

## Leveraging Big Data to Improve the Customer Experience

By:

Notice: Undefined index: issue in /home/http/pipelinepub.pubspoke.com/article.php on line 215 For most communications service providers (CSPs), understanding the customer is no simple task. Back in the day when connectivity meant a single analog landline in the home, all you needed to know was whether the customer had connectivity and where to send the bill—and that the bill was actually paid on time. In today's multi-account, multi-device and multi-user households and businesses, getting a true understanding of customer demands, decision processes, expectations and methods of communication and payment must now be based on a large-scale data management strategy. This means a comprehensive coordination of information gathered from customer acquisition, OSS, BSS and CRM systems, as well as a variety of online channels, and leveraged effectively as part of a data management strategy focused on all aspects of the customer lifecycle (as seen in Figure 1).



Figure 1. Centralized Data Management Is Essential to Overseeing the Customer Lifecycle

Source: Netcracker Technology

(Click to enlarge image)

Just a few years ago, CSPs probably never imagined that one of the most influential channels for customer information would be social media and that addressing a customer's problem through social media can impact a whole slew of customers. The bottom line is that CSPs that want to excel at the customer experience must build a data management strategy that facilitates getting the right product, service or response to the right customer at the right time using the right channel. The end result of such a strategy will not only be a better customer experience but also greater service alignment with customers, higher ARPU and reduced customer service costs.

While all of this sounds very forward-thinking, the reality is that CSPs' siloed systems have segmented the steps of the customer journey outline above into completely separate processes. Systems in silos means valuable data in silos, and significant bottlenecks in building a customer-centric data management approach. We talk a lot about the marvels of big data and advanced analytics and their potential for dramatically improving the experience customers of service providers have. The more data and contextual information that service providers can harvest and use, the better opportunity they will have to deliver high-value services to their customers based on location, preferences, transaction history and more.

Yet CSPs' organizational structures pose one of the biggest challenges to successfully using big

data and advanced analytics to create the optimal customer experience and service journey. For each new digital service, there's a temptation to create a separate silo of systems, making it tougher to get good data from one unified source. Breaking away from that requires a strategy that focuses the entire organization on a data strategy that puts the customer journey front and center.

## The Optimized Customer Journey: All About the Data

Understanding the customer journey is no simple task, because that understanding must embrace the processes and functions at every step of the customer lifecycle. That lifecycle can have many facets, as it extends from the beginning stages of learning about customers' requirements and expectations to the increasingly complex journeys customers take when they want to buy something or get something done. A typical journey for a customer creates substantial data at every step of the path, as seen in Figure 2 below.

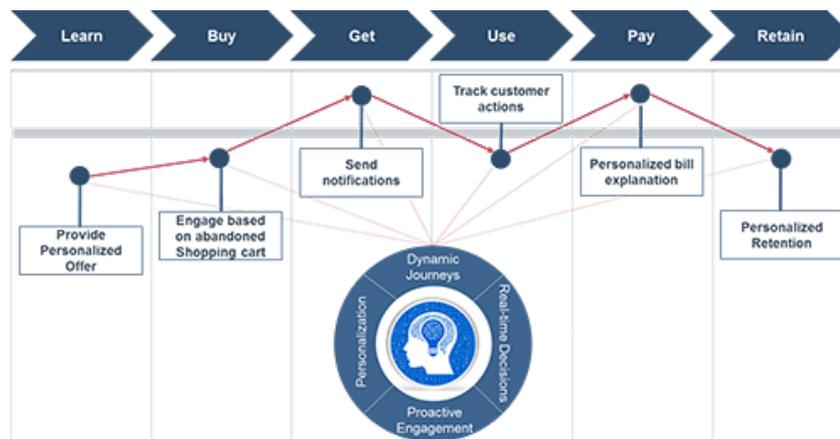


Figure 2: The Customer Journey: From Education to Retention  
Source: Netcracker Technology  
(Click to enlarge image)

Successful understanding includes undertaking the following steps:

- 1. LEARN** – Customer Acquisition Stage 1 – The provider first learns that the customer is interested in a certain service. Depending on the channel of preference, customer information is gathered via the call center, storefront or online channel. User name, address, phone number, device of preference, service bundle and so forth are all captured at this point. Data captured may come from a fixed or mobile POS terminal, web channel or CRM system.
- 2. BUY** – Customer Acquisition Stage 2 – The customer actually sets up an account, signs on for services and services are activated. Based on the service bundle, at this point system activity creates critical data within the OSS layer: the activation, order management, and related fulfillment systems.
- 3. GET and USE** – Customer Management – The customer journey is based on service consumption, and each transaction should be monitored to gain insight into the customer's usage or spending patterns. Valuable data may come from BSS, customer care or related systems.
- 4. PAY** – Business Management – The customer receives the bill and the subsequent demand for payment. Here, the BSS layer captures the most valuable data around service detail, consumption patterns, payment timing and any other related issues tied to revenue collection.
- 5. RETAIN** – Customer Retention – All the data from the above sources is now of significant value to ensure that every step along the customer lifecycle has had a positive outcome.

An effective customer journey can only occur if a big data strategy is in place to gather information from many diverse sources. For service providers, a big data strategy needs to tap into all of the order-to-cash-to-care systems, as well as a variety of internal data such as network performance

statistics, customer call records, billing details, service plans, and customer location to get the most accurate understanding of where the customer is in the lifecycle. All of this will be structured data, and the challenge comes if the data is housed across many different, hardened silos. In that scenario, it will be costly and time-consuming to collect this data.

Along with structured data for customer experience purposes, various unstructured data should also be collected from outside the service provider's systems. These sources include such things as Twitter feeds or Facebook updates—basically, any external source where customers indicate whether they like or dislike their services or whether there is a problem. In many cases, these data sources provide some of the greatest insight into the customer's mood and psyche—and thus can be some of the most useful in making course corrections, changes, or updates to services.

Taken together, a big data strategy that looks at all relevant data sources and then parses data based on specific business fields, importance, real time behavior changes, and/or risk characteristics will give the service provider the ability to make more proactive decisions for its business. We must not forget, however, the human element in all of this strategy. The roadmap for a proactive customer experience doesn't come unless technology (which could be big-data specific or based on system consolidation or digital transformation goals) AND organizational strategies are in place. That roadmap must be built into daily operations at every level of the organization. In other words, CSPs must align the appropriate internal resources with their analytical skills and ensure each relevant business area feeds into the larger data management strategy.

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Across today's telecom landscape, the market leaders are the ones who have integrated analytics into everyday discussions that reach from the leading edges of the web to deep inside the billing system. CSPs must build on the insights—into segment needs, product preferences, communication performance and more—that they gain from a holistic customer experience management plan and be willing to adapt procedures based on them. Only by aligning people's long-term goals with an overarching customer experience management process that unites systems and processes will the CSP be able to reap the maximum benefits of the data that can ultimately keep the customer happy.