Accanto Systems combines device and network insights for CEM

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Accanto's iCEM product suite analyzes customer, network and handset data in order for operators to shift from network-centric monitoring to customer-centric operations by creating a single view of the customer experience. While the industry has begun to combine internal and customer-facing key performance indicators (KPIs), it must also relate these results to key network events. By gathering, enriching and using a complete individual subscriber profile, operators can achieve the goal of improving customer experience and engaging in proactive communication regarding network quality improvements.

The 451 Take

Accanto Systems is unique in that it can provide end-to-end insight from both the device and network. The new device-based product provides service-quality metrics by crowdsourcing consumer customers. It also provides two-way communication and a feedback channel for customers. While mobile operators are investing in customer experience management (CEM), providing automated customer-issue processing based on peer group analytics or self-service diagnostics provides a strong return on investment due to direct measurement of call deflections. However, Accanto Systems is a small company that faces large competition from not only network giants Alcatel-Lucent and Nokia, but also operations support systems, business support systems (OSS/BSS) and analytics specialists.

Context

Based in Finland, Accanto Systems provides advanced analytics and CEM for mobile and fixed line operators to manage large data volumes and meet individual subscribers' requirements. The

company has more than 25 customers worldwide that are primarily located across Europe. Five operator customers fall in Europe's top 10. The company also has visibility into 70% of German subscribers. Accanto provides insight for mobile and fixed line operators with use cases that address customer care, network operations and marketing.

Products

Accanto's platform correlates customer- and network-centric data for monitoring and measuring QoE and analytics for individual subscribers. Using algorithms, the intelligent Customer Experience Management (iCEM) suite can identify and prioritize network problems to ensure the least disruption to customer experience and the maximum revenue for the operator. The company offers five product areas:

○ Network Analytics offers analysis of network trends, traffic patterns, and customers, correlations and KPIs.

○ Customer Experience Analytics offers advanced segmentation and near real-time insight into customer behavior.

○ Customer Care offers customer service-usage, experience-quality and root-cause analysis for measuring degraded service experience.

○ Customer-Driven Operations offers business-value-based prioritization and optimization of network based on Quality of Experience (QoE).

○ QoE statistics and two-way communication are facets of iCEM Mobile.

Accanto acquired InstantCEM to offer iCEM Mobile. As a result, Accanto Systems can look at not only network insight, but also on-device experience. The new on-device option provides user-perceived service-quality metrics by crowdsourcing customer data. It also provides two-way communication and a feedback channel with customers. Plus, operators can provide automated customer issue processing based on peer group analytics and self-service diagnostics. Analytics can provide multidimensional views of the customer across location, device and service. The analytics engine can prioritize based on business value like QoE, NPS or capacity for popular apps.

Strategy

The company highlights 14 use cases within the five solution areas, and some of the key use cases follow. A first use case is moving from a network operations center to a security operations center (SOC). In an SOC, analytics can ensure the constant monitoring of all subscriber sessions in hotspots and crowdsource all the users in the areas (including service quality and usage for each subscriber). Bandwidth-hungry applications such as multimedia, video on demand, mobile TV and online gaming result in a drastic increase in packet traffic volume per subscriber, with different performance requirements in terms of bitrate, packet delay, packet loss tolerance, etc. If there is a drop in the average experience index for a segment or high-value individual in the hotspot, an SOC can determine if the drop is specific to the area, cell, or RF carrier, or the user, application or device. The analysis of the data and identification of the cause happens in real time, which speeds up problem resolution.

Another use case is customer care shifting from reactive to proactive. For example, by analyzing individual subscriber traffic, events and errors can be reported in near real time and trended. Monitoring individual subscriber IP sessions and understanding the experience of each subscriber will improve the efficiency of the complaint-handling process. This reduces the operational workload, improves customer perception and increases ticket-closure rate. Network information and device management options can also be shared with the contact center for not only remote diagnostics, but also identifying and clarifying any bill shock scenarios with detailed usage information.

Finally, another way iCEM can be used is for segmentation and marketing for churn reduction. Marketing must quickly and dynamically define offers, promotions and pricing with intelligence and context around the customer segment. This is based on psychographics, demographics, customer lifetime value, products and services. A wealth of subscriber information can be used to understand their needs, interests and behaviors. This not only ensures the delivery of personalized offers, but also guarantees that the service experience doesn't negatively affect the brand.

Marketing also cares about reducing customer churn. By analyzing mobile usage and performance data such as speed test, competitive sites, dropped data sessions, slow connections and other key factors, operators can identify problems or customers that are considered high risk for churn, then offer the subscriber an upgrade, better plan and so on. Pricing and advertising teams can understand how users are adopting their new services, forecast potential growth of additional services and create more personalized pricing strategies for differentiated content offerings in the market.

Competition

Although the market is competitive, no one vendor holds the key to successfully managing the entire CEM space. They all provide integration with competitors' assets. And while they all provide a degree of analytic insight, differences lie in the depth of domain expertise, analytic capabilities and prebuilt use cases. Accanto Systems has four main areas of competition:

○ **Network-oriented vendors**: Alcatel-lucent, Nokia, Ericsson and Huawei all offer very deep connection to their own networks. All of these players are adding more CEM analytics to their offerings. Most have made significant R&D investments in big-data infrastructure by tying their hardware assets to advanced analytics for network optimization, right-timing customer interactions and improved cross-selling.

○ **OSS/BSS/service-assurance providers**: Amdocs, NetCracker, TEOCO, Redknee, IBM, HP and Tektronix all focus on some form of CEM. However, they are less experienced at network data extraction. They have expertise in customer management analytics or service assurance as it relates to managing the subscriber experience. A few have deeper expertise in supplying a unified service delivery management platform that provides real-time network, application and service-performance intelligence. That allows IT and network organizations to assure optimized performance and QoE.

○ **Best-of-breed analytic firms**: Movik (formerly Zettics) and Guavus offer strong big-data analytics with use cases across marketing, customer care and the network. While Zettics relies on operators' big-data infrastructure, Guavus provides its own Reflex Platform that is capable of creating actionable information from widely distributed, high-volume data streams in near real time.

○ **Device-based diagnostics**: Carrier IQ provides diagnostic data to companies. Mobidia is an on-device mobile intelligence option used to improve the quality of devices and the network by delivering insight on how handsets and devices are performing on that network. AetherPal and Innopath both offer proactive and remote diagnostics for mobile devices.

SWOT Analysis

Strengths

Accanto Systems can provide insight from both the user plane and control plane for a complete end-to-end viewpoint. Accanto's iCEM measures when the user uses the applications. It also can measure performance and optimize experience for different application categories.

Opportunities

On-device experience measurement and improved self-service options represent a growing opportunity for wireless operators. Being located in the end-use device as an app that either runs in the background or visibly enables the accurate measurement and reporting of real-time customer experience.

Weaknesses

Gaining visibility for its offerings against much larger providers will be difficult. While there are a few use cases demonstrating results, it is essential to demonstrate continued deployment as well as results.

Threats

The crowded marketplace creates confusion for articulating differentiated solutions. Customer service profiles are also still siloed in managing the overall experience, which creates difficulties in achieving success.