

Making Service Assurance Uber Aware

Being aware seems to be the key to managing our lives as well as our networks. How can management systems get all the awareness they need for service assurance?

By Tim McElligott

When you discover a tidbit of information that surprises you and you feel compelled to share it, how often have you begun your next sentence with the words: “Were you aware...?” Were you aware that Congress passed legislation giving themselves so and so? Were you aware, based on the number of confirmed exoplanets, that...? Were you aware that average call center hold times are still...?

Being aware seems to be the key to managing our lives as well as our networks. To execute service assurance, management systems should be customer aware, device aware, service aware and aware of the customer experience. Soon these systems will have to be aware of traffic conditions in other parts of the network, aware of customer usage patterns and behaviors and be able to anticipate user needs and preferences. “Can we get all that from SNMP messages?” I ask rhetorically.

And since none of these conditions are static, management systems must adapt to new information—in near real time. Having customer-aware and otherwise-aware service assurance systems enables operators to make faster, more intelligent decisions about their networks and services, said Paolo Trevisan, vice president of product management at Accanto Systems, a company that has put all its strategic cards into an adaptive customer service assurance platform.

As Accanto Systems showed recently, operators also can turn their management systems into revenue generating application by making them, for example, road

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Accanto's Paolo Trevisan

congestion aware. The company supplies anonymised signaling data from approximately 17 million of Telefonica's mobile devices to analyze and predict traffic flows in Germany, an application Telefonica then sells to BMW.

"It is a unique way of collecting real-time data about actual customers using the network and selling that as an app to customers like BMW," Trevisan said. "Every new BMW in Germany has this navigational system fed by data from our monitoring system."

Some claim that Google can do the same thing with GoogleMaps and GPS, but Trevisan said signaling data has a richness of information that is real-time and better than anything Google can do.

Mobile data has made even more visible the truth about there being different classes of users. Not every smartphone user is created equal and based on their usage should not be treated as such. Trevisan said there is no way of getting around the reality that different classes of customers will require different classes of service. Customer- and service-aware management tools are the only way to address this reality.

A recent report on mobile trends and data charging by Allot Communications shows that rather than being able to respond to the demands of their users, 48 percent of mobile data providers are curbing usage. Allot says that unlimited or flat-rate data plans have done their job driving usage and growing the market but now that mobile data has gone mass-market, these plans are unsustainable. Most would agree. New charging models are required. And while new volume-based plans are easier to execute, they aren't user friendly. Last year, analysts at Heavy Reading said that 75 percent of mobile users didn't know how much bandwidth they had used and 40 percent were unaware of the penalties for exceeding their limits. And more than 60 percent of mobile broadband users didn't know what their usage cap was.

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A more customer-centric approach is value-based billing and this requires customer-aware solutions including service assurance. Operators can no longer conceive of service assurance and charging systems as non-overlapping magisteria—to borrow a phrase from the late, great Stephen Jay Gould—any more than they could the operationally distinct categories of network performance and the customer experience.

Allot has a suite of network analysis tools called Proactive Analytics that are designed to deliver meaningful business intelligence to operators looking to get more creative in allowing subscribers to use the network and turn that usage into revenue rather than limit usage at the start.

Proactive Analytics allows mobile operators to assess strategic and tactical intelligence, such as the most popular handsets and applications, usage patterns and bandwidth consumption, all useful in developing value-based pricing plans.

Trevisan says that the revenue generating applications operators can introduce and the customer-centric pricing plans for monetizing them are limited only by imagination. The data and tools are available. To assure quality and increase customer awareness, operators only have to begin asking the right questions, such as:

- What are the worst performing network areas or devices?
- What are the most used services?
- What areas are most overloaded?
- Who are the affected customers?
- How are they using the service?

To answer some of these questions Accanto introduced new capabilities for its iCSA platform in November that allow operators to query mass amounts of data based on customer or group identities, by location or by device type. Grouping lets operators pick a set of BlackBerry users, for instance, or to use other selection criteria.

"From our standpoint it is all about understanding what services are used by whom and how they perform," Trevisan said. He said this is even more important in a 4G/LTE environment, which is why the company recently introduced enhanced support for LTE.

This customer-aware focus and targeting the new technology upgrade cycle are keeping smaller players like Accanto and Allot successful, said Patrick Kelly, research director at Analysys Mason. While this may never launch them into the top tier in their categories, they are moving faster than the typical players and have helped make the whole market segment be successful, he said.

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