It's All About the User Experience

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Introduction

If an organization's most strategic assets are its data, applications are its life blood, and its people drive the business, then application performance and user experience are critical to its success. As applications increasingly drive the business, APM is strategic to employee engagement and customer satisfaction.

From the consumerization of IT through the rise of the app economy, users are spending more time on their smart devices for both personal and employer-related activities. Meanwhile, cloud computing, mobility and social networking are moving from trends to near-ubiquity.

In this environment, end-users have become increasingly impatient when it comes to application and website performance. With more information sources and choices available to them than ever before, it is no longer enough for an app to work; it must now perform to user expectations.

As a result, companies have only seconds to build – or lose – customer loyalty, based on the quality of apps the business deploys and how those apps perform. This makes customer satisfaction and operational efficiency the primary business cases for APM.

When applications run well, companies are better positioned to achieve ROI and risk management objectives. Companies increase their ability to drive more revenue from existing customers and win new ones, strengthening competitiveness.

Conversely, poor application performance undermines employee productivity and engagement, causing customer dissatisfaction. Loyalty erodes, revenue opportunities are missed and the company risks reputational damage.

Today, application downtime is not only a performance problem; it is a customer service problem. CIOs can more closely align with user objectives and corporate strategy by recognizing their role in employee engagement and customer satisfaction.

The increased reliance on applications to run all facets of the business has made it more important than ever for enterprises to monitor and manage the end user experience across all environments: physical, virtual, cloud, mobile and mainframe. As these new computing trends increase complexity, only a unified APM platform that integrates all data across the entire application delivery chain can provide the operational intelligence to ensure a consistently outstanding end user experience.

It's All About the User Experience

Users have little to no tolerance for poor application or website performance. Most expect excellent service regardless of the device they are using or where they are located. These expectations for website performance were validated in a 2014 survey of 1,115 consumers conducted by Limelight Networks. Not surprisingly, the survey revealed that performance is the key to a great web experience.

When it comes to performance, user expectations are all about end-to-end response time. At a response time of even one to three seconds, the risk for dissatisfaction increases. If webpages took 3-5 seconds or longer to load, 80% of users said they would abandon a site. After 10 seconds, most consumers are gone.

Figure 1. Testing Consumer Patience

How long are you willing to wait for a website to load before you get frustrated and leave the site?

- **1-3 Seconds** 18.92%
- **< 1 Second** 1.67%
- **3-5 Seconds** 38.62%
- **> 5 Seconds** 40.79%
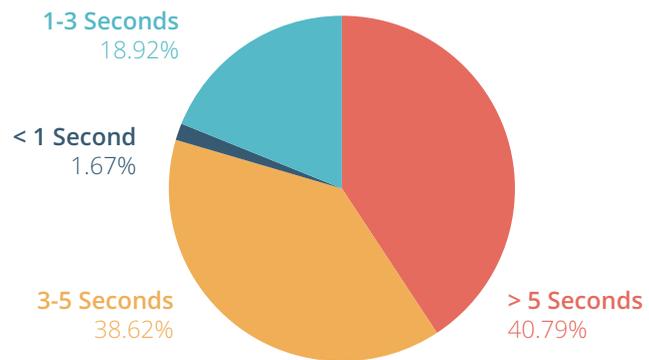
Source: State of the User Experience, Limelight Networks

Half (50%) of the respondents said they use a smartphone or tablet to access websites, with 85% saying they use a mobile device at least some of the time. And while 44% said they were more patient for a website to load on their devices, 40% expect websites to be equally as fast on their mobile device as on their desktop.

Perhaps the most telling result was that 37% said they would leave and buy from a competitor if a website was slow. Counterintuitively, users would rather spend more time browsing for information on another site than waiting a few additional seconds for the right pages to load on the first.

Increasing network speeds and data sources have given users nearly unlimited access to information. As a result, customers now have more choice than ever before. And social media has amplified their voice. According to a recent Forrester survey, 73% of millennial consumers listen to their friends and family for product and service recommendations; 62% rely on social ratings, opinions and reviews to decide which product or service to choose.

Users Expect Speedy Apps...and Problem Resolution

Google researchers have discovered that a page load time of 0.4 seconds – or the blink of an eye – is long enough to cause users to search less. For most users, 0.1 seconds is an instantaneous, acceptable response, similar to what a Google search returns. Having observed thousands of websites, the researchers also determined that users can differentiate website performance to within 250 milliseconds. A millisecond is one-thousandth of a second.

Figure 2. A Split Second to Make an Impression

Time is Relative

Category	Milliseconds
Half a second	500
Time of 90 mph pitch to batter	458
The blink of an eye	400
User to differentiate between websites	250
Typical Google search page load	85
High-frequency trade execution	45
One flap of a humingbird's wings	20
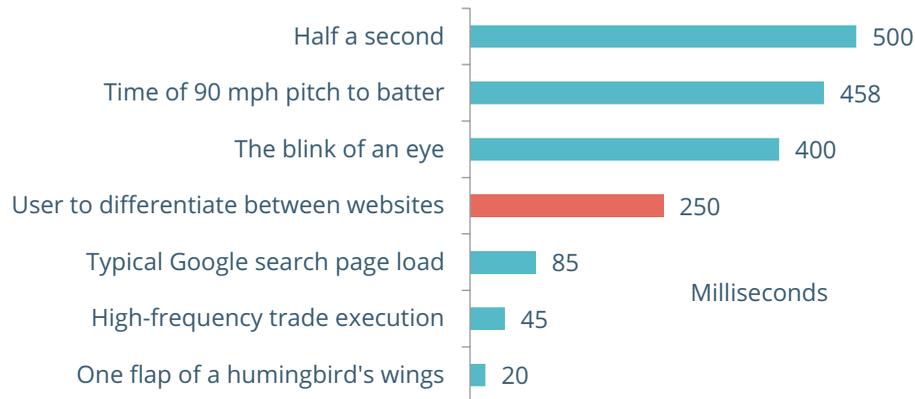
Sources: Google, The New York Times, Tech-Tonics

Slow pages are the number one issue that users complain about – ranking even higher than site crashes. When application performance or availability issues do arise, end users expect a quick response time to problem resolution from IT, usually within minutes in some cases. It's no longer good enough for an application to work; it now needs to work to end user expectations.

But there are no industry standards for response times. IT is challenged by determining what response times users deem acceptable for applications and websites. Naturally, this is subjective. And a user's expectations can not only vary by application and site, they can change rather quickly. For example, users will be more patient waiting for a game to load than for a search result.

IT can avoid the pressures of this guessing game by understanding their users and prioritize the performance of their apps and websites accordingly. They can make sure that the apps that drive the business have the highest availability and reliability. This is the path to consistently meeting or exceeding user expectations.

The Rise of the App Economy

New computing trends have given rise to the app economy, which represents the burgeoning economic activity being driven by mobile applications. In the app economy, companies have only seconds to build – or lose – customer loyalty, based on the quality of apps the business deploys and how those apps perform.

The app economy includes in-app advertising revenue, paid app downloads, the sale of goods and services, digital downloads and virtual goods that are all designed for mobile devices. Despite its relative infancy, the global app economy was still estimated to be nearly $60 billion in size in 2013. It is forecast to grow at a 26.2% compound annual growth rate (CAGR) through 2017, to approach $152 billion.

Figure 3. The App Economy

Global App Economy
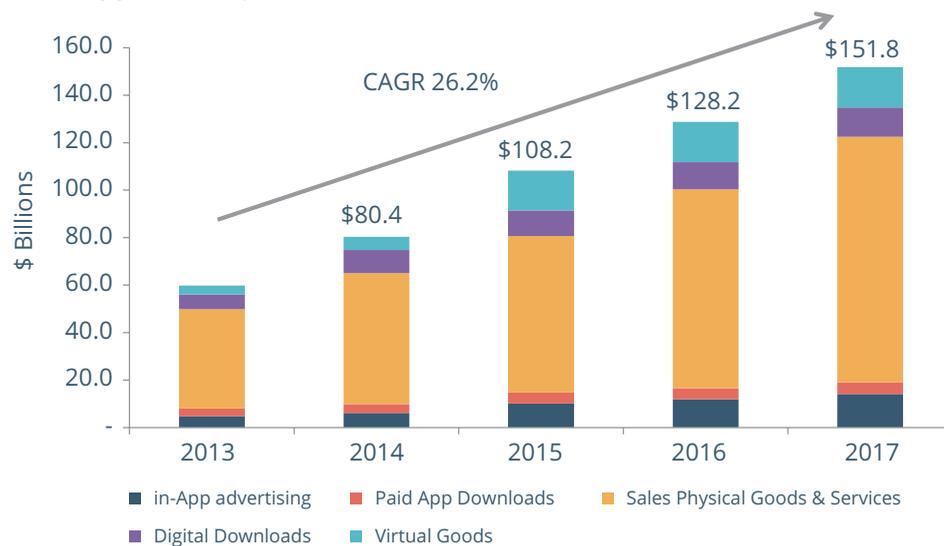
Sources: VisonMobile, APPNATION, Tech-Tonics

App-based commerce is expected to see the fastest growth rate from in-app advertising, app downloads and virtual goods. Additional revenues will be generated via email, social network and mobile-enabled browsers.

Easy-to-use mobile payment systems such as ApplePay are expected to see rapid uptake by banks and merchants alike in support of changing consumer purchasing habits. U.S. mobile payments slightly exceed $1 billion in 2013, a total that eMarketer projected – a full year before ApplePay was introduced – would reach $58 billion in 2017.

The Business Cases for
Application Performance Management (APM)

Every business strategy is built around gaining customer loyalty, increasing revenue per customer and winning new customers. Strong customer relationships hinge on interactions and experiences that meet or exceed customer expectations.

This makes customer satisfaction and operational efficiency the primary business cases for APM. When applications run well, companies are better positioned to achieve ROI and risk management objectives. More business processes can be streamlined or automated, reducing costs, lifting productivity and driving more revenue streams. Business processes can be optimized around how to improve employee engagement and customer experience.

Since modern applications have so many connection points between the end user and the data center, performance issues can arise anywhere along the application delivery chain. Failure at any point can turn a satisfied user into a frustrated one. If that user is an employee, productivity drops and so does their engagement. If the end user is a customer, the cost can be much higher in the form of eroded loyalty or lost business.

More companies are beginning to realize the correlation between internal user satisfaction and customer satisfaction. The more engaged employees are with customers, the stronger the customer's loyalty. In turn, the more equipped and empowered employees are to influence key business outcomes, the more aligned they are with corporate mission and strategy.

Not surprisingly, there is also a strong correlation between customer experience and loyalty. Widespread adoption of customer satisfaction and loyalty metrics now give organizations a baseline of how loyal customers are and how likely they are to be brand advocates that proactively recommend products and services. In fact, many companies are discarding legacy customer relationship management (CRM) techniques in favor of engaging customers through mobile and social channels.

A clear linkage has emerged with how improvements in customer experiences are driving financial benefits. But in order to realize the benefits of satisfied customers, application performance must been stellar – consistently. Service outages can be quite costly. Depending on the industry sector, slow responsiveness or complete outage (brownouts or downtime) of a company's most business critical application can cost between $100,000 and $1 million per hour.

Today, application downtime is not only a performance problem; it is a customer service problem. This creates both challenges and opportunities for CIOs and their IT teams. Cloud, mobile and social megatrends increase the level of complexity. While shared services and compute resources are managed centrally, they may be controlled by either the enterprise or by external providers. Yet the more business processes come to depend on multiple applications and the underlying infrastructure, the more susceptible they are to performance degradation. And users will hold IT responsible for application performance – regardless of whether the application resides on premise or in the cloud.

Figure 4. Business Benefits of Enhanced User Experience...

Better Enabled and Engaged Employees	Increased Customer Loyalty	Higher Website and Customer Services Rankings
Stronger Conversion Rates of Website Visitors	Greater Operating Efficiency and Productivity	Improved ROI and Risk Management Performance

Source: Tech-Tonics

Figure 5. ...and the Risks of Poor Performance

User Deissatisfaction/ Disengagement	Site Abandonment and Eroding Customer Loyalty	Market Share Loss and Competitive Disadvantage
Poor Site Rankings and Reputational Damage	Weak Financial Results Caused by Inefficiencies	Potential Fines Due To Non-Compliance

Source: Tech-Tonics

CIOs can more closely align with user objectives and corporate strategy by recognizing their role in employee engagement and customer satisfaction. The right tools can identify root cause of application issues and perform real-time triage to optimize user experience. A proactive approach improves their company's employee responsiveness to drive high customer satisfaction, increase revenues, and solidify long-term customer loyalty.

CA's APM Platform Becomes E.P.I.C.

CA's leadership in APM comes from a long history of innovation. The latest releases continue that tradition with new capabilities that enables customers to ensure a flawless user experience across the application delivery chain. Its unified platform with advanced performance analytics provides IT teams with operational intelligence about user experience at the point of engagement. The platform allows triage techniques to pinpoint the root cause of performance issues in real time to accelerate troubleshooting and mean time to repair/reliability (MTTR).

A fully-integrated dashboard provides end-to-end visibility – from mainframe to mobile apps with deep, code-level transaction tracing and automated instrumentation. The platform collects data at every stage of the application lifecycle, facilitating customer adoption of agile DevOps practices. CA's E.P.I.C. go-to-market strategy reflects how the company is redefining the category yet again. E.P.I.C. is an anagram for easy, proactive, intelligent and collaborative.

Easy – focus on making the platform easier to use for both IT and line of business users. This is a nod to the importance of improving employee engagement to strengthen customer service, as well as the needs of certain business people to monitor customer experience for business apps that they purchased or created themselves. CA also gives customers the flexibility to consume APM as a SaaS solution, which is how they are increasingly consuming more of their apps.

Proactive – this represents the evolution of APM toward helping enterprises proactively manage customer satisfaction. Given the need for round-the-clock availability and reliability, the platform provides a 360-degree view into complex, composite applications. Customers can diagnose the root cause of application performance issues and perform triage – before internal users complain or customers abandon a website.

Intelligent – automated data collection and deep-dive mainframe-to-mobile performance analytics capabilities allow both IT and business users to gain real-time insights into customer experience and satisfaction. It provides the smarts to allow IT teams to identify and react more quickly to application issues and gain a better understanding of application quality.

Collaborative – IT teams can no longer operate inefficiently in silos. Using different point solutions, each with their own consoles, creates interoperability conflicts and generates an excess of false positives that end up being ignored. Most importantly, user experience suffers, eroding customer loyalty. Sharing performance data throughout the application lifecycle assures higher-quality, better-performing apps.

Conclusion

There is no faster way to lose a customer than to frustrate them with poor application or website performance. The ability to deliver services 24/7/365 from any data center over any network to any device is becoming the ultimate competitive differentiator. In the burgeoning app economy, companies have only seconds to build – or lose – customer loyalty based on the quality of apps the business deploys and how those apps perform. With far greater access to information than ever before, customers have more choices and influence.

As applications increasingly drive the business, APM is strategic and key to end-user engagement and loyalty – both within the enterprise and with customers. This makes it more important than ever for enterprises to monitor and manage the end user experience across all environments: physical, virtual, cloud, mobile and mainframe.

The business cases for APM are customer satisfaction and operational efficiency. IT needs tools to proactively identify and resolve performance issues within a time frame that meets end user expectations. By ensuring that the apps that drive the business have the highest availability and reliability, IT can become more integral to customer service and loyalty. Making the connection between more engaged employees and flawless customer experience are the keys to making this happen.

Complexity rises, however, as more apps are beyond the direct control of IT. A more holistic approach that breaks down data silos across different IT teams and departments is the path to assuring service delivery, gaining deeper systems and customer insights, while improving collaboration and operational efficiency.

When applications run well, companies are better positioned to achieve ROI and risk management objectives. Conversely, poor application performance erodes employee engagement and customer loyalty, leading to competitive disadvantage and financial underperformance.

CA provides a scalable platform that enables customers to assure service delivery and exceptional user experience for their most business-critical applications. The latest releases modernize the platform with easy-to-use functionality that cuts across multiple user segments and expertise.

Pace is the catchword for CA APM. Under new leadership, it is acting more like a start-up, while leveraging its foundation as a market leader. The company is accelerating innovations with more features that can be released more frequently. As a result, CA is enabling customers to realize faster time to value on their APM investments.

About Tech-Tonics

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