

Customer Experience Assurance (CEA) — the New Paradigm

Today, after many years of investing in customer experience management (CEM) initiatives, communications service providers (CSPs) still lack the means and systematic approach to drive substantial improvements in customer experience with service performance. The complexity, cost, and footprint of current assurance and monitoring solutions continue to grow exponentially alongside the amount of traffic, and will inevitably result in solutions that can't scale, technically or financially, to address the mobile broadband explosion. This compromises CEM solutions that rely on underlying assurance/data collection systems—largely because of inherent data integrity issues. There is also a wide misperception in the industry that CEM and CEA are one and the same. They are not.

This article discusses the real problem faced by CSPs and brings clarity to the topic while making a strong case for the industry to embrace a new paradigm for CEA.

What is CEA?

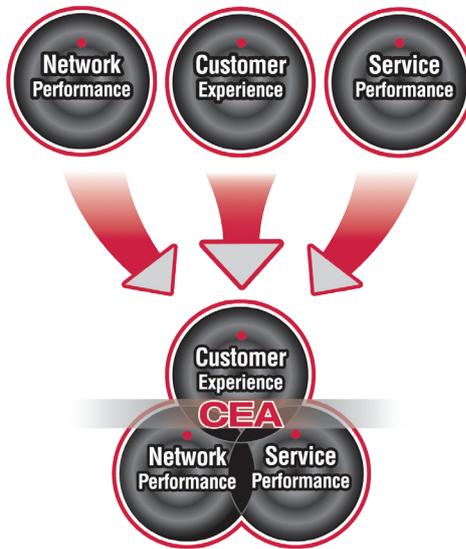
We define CEA as a combination of the process, set of actions, and effort used to ensure that users of communications services receive a consistently good and increasingly better experience according to their unique expectations, whether they are consumers or enterprises. Achieving that level of assurance will create loyal customers who will then act as promoters within their network of influence in terms of their provider and subscribed services. These promoters are willing to advocate for their provider and are unlikely to churn to the competition or worse, become detractors.

Communications service providers: it's time for change! The LTE era warrants a new assurance paradigm that drives substantial increases in customer satisfaction and addresses the pains caused by the mobile broadband explosion.

To solve this problem, one has to address the true assurance problem in a different manner so the data-scalability problem doesn't surface. When this is done, service providers will be in a position to address the challenge and opportunity associated with CEA in a relevant, pragmatic, cost-efficient, and scalable way. The CEM challenge can be more effectively addressed as the CEA and CEM levers can be moved independently and the CEM solution can be tailored to solve the actual, broad CEM challenge for which it has been built.

The Solution: A New CEA Paradigm

In today's environment, seeing the network and services with the eyes of the customer can only be achieved if network and service assurance applications are initially designed with the customer in mind. The applications must also address the constraints of CSPs with respect to cost, footprint, and scalability. CEA cannot be an afterthought for existing network and service assurance solutions or applications, and instead must integrate previously separate network and service assurance activities. The reality is that network, service, and CEA are one and the same.



Additionally, the evolution of today's communications network technologies is driving a demand for next-generation CEA solutions that deliver a significant improvement to the concept of real time, measured on the order of seconds and not minutes. This is a requirement as the network, the services, and performance overall are becoming dynamic in nature and they now vary and fluctuate at a much faster pace when compared to legacy network and service technologies.

Furthermore, next-generation CEA solutions must scale to address the magnitude of the mobile broadband wave so that the solution cost, complexity, and footprint are decoupled from the mobile broadband traffic growth curve both in terms of the speed of growth and absolute figures. This must be delivered while preserving the effectiveness of the solution itself in terms of the very reason why it is employed: to drive continuous improvement in customer satisfaction.

Last, but not least, next-generation solutions for data collection and CEA must be designed in a way that they can be virtualized both in terms of their collection and mediation platform as well as their hardware probes. The same solutions must have the ability to collect data in an environment where the network has been virtualized, which implies the ability to support multiple data collection techniques including virtual probes and traffic analysis agents that can be dynamically provisioned. Overall, the above enables CSPs to fully execute, leverage, and capitalize on their cloud and virtualization strategies.

To address the issues outlined, as well as meet the requirements previously defined, a fundamentally different approach to assurance is needed. The assurance status quo is no longer relevant, and a better assurance model is possible. And, the time for an innovative solution is now.

The effectiveness of an assurance solution should not be measured by the degree of causality in the data it produces or the number of detailed call or session records generated. Instead, it should be measured by the degree to which the generated customer experience data, along with the issues that are made visible, can be correlated to an actual underlying network, service, or other problem in a statistically relevant way. When this is true, one can reasonably conclude that customers are indeed being negatively impacted and it is, therefore, worth spending time and money to solve underlying problems.

The mobile broadband explosion has pushed the industry into a new dimension where "to be exact" and "to ensure causality" are both non-realistic goals and are not required. In addition, big data makes everything so much larger. It gives us so much data to deal with that a statistical approach delivers all that is needed for service providers to effectively and efficiently address both the challenges and opportunities inherent in CEA.

What About the Big Data Opportunity?

A direct benefit of the new paradigm in CEA is a data collection solution capable of enabling the service provider to capture the true big data opportunity in a statistically-relevant, cost-efficient, scalable, and real-time manner.

LTE, SDN, and SON technologies promise to make assets more usable, efficient, and scalable, and to put service providers in a position to innovate faster and at a much lower cost.

Doing so will let them capture the short-lived monetization opportunities that characterize future mobile communications services and networks while delivering the most superior customer experience.

In this environment, real-time context awareness becomes key for the purpose of effective asset optimization and monetization of big data. In this new, real-time, big-data world, it becomes more difficult to predict what customers will do and where, when, and how they'll do it. Intelligence becomes history within seconds and history is practically irrelevant. The ability to see and understand the present situation becomes paramount in order to detect key events as they happen, and to uncover correlations between events that are only visible during a finite time span or that are of much less value if detected later.

To deliver the above, one has to let go of some established practices and be open to embracing a new paradigm. As L. Gordon Crovitz said in a recent Wall Street Journal article in reference to big data, "society will need to shed some of its obsessions for causality in exchange for simple correlation: not knowing why but only what." In other words, it's less about explaining the science behind the observed data, it's about quickly identifying patterns and events that are statistically and significantly relevant. This is what the new paradigm lets service providers do, and do so effectively and efficiently.

Conclusion

CEA is, indeed, the new paradigm and should not be seen as just a phenomenon. Adjustments to adopt these new ways of operating, to understand and embrace foreseeable challenges, and to change the way we think about the true customer experience are inevitable. However, the sooner adoption is achieved, the sooner the visibility of the true customer experience will surface.

Customer expectations are increasing as the mobile broadband explosion continues to escalate. Seeing into the real experience is now more important than ever—and it is the key for CSPs to maintain a position of relevancy.



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