

Big Data Helps See the Big Picture

How subscriber metrics are used is as key to satisfaction as collecting info

BY K.C. NEEL

As multichannel video programming distributors strive to boost subscriber loyalty in the face of increased competition, improving both customer care and network reliability is tantamount to their success.

Collecting and managing the Terabytes of data that providers receive from their customers and networks each day is a major part of delivering on those objectives.

Collection is easy — operators have been doing that for years. The trick is to analyze that information, then act and react to it in a timely fashion that improves subscribers' perceptions of the customer experience.

To use big data effectively, distributors should look at their business decisions through a customer-experience lens, rather than just from an operations and technology standpoint, said Chris Menier, vice president of cable and media for Guavus, a data analytics company.

PARSING THE NOISE

Case in point: Operators receive tens of thousands of network alerts and alarms every day, Menier said. They can range from signal noise on a specific node to major blowouts.

Big data analytics helps a network operator figure out how those alerts affect a customer's experience, and helps parse how subscriber issues can be resolved with minimal impact to network operations or the bottom line.

Operators don't need more information, Menier maintained. They need timely, contextualized information.

Breaking down the customer-care, operations and marketing silos and using all of that data simultaneously to solve problems and enhance service can help providers to improve the customer experience. That, in turn, leads to higher network promoter scores, lower churn and lower operational costs.

Sifting through operational data at a granular level doesn't mean gathering more infor-

mation, Menier said. It means using information that operators are already collecting more effectively.

For instance, rather than rebooting every modem overnight after an alarm is tripped, Guavus's analytics can detect which modems are being affected and automatically send those customers a message explaining the problem and the solution. This approach both pinpoints where the operational problems reside and reduces calls into call centers and truck rolls, he said.

"We can turn detractors into promoters," he said.

Over-the-top providers are delivering this kind of service now. Amazon Video, for instance, constantly monitors its quality of service and network operations. When something is amiss, Amazon subscribers receive messages informing them of the problem and

are issued credits commensurate with any interruption, said Kerry Sims, vice president, global solutions and smart infrastructure at Hitachi Consulting.

"This is the kind of proactive response consumers are increasingly demanding," Sims said.

Because OTT providers are fully IP-configured, it's easier to implement big data, Sims said. And it takes more than just network monitoring to meet customer-satisfaction goals.

INSIDE, OUTSIDE INFO

Information must be collated from both inside and outside a provider's walled garden, including data on customer interaction via phone



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call, email or chat; social-media chatter; and even factors such as weather.

Effective use of big data "is like opening the aperture of a camera lens to better understand the whole scene," Sims said.

AT&T analyzes more than 100 factors known to affect customer satisfaction, according to Nicole Rafferty, AT&T Entertainment Group's vice president of customer experience and operations support. They include everything

from call completion rates to terrain to posts on social media.

AT&T makes about 30 billion (yes, billion) overall service-assurance measurements across its wireless and wired networks in a typical hour, Rafferty said. It's all aggregated and analyzed in real time to derive insights that help AT&T manage its network.

Customer-service agents use big-data analytics to parse the best way to remove those pain points, reducing time spent on the phone and improving the customer experience. For example, a virtual assistance speech-recognition tool makes it easier for AT&T subscribers to reach the right agent to solve their problems quickly and without a lot of number pushing or rerouting. The company worked with Interactions LLC to develop the tool, which understands when customers speak in complete, conversational sentences.

Since launching the product last year, AT&T has seen a 53% reduction in the number of callers who dial "0" to speak with an agent; most were able to resolve their issue without talking to an agent at all. Misdirected calls were down 36%, and the time customers spent with the automated system fell 28%. The tool should be in place company-wide by 2017, Rafferty said.

Comcast is using information from customer interactions to improve and personalize the call-center experience. For example, agents can access real-time, relevant context about a customer's account to smooth customer interactions, said Comcast spokeswoman Jenni Moyer.

Agents can make recommendations based on prior interactions, the reasons the customer is calling at that moment, past service issues, etc.

"We can use this information to provide updates in our IVR system that gets customers to the right type of agent or information based on why they're calling," Moyer said. "We are also piloting technology to get the caller back to the same agent they talked to earlier."

AT&T has created what it calls the Big Data Center for Excellence to gather and analyze the Terabytes of data it receives every day. The center works with AT&T's business units to understand and eliminate pain points for customers, and makes the company more proactive.

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NICOLE RAFFERTY, AT&T ENTERTAINMENT SERVICES

the burden off the customer," Rafferty said.

Predictive and proactive care may be the Holy Grail of improving the customer experience, but it's really only one piece of the whole big-data picture, Matt Roberts, director of BDSI marketing at Amdocs, said.

"Some situations and parts of a company's operations are better off when analyzed in real time," he said. "But not everything has to be analyzed in real time."

Using real-time big data analytics, a service provider can more quickly resolve network issues following customer calls and, perhaps more important, identify a customer's issues before they he or she is even aware there is a problem. A service provider can either fix the problem or reach out to

let a subscriber know of a pending issue in advance and offer customers a salvo to ease the pain, Roberts said.

SETTING OTHER OBJECTIVES

Big data can also help operators also make strategic and long-term plans and that doesn't necessarily require real-time analytics. For instance, by taking network data and overlaying it with customer data, an operator can determine when and where to upgrade plant first, Roberts said.

Big data can also be used to predict when components are likely to fail and be replaced before failures happen. It can pinpoint where new product launches will have the most impact, or determine which products are going to give a boost to customer satisfaction, Menier said.

Everything needs to be filtered through the customer lens, and big data analytics can help operators do that more efficiently and effectively.

"Big data has become a tangible entity," Roberts said. "It's gone from solving problems to helping make strategic long-term decisions." □