increasingly demanding customer bases, siloed processes and systems, and IT budgets that may not fit business aspirations. Moreover, there is no guarantee that telecom companies have the experienced IT staff required to either meet their technological and strategic goals or implement new solutions and advancements fast enough.

Communications Service Providers (CSPs) that are able to successfully navigate these challenges, however, will achieve stronger operational agility, open up new revenue streams, and increase customer engagement and satisfaction. By putting the right building blocks in place, service providers can position themselves to successfully execute and capitalize on telecom innovation strategies.



Building block #1: 'Single-pane-of-glass' portal

A number of telecom service providers have successfully branched out from their core capabilities to offer customers additional features and packages. In many cases, these efforts are hampered by their execution and siloed setups. In particular, service providers separate their various offerings into distinct customer-facing portals, requiring their clients to manage multiple platforms and move between them to access every single tool included in their contracts.

This type of arrangement could have a significant negative impact on the customer experience, creating friction with telecom clientele. In today's telecom environment, that friction could be devastating for service providers.

Enhancing the customer experience is one of the most important competitive advantages an organization can give itself. In fact, according to an Ovum survey, the majority of respondents reported that [improving user satisfaction](#) was their "most important strategic response" to increasing competition and customer expectations. High user satisfaction creates loyalty, reducing churn and driving greater profitability.

Uniting disparate services and condensing them onto a single, accessible platform can have a profound impact on customer satisfaction. Rather than forcing customers to navigate between several interfaces to change various aspects of their accounts or manage their menu of services, telecom companies can offer a single-pane-of-glass portal to handle every request.

Cloud-based portals dramatically improve the customer experience, allowing users to manage all of their telecom services—including on-demand bandwidth, SD-WAN and firewalls—through one interface and without requiring assistance. And telecom users are growing more interested in self-service tools to manage requests and customer service issues. In 2018, Forrester Research listed [self-service enablement](#) as one of the most important forces in customer service, as traditional points of contact wane in popularity. And [another survey](#) stated that 85 percent of global respondents believe that their top business driver is to deliver an improved customer experience, which will

lead to positive top- and bottom-line growth.

In addition, such portals enable service providers to roll out new features to their customers faster than ever before. A 2017 Frost & Sullivan study revealed that 90 percent of telecom providers believe that integrated, cloud-based platforms [accelerate time to market](#). To support that further, according to a recent [2018 Deloitte study](#), “companies are 2.6 times more likely to prefer acquiring advanced innovation capabilities such as AI through cloud-based services versus on-premise solutions, and three times more likely to prefer as-a-service to building these capabilities themselves.”

The combination of accessibility, ease-of-use and faster service release will increase customer satisfaction levels for telecom companies, providing a critical competitive advantage over other players in their markets.

Building block #2: End-to-end automation

Telecom innovation is not possible without a comprehensive layer of automation underpinning systems, infrastructure and services. For example, automation is key to unlocking the full potential of cloud-based portals. Without this technology, telecom service providers would not be able to offer customers self-service capabilities and build out network capabilities on demand. Top-down automation provides the flexibility needed to connect cloud portals with network controllers and orchestrators, making true self-service possible.

Automation also paves the way for faster service delivery, allowing vendors to offer advanced telecom services like Software-Defined Networking (SDN) and Bandwidth on Demand, providing enhanced business value to their customers.

Automation needs to be a fundamental component to all layers of the telecom stack, including at the OSS/BSS level. Core processes such as network configuration, fault management, network inventory and service provisioning can all be dramatically improved through automation. Achieving a degree of sophistication in this regard is a prerequisite for more widespread innovation and transformation.

Laying this technological groundwork now will pay off over time as companies look to implement more advanced telecom capabilities like SDN and Network Function Virtualization (NFV), bridging legacy processes and infrastructure with new systems. In this way, telecom service providers can improve service delivery and performance today while building toward the future.

Building block #3: On-demand services through virtualization

Virtualization is the final piece to achieving telecom innovation and digital transformation. Once companies have sufficient automation in place, they can implement virtualized platforms that support on-demand service delivery.

Many of the leading voices in the telecom and technology industries, including [Cisco](#) and [Gartner](#), expect virtualization to fundamentally change the way telecom services are deployed in the coming years. By virtualizing aspects of the network, telecom companies can centralize service delivery for enterprise customers and offer a wide variety of on-demand features like compute and storage.

Going further, features like NFV, SDN, SD-WAN and Virtualized Network Functions (VNFs) can be created and added onto existing services at any time, allowing for more flexibility and capabilities than ever before:

- **SDN:** SDN shifts network control processes away from physical controllers so it occurs within the software itself. Using this technology, service providers can offer Bandwidth on Demand and other features that allow customers to expand

network capabilities whenever needed—and be billed on a usage basis.

- **SD-WAN:** SD-WAN allows for expanded network flexibility, improving application performance at branch offices and other remote locations.
- **VNF:** VNFs can come in a wide variety of packages, ranging from security tools like firewalls and intrusion protection to virtualized network components like routers.

Telecom companies that take advantage of this opportunity will be able to offer their enterprise customers more services from a single provider, packaged in one portal.

Laying the foundation for telecom innovation

To remain competitive in the telecom industry, vendors will need to offer clear value-adds to potential customers. Such differentiators will also be necessary to keep existing clients happy and to reduce customer churn.

Laying down these core building blocks—singular, cloud-based portals, end-to-end automation and on-demand service—will establish the technological foundation needed to create new revenue streams and improve the customer experience. Forward-thinking service providers will be able to bring more customers on board and will ultimately be more competitive in their marketplaces by offering more features, differentiation capabilities and easy-to-use interfaces and customer portals.