

## What You Don't Know Will Cost You: Analytics Enrichment to Manage and Grow Revenue

By Matti Aksela, Malla Poikela, Nancee Ruzicka

Mediation is a source of an immense amount of useful data that is no longer exclusive to billing. Numerous critical operational processes and systems rely on crucial event data captured from the network, but external data representations (XDRs) alone cannot paint a complete picture of customer experience, nor can they protect revenue and reduce risk. As complex as converged services and usage transactions are, without an infusion of customer data and interactions, operators see only part of the picture.

### Is Big Data relevant to your business strategy?

You can't go far in the telecommunications industry—or nearly any other industry, for that matter—without hearing about the importance of Big Data. With voice and text revenues declining, the art of applying analytics to customer data has moved into the spotlight. By monitoring how consumers are using data, communications service providers (CSPs) hope to discover new revenue streams and create more personalized marketing offers.

### Big Data can be a big mess

The emphasis on Big Data has inspired a lot of CSPs to pay closer attention to what their customers are actually doing. But without a way to automate interactions and create an operational analytics program that automatically learns and adapts to use cases over time, Big Data can create more work than it's worth. No CMO wants to sit in front of his or her computer sorting through 100,000 different customer profiles and try to manually predict which customers will "top up" to watch a video on their phones, then try to figure out which marketing campaign will be most effective.



That's why, in its raw form, it's hard to make Big Data relevant for any business strategy. The information is simply too diverse and disorganized to use, and not every solution fits the bill. In a research report published earlier this year, Accenture noted that 93 percent of the operators it surveyed said they needed new or improved products to help with analytics. With so many CSPs saying they need

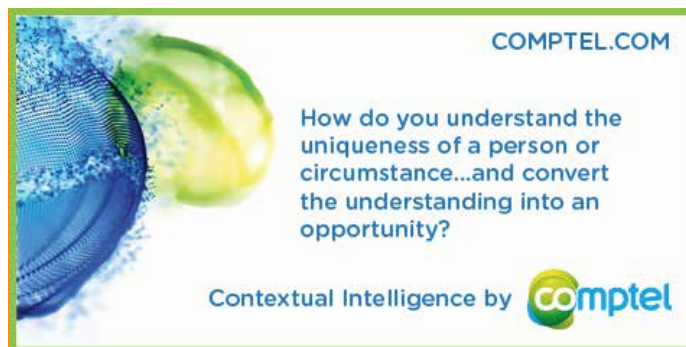
better tools, it's no wonder they've been disappointed with Big Data so far—if you can't properly sort and operationalize your company's data, then it will never be useful for building better relationships with your customers.

One key aspect to utilizing the data is to make sure it's

available in a timely manner. Although data doesn't really have an expiration date, expecting to get the same usable value from it after waiting several months to analyze it just isn't realistic—but purely focusing on the event at hand isn't the solution, either. Creating an individual profile from a customer's data and combining it with the true context of the customer is key, as is the importance of combining streaming real-time data with traditional, slower-moving data sources.

The future of marketing is networks, and the future of networks is marketing

Big Data is also about breaking down silos. Rather than treating your network as one pillar of your business and your customers as the other, analytics is applied to data throughout the business; by bridging silos across the organization, CSPs can create a better end-to-end user



Not for distribution or reproduction.

experience. And because of the vast volumes and huge dimensionality of this data, the way to build bridges efficiently is through machine learning and predictive modeling, not time-consuming efforts to work within the scope of humanly manageable data.

### The revival of mediation in an analytics world

Mediation in telecom has traditionally been restricted to the collection and distribution of data from and about the network to support billing and assurance. However, the management of all the events related to a customer – not just billing transactions – is critical to fully understanding customer behavior and better managing both the customer experience and the revenue impact. As customers demand immediate access to an infinite number of applications using a wide variety of devices and access methods, the need for real-time and sophisticated Event Management has grown. Event management is more than the collection and processing of xDR's. Event management addresses the gamut of customer-related events. By supplementing event management capabilities with predictive analytics, operators are empowered to better understand the impact of customer behavior on revenue, reduce revenue leakage, prevent fraud, and offer products targeted to specific customer needs.

The biggest challenge is data volume. Millions, even billions, of events are collected every day from network probes and management systems. Add to that the specific nature of individual customer behaviors in near real time and you have a daunting task that can only be accomplished using sophisticated analytics and automation. Predictive modeling that incorporates

multidimensional, nonlinear analysis and millions of values from dozens of sources delivers customer insight and revenue-management benefits beyond what is possible given the reality of existing stand-alone systems and data.

Revenue assurance and fraud are also major concerns for network operators and connected service providers. The application of sophisticated analytics at the resource layer correlates data from multiple sources inside and outside a company's business to rapidly detect and mitigate fraudulent activity. A supercharged mediation engine that's combined with sophisticated customer analytics and is capable of real-time, large-scale data collection, correlation, processing, and distribution is necessary in order to understand the nature of fraud and revenue leakage so that these problems can be prevented.

In addition to recovering lost revenue and reducing risk, there is growing demand from marketing and product-development groups to define, promote and sell products that individual customers actually want. Using analytics enrichment, CSPs can offer more relevant products by understanding who the most likely customers are for each product and which ones are most suitable for them. Without offending or upsetting those customers, each touchpoint becomes a sales opportunity based on predictive intelligence rather than human assumptions.

The ability to manage the breadth of customer events and data, apply sophisticated analytics and deliver actionable results in near real time helps operators recover lost revenue, understand the impact of customer behaviors on revenue generation and identify opportunities to increase sales and customer satisfaction.

Comptel's predictive and automated analytics solves the problems of Big Data with powerful, machine-learning capabilities that ensure that automated actions are taken at the right time for the right audience with the right context. In this way CSPs can leverage Big Data analytics to customize their marketing campaigns to each individual customer's preferences and unique needs. More importantly, the insights that are delivered are helpful to a company's overall business strategy, making it easier to integrate analytics into operations and customer-loyalty and marketing programs.

