

EMA™ Advisory Note: An Adopter's Guide to User Experience Management – How to Pick the Right QoE Solution for You



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This EMA Advisory Note is an excerpt from a recently published EMA report entitled *'An Adopter's Guide to User Experience Management: How to Pick the Right QoE Solution for You!'* (Adopter's Guide). The Adopter's Guide is specifically designed to help you select the right Quality of Experience (QoE) solution to improve the interactive experience of your application end users based primarily on your functional and business needs, your role, and the constituency (constituencies) you are looking to serve.

This excerpt focuses on one of the leading vendors in the report, Shunra and their Virtual Enterprise solution. A further comparison of the capabilities of Shunra Virtual Enterprise against other vendor solutions can be found both in the full Adopter's Guide report and online at the Enterprise Management Associates (EMA) IT Management Solutions Center on User Experience Management at <http://www.enterprisemanagement.com/research/asset.php?id=1008>.

Why QoE?

There are a lot of terms circulating across the market to describe how to set up metrics for evaluating application and network services as they impact the end-user experience. No doubt the most established is Quality of Service or QoS, which has generally taken on a fairly technical, bandwidth-centric definition where it remains still valuable as a metric, but as such is far from summing up what really counts in the eyes of the end user. There are other terms like RUM or "real user monitoring" that are technical, but at least focus on a series of monitoring technologies truly targeted at the "real user" or "end user" his or herself.

But probably the most business-relevant and demanding is QoE, or "Quality of Experience," which is not centered in technology, but in the flesh-and-blood experience of the user consuming IT services. This focus, a lot like Mean Opinion Score (MOS), was originally intended as it applied to telecommunications services. Like it or not, how IT customers "feel" about their services is in the end going to be how they're going to vote with their pocketbook or their budget approvals. And since they reside in the hearts and minds of IT service consumers, the dimensions of understanding QoE can be as complex and differentiated as one might expect once you combine human "sensibilities" with a wide range of IT services. For some users, mobility might be more important than super quick response time. Security may be a value and often is when critical records or financial transactions are at play. But the heart of the problem is most often focused around application or service response times, which now leads availability 65% to 63% based on EMA research.

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Quality of Experience is the *ultimate collaboration* because it not only requires effective dialog between a range of IT professionals and the line of business community, but because it must also actively pursue venues to understand end-user (consumer) priorities and satisfaction levels. It is through this type of “collaboration” that both IT and business executives can begin to set more meaningful priorities for service objectives, and through this dialog, as well, that IT can come to understand actual, rather than merely surmised, user preferences for service functionality and service performance. For this reason, nothing could be more important for aligning IT with business goals than effective QoE initiatives.

EMA research indicates an accelerating growth curve for QoE initiatives – one that’s not likely to abate even in tough economic times. QoE after all is both a “highly scalable” means to enhanced productivity and in many cases revenue generation and brand loyalty. It’s arguably one of the most efficient investments that IT and business planners can make.

A Few Highlights

Some of the highlights of the research are:

- 79% of the respondents viewed QoE as becoming more important to their organizations. Only 2% see it as becoming less important.
- 71% view QoE as both a business and technology concern – while 19% view it as primarily a business concern and only 11% view it as primarily a technology concern.
- 47% already claim to have integrated teams between business constituencies and IT.
- And interestingly, 45% of the business respondents (those with clearly non-IT roles) were involved in dialog with IT sufficiently to be “aware of instrumentation and unique technical environments.”
- The lead driver across all verticals was employee productivity at 23%. Business competitiveness and/or revenue generation was close though, at 20%, and brand protection and customer satisfaction garnered 14% of total votes.
- Most QoE solutions not only capture issues with the user experience, but begin to help to solve the problem of where to focus diagnostic efforts. EMA, along with many others in the industry, calls this “triage.” And supporting triage is, as expected, very important to our respondents – 77% of whom felt that triage was either “very” or “extremely” important.

And just how important is QoE again? When asked what they’d do differently – the top choice, at 43% was – “We wished we started our QoE initiative sooner.” The second choice was to focus on “better coordination between the business and IT.” Focal interviews echoed some complementary insights into how and why QoE initiatives succeed or fail:

- “My recommendation is to get on the user’s level. You need to assume the end user’s mindset. Ask them [IT users] how they could be more productive.”
- “You need to have a good QoE plan with a business case. Clearly define your goals and objectives. Understand how you are going to use the information. Take it one step at a time. Then, you need to define how you are going to meet your goal – like reducing costs.”

- “My advice to others getting into QoE efforts is to have an on-going dialog with your business partners. Perception is really important. Don’t ignore the “soft stuff” - meetings with your end users are completely critical.”

In Summary

QoE is on the rise and for good reason. It is the ultimate barometer of whether or not an IT service is “successful” from a customer/consumer perspective. As such, it is both multi-faceted and potentially open-ended, as new application environments require new types of metrics to assess not just response time and availability, but effective navigation and interaction with the application and application-supported processes at hand.

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QoE has progressed to a level where senior business executives and managers have in many cases already become aware of and interested in technology trade-offs as they impact the business. This interest and dialog bodes well for future QoE adoption. But the newness of QoE suggests that business constituencies have not yet had sufficient time to evolve at the more administrative and functional level. Nonetheless, the most dramatic finding of the December research is the clear indication that QoE is on the rise, and should continue to be on the rise as businesses and organizations seek more effective operational and business alignment between IT technologists and the business planners whom they ultimately serve.

Further detail on products appropriate to different constituencies can be found in the EMA Solution Center on QoE at http://www.enterprisemanagement.com/IT_Mgmt_Solutions/, or simply by going to the EMA Website, www.enterprisemanagement.com, and looking for the “Solutions Centers” in the top menu.

Case Studies

QoE – Moving from Reactive to Proactive

This company builds and runs clinical trials for new medical devices used in medical procedures. The end-users are mainly internal users at hospitals and clinics around the country. These users enter data and run reports for the company’s major clinical trials. The primary application supported is called InForm by Phase Forward, a commercial program that builds and runs clinical trials.

A High Visibility Challenge

QoE became a focus for the company in 2006 when issues of uptime, availability and performance became evident in an externally-hosted application used to enter and analyze data from clinical trials. As one project manager stated, “the noise level from customer dissatisfaction finally reached the business VPs in the user community. Suddenly, IT was involved in trying to solve our QoE issues.”

“IT was getting blasted by users that the application was slow or unavailable. We couldn’t figure out why because our hosting company didn’t provide us with the needed alerts and reports to diagnose the problem.” The initial QoE efforts were borne out of a need for a tool to help respond to end user complaints and a desire by IT to be more proactive.

No single event pushed the company to undertake a QoE initiative, but rather multiple small events during peak times – such as enrolling patients into a trial or scrubbing data to submit to the FDA. “During peak periods we could have hundreds of hospitals and thousands of users entering data during a two-week period, this was a very “high visibility” window for IT and millions of dollars were at stake.”

Before starting a QoE initiative, the approach used by IT was highly reactive. No metrics were measured, and only rudimentary understanding of QoE – for example, measuring the call closure rates to the Help Desk – was used. “We only found out about problems when users complained. We got our hands slapped a lot.” Customer calls would go into a general mailbox only after the vendor support failed to address the issue – sometime two or three days later. “People were aggravated, emotions were high, and the trail of the problem was oftentimes cold. Without root cause analysis, the same problems would occur over and over again. We didn’t know if it was a process, hardware, software or network problem. All we could do was pressure our hosting vendor.”

QoE Initiatives

In late 2006, a management team representing both the end users and IT met with the hosting vendor. Multiple initiatives to improve QoE were established for completion in two years. Budgeted in 2007, QoE became “one of IT’s highest priorities.” Initial tool selection was done via a combination of discussion with industry peers, web research and developing a requirements matrix from the business. From the initial investigation, two tools were brought in for four months of evaluation – Gomez and Keynote.

“We spent a lot of time doing our proof-of-concept. We used the POC to do exactly what we needed to do in production. So, when it came time to install the tool for real, we had the processes down. Moving Gomez into production was when the pressure was on – so it was great that we did our homework up front.”

Application-Lifecycle-Centric QoE Solutions

Many of the QoE solutions in this market assessment include application developers, and to a lesser degree, Q/A Test, in their targeted audiences. However, most of these capabilities are focused on capturing production-level application performance that can be useful feedback in developing new applications. In contrast, all leaders and innovators mentioned here have distinct support for pre-deployment capabilities, and often defined reporting targeting application development and Q/A Test. These capabilities may come through synthetic/scripted testing, advanced analytics, and/or simulation-emulation capabilities. Getting QoE right “out-of-the-box” before deployment can be invaluable in optimizing customer loyalty and performance, as well as in minimizing embarrassment when critical SLAs or other business objectives are not met.

Shunra, Virtual Enterprise Suite – LEADER

Shunra supports Web, Web 2.0, client server, and SOA applications, as well as network services such as VoIP and videoconferencing from a lifecycle perspective, with a clear focus on how application services delivered over the network will impact end-user experience. Shunra’s portfolio supports multiple IT constituencies, and in particular provides a cohesive fabric of information for application developers, Q/A Test, service manag-

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ers, application managers, and network managers. From a lifecycle perspective, Shunra supports development, test and production environments. Shunra solutions can be used by enterprises and service providers, as well as by mid-tier businesses anxious to provision services that work before customer dissatisfaction reaches embarrassing proportions.

Shunra supports a variety of metrics, including response and availability, application utilization, user errors, and end-user efficiencies through WAN emulation, which can capture latency, jitter, bandwidth and other infrastructure attributes. In this way, application developers, Q/A Test and network planners can work together to ensure that ap-

plication QoE will not be impacted by infrastructure performance after the applications have been transitioned onto the network, or once infrastructure changes such as data center consolidation have been initiated. PCs can be attached directly to the emulated environment so that relevant developers and planners can experience application issues directly. Shunra's VE Desktop Professional is an all-software solution directly targeted at application developers and quality assurance professionals seeking actual network context prior to deployment. Shunra now offers VE Desktop for HP Software, this product is imbedded into HP Performance Center and LoadRunner 9.5 for performance engineers searching to combine load issue with network performance.

Shunra's capabilities target application-to-network interdependencies and network issues in context with application performance and end-user experience at the remote desktop. These are designed to complement more in-depth application and application component design and monitoring tools. Shunra's portfolio exhibits a nice balance of synthetic (active testing) and observed or passive monitoring, and supports a wide variety of virtualized systems and desktops and network infrastructure environments, such as MPLS, VPNs and wireless. EMA especially likes Shunra's combination of flexible deployment with rapid time to value, combined with truly strategic benefits in ensuring that QoE across real networks is proactively anticipated by application development. EMA also likes Shunra's well-defined support for distinct roles (development, Q/A, network design and service operations). EMA has seen IT executives leverage Shunra's portfolio to promote better collaboration across domains in what might be viewed as a pragmatic and well-focused example of IT transformation.

About EMA

Enterprise Management Associates (EMA) is a leading industry analyst and consulting firm dedicated to the IT management market. We provide IT vendors and enterprise IT professionals with objective insight into the real-world business value of technologies ranging from Virtualization to Security and Risk Management to ITSM and CMDB. Learn more about our research services, our free online IT Management Solutions Center, and our IT consulting offerings at: www.enterprisemanagement.com

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