



[www.pipelinepub.com](http://www.pipelinepub.com)

Volume 18, Issue 5

## Delivering Digital CX with a DT Reset

By: [Ramu Bodathula](#), [Helen Jiang](#)

Digital transformation has been at the center of broadband service provider efforts for several years now, and yet very few are realizing the fruits of the time, energy, and resources they've invested. According to [McKinsey](#), failure rates for digital transformation projects in the industry are estimated to be as high as 70 percent. Perhaps unsurprisingly, operators are still struggling to deliver truly easy, intuitive, and accurate experiences for customers.



With the confluence of unprecedented government subsidies to expand high-performance broadband to the underserved, the rapid pace of innovation in access network technologies and the influx of new entrants, established providers are running out of time to transform their operations.

### What's holding digital transformation back?

We see three predominant conditions that hinder the efficacy of digital transformation programs in the industry.

#### Culture gap

Digital transformation is about technology and processes, but the cultural change required often gets lost in the shuffle of large transformation projects. Changing the processes to create a digital culture is a broader challenge but is vitally important to change the outlook and direction of the

operator. This can be especially true when it comes to network operations and engineering collaboration with IT.

### **Systems first**

Traditional vendors and systems integrators that offer to digitally transform a business attack transformation from a narrow systems perspective that ignores the primacy of customer experience and the expectation for immediate, intuitive, and personalized engagement. The prospect of becoming a digital service provider is slim if the business cannot break away from thinking that upgrading and enabling services-driven back-office systems will transform them into a digital services provider.

### **It's all software now**

With the advent of software-defined networks and standardized APIs, the very real fundamentals of managing and orchestrating the physical network to deliver customer experiences is undervalued, even ignored. While it seems counter to the message above, such complexities as disparate data and network models, rampant data integrity issues, a plethora of unsynchronized inventories and the multitude of different technologies in the physical network cannot be dismissed as “old school” or the vision is doomed to failure.

There are two fundamental principles when it comes to successful outcomes of digital transformation programs. First, success depends on the business's commitment to delivering the desired customer experience over digital channels. Second, the degree to which businesses can continue to blend previous generation network services and infrastructure into a newly digitalized business model will determine success in service offerings. This includes the ability to adapt to new physical delivery models, as networks continue to evolve, and as new technologies are deployed or combined to create entirely new services.

## **Getting to desired customer experience**

Digital transformation is bound to fail when the focus of the effort is on anything but delivering the experiences that operators intellectually understand their customers want. It's not a secret to know that over the top (OTT) players have eaten the operators' proverbial lunch because they better understood how to deliver and keep delivering desired customer experiences. Their approach was simple: focus on customer experience first and then work downward to enable that experience. Think about personalization and the ease of binge-watching as two great examples. But how can operators do this, given the conditions mentioned above?

At the business systems level, some operators are considering saying, “let's start fresh,” and building a service and experience roadmap underpinned by a digital culture that leverages cloud-native commerce services. In other words, step around legacy business systems wherever possible to really commit to building a digital culture for a digital service provider business.

Of course, this is no small recommendation as creating a new business has associated risks and costs, but a growing number of service providers are taking precisely this approach.

Others are taking a more targeted approach to the systems that can be completely leapfrogged without going so far as constructing a new digital brand. High-value targets for building afresh rather than trying to fix old include the product catalog, converged charging, and even billing and invoicing. With each of these applications, a forward-looking deployment—evolving from a starting point of managing all new customers and new transactions and orders in the new platform rather than depending on massive, high-risk migrations—can be surprisingly cost-effective. It can also unlock the immediacy of enhanced customer experience and accelerated delivery of personalized offers.

## Moving to contextual engagement

This leads to the second point for successful digital transformation: moving to contextual engagement. Understanding customer behavior at a granular level can reap huge benefits. Telecom operators often focus on selling and supporting their core services to current and potential customers.

And this is possible by leveraging the big data capability to which all operators have access. Big data enables operators to effectively promote these specific products and offers by placing the right offer at the right time to the right set of customers. A contextual platform provides the means to gather customer data so that the offers are placed on digital channels. Digital technologies, fueled by analytics, have enabled telecom operators to execute this one-to-one personalization. Done right, personalization enhances customers' lives and increases loyalty by delivering messages that anticipate customer needs. These customer benefits translate into company benefits as well. Personalization can reduce acquisition costs by as much as 50 percent, can lift revenues by 5 to 15 percent, and can increase marketing spend efficiency by 10 to 30 percent.

## Innovation in the OSS layer

Now we take these digital aspirations and the power of intuitive experiences and move to the far less sexy world of actually enabling fixed broadband networks to enable rather than undermine realization of these goals. Let's focus on how to tackle the complexities of OSS, where so little innovation has been delivered, to enable it to seamlessly integrate into the digital experience. There are two legacy areas that should be prioritized for attack because of the systemic barriers left behind by years of new technologies being layered upon old technologies.

The first is the physical and logical inventory, or perhaps we should say "inventories," as having multiple inventories segregated by technology and operations is much more the norm rather than exception in the industry.

Graph database technology can be used to consolidate inventory, across all technologies and all the disparate network models within a technology, to give you one single source of truth for customer inquiries and transactions into services available to them, at their unique address.

A critical additional benefit is long term scalability and sustainability, the result of removing the reliance on mapping and a static relationship between data model and technology. This scalability and sustainability are delivered by the following:

- One single source of truth compared to a federated solution is vital to enable flawless service delivery. Accuracy of the inventory system forms the foundation for accurate serviceability, service order management, and provisioning and activation.
- Real-time inventory collection and validation powered using real-world graph database models offer significant advantages in managing hybrid networks over static relationship database models.

The second area for focus is migrating network-facing functions, which are in general monolithic, to a cloud-native, microservices-driven architecture. The key components of a successful migration are:

- Enabling automation and workflow-driven orchestration to improve operation efficiency
- Embracing standard, Open APIs for integration;
- Migrating from managing of network infrastructure in silos to autonomous network management encompassing all physical, logical, virtual and hybrid resources;
- Improving operational efficiencies through analytics, move towards zero-touch service delivery.

Truly successful transformation demands an unwavering focus and commitment to an intuitive and engaging customer experience. It's only possible with a cloud-first, digital native orientation, in harmony with a clear-eyed, hard-nosed attack on the legacy complexities embedded in the physical network.