



Application Performance Management Is Critical To Business Success

Introduction

We have entered the “age of the customer,” an era in which the best approach for a company to build a sustainable competitive advantage is to become customer-obsessed.¹ The catalyst for success will be how businesses utilize increasingly innovative technology-based business services to engage external customers and enhance internal workforce productivity. Unfortunately, rapid technology innovation brings rising dependence along with increasing complexity in regards to managing technology environments and business services.² This means a strategic approach to technology monitoring that ensures that performance and availability expectations are being met is not only essential to IT’s success but critical to commercial business success.

In February 2014, IBM commissioned Forrester Consulting to conduct a custom study of 138 US, French, German, and UK enterprises with at least 1,000 employees to evaluate their current technology monitoring approaches. All survey respondents clearly understood the definition of IT monitoring technologies and had partial or final decision-making authority for these solutions. The study captured insight into the benefits and challenges with today’s IT monitoring solutions as well as the types of monitoring features that will help them meet application and performance and availability expectations. Results from the custom survey were supplemented with Forrester’s market data related to this topic.

In The Age Of The Customer, Success Is Tech Fueled

Welcome to the age of the customer, “a 20-year business cycle in which the most successful enterprises will reinvent themselves to systematically understand and serve increasingly powerful customers.”³ The focal challenge and key to commercial success is to ensure that business-to-customer interactions meet customer experience requirements or simply that they meet needs, are easy, and enjoyable.⁴ This means that firms will need to take a systematic approach to the design and delivery of external business services to ensure that they are tuned to understand, connect, and serve customers at their moment of need. Equally, internal business services need to be optimized to support workforce productivity and promote

innovation in order to meet customer expectations swiftly while maintaining quality.

Data from Forrester Forrsights Budgets And Priorities Survey, Q4 2013, reveals that enterprises are rising to this challenge as they are focusing on acquiring and retaining customers by addressing their rising expectations and improving satisfaction. To achieve this, almost three-quarters of IT decision-makers identified improving quality of products or services as a high or critical priority for 2014 (see Figure 1).

FIGURE 1
Almost Three-Quarters Of Business Leaders Are Focusing On Improving Quality Of Products

“Which of the following initiatives are likely to be your organization’s top business priorities over the next 12 months?”
(Respondents who chose either “4 = High Priority” or “5 = Critical Priority”)



Base: 2,359 IT budget decision-makers who are either the senior-most business leader, executive in line of business/function, or director in line of business/function

Source: Forrsights Budgets And Priorities Survey, Q4 2013

The age of the customer also brings rapid developments in consumer technologies that, if utilized correctly, can enhance the delivery of external and internal business services. This means that companies will need to balance two agendas as part of their technology strategy.

Firstly, an agenda that focuses on business technology or systems of engagement methods that directly help to “win, serve, and retain customers” must be priority.⁵ Data from Forrester’s Forrsights Budgets And Priorities Survey, Q4 2013, highlights that to improve products and services, IT decision-makers are embracing the following systems of engagement technologies and approaches (see Figure 2):

› **Mobile applications.** Mobile is the most important digital touchpoint between the business and its customers.⁶ Equally, mobile applications can make it easier for employees to interact with their coworkers and with suppliers or business partners. Unsurprisingly, 44% of those surveyed planned to create smartphone or tablet applications to extend the use/value of products and services.

› **Software intelligence.** Mobile devices along with applications include and utilize sensors that allow businesses to understand their customers and workforce in increasingly greater detail.⁷ This allows for business services to be delivered in context of business users and exactly when they are required, such as in retail, where sensors are beginning to be used in store to detect customers’ mobile devices to enhance the retail experience with tailored offers and services. Therefore, a further 44% also planned to utilize software intelligence or connectivity (such Wi-Fi, Internet access) to deliver contextual experience whether it be by location, time of day, or past behavior.

› **Faster product launches.** Technology innovation is intensifying competition in all industries. Additionally, it’s making it easier for customers to switch to other service providers. Therefore, it’s no surprise that 42% of those surveyed planned to launch new products faster and more often.

Secondly, it’s important to also maintain an agenda that focuses on existing IT systems of records technologies, such as enterprise resource planning (ERP) systems, finance and control, and human capital management (HCM) systems.⁸ Since systems of engagement technologies are underpinned and rely on internal systems for data, a

comprehensive strategy to deliver superior services to customers relies on appropriate balancing of both agendas.

FIGURE 2
Improvement Comes With Adoption Of Systems Of Engagement Strategy

“You said that your firm was looking to improve its products or services. What is your firm doing to address this?”



Base: 1,764 IT budget decision-makers who are either the senior-most business leader, executive in line of business/function, or director in line of business/function

Source: Forrsights Budgets And Priorities Survey, Q4 2013

But Beware Business Service Delivery Is Becoming Increasingly Complex

The ambition to deliver customer value through technology-fueled innovative business services is clear. But, conversely, this is leading to increasing complexity for enterprise IT, in regards to managing performance, availability, and ultimately guaranteeing appropriate customer experience. This is because of:

› **Hybrid technology architectures.** Forrester’s Forrsights Software Survey, Q4 2013, shows that over half of the respondents said that they prefer to implement business processes clearly as either on-premises or in the cloud, meaning a hybrid approach to cloud adoption (see Figure 3). This increases the complexity of managing business service delivery as public cloud environments are not

owned and therefore not under the full control of enterprise IT teams.

› **Mobile and anywhere, anytime technology.**

Increasingly demanding and empowered users (both employees and customers) are asking for applications that can be accessed on any network, on any device, at any time, and from anywhere.⁹ This means that service delivery management solutions need to be capable of monitoring performance, availability, and experience of multiple application types (mobile, web) and consumer devices.

- › **Agile development approaches.** The drive for faster product releases is changing application development processes. Forrester's Forrsights Software Survey, Q4 2013, reveals that over half of IT decision-makers are expanding, have already implemented, or are planning to implement Agile or Lean software and maintenance development practices in 2014. The danger is that faster delivery cycles without appropriate application, infrastructure, and end user experience monitoring can result in service delivery issues being detected too late and by business users.

FIGURE 3
Half Of Respondents Prefer To Use A Hybrid Approach When Implementing Business Processes



Base: 960 IT decision-makers at enterprise organizations
Source: Forrsights Software Survey, Q4 2013

Current Monitoring Approaches Don't Solve Rising Complexity Challenges

In order to address the rising complexity of business service delivery, an appropriate technology management strategy is essential. A holistic monitoring approach that brings together end user experience, applications, and infrastructure into a systemwide perspective is critical to this strategy as it provides data about the health of business service components.¹⁰ Additionally, monitoring that can track application transactions as they flow across a business service is crucial for helping to simplify the management of complex business services. Unfortunately, data from the custom study revealed that 64% of the organizations surveyed have a fragmented, siloed approach to technology monitoring with solutions that have been accumulated over time, making it difficult to ensure business service availability, performance, and experience (see Figure 4). This suggests that the majority of firms focus monitoring on individual technology domains or components such as server, storage, and network, rather than holistically addressing the end-to-end system that is powering the business service. The impact of this fragmented approach leads to:

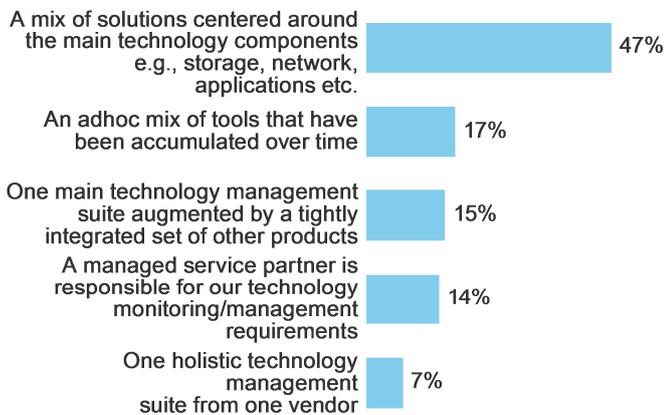
- › **Difficulties in meeting application expectations.** The custom study shows that the primary (55%) challenges and obstacles in meeting application performance and availability expectations is application complexity (for example, multitiered applications with complex interdependencies). Applications automate the processes of a business service, and this problem will be intensified with hybrid technology architectures and applications that integrate tightly with the end user's hardware device to deliver an experience in context.
- › **Reactive rather than proactive response.** The study also asked respondents about how IT is alerted to a performance/availability issue. It revealed that in nearly one-third of cases, IT support was made aware of application issues by business employees directly. A siloed approach to monitoring can detect technology component issues but does not show the business service impact in terms of lost revenue or reduced employee productivity and more importantly the effect on the end user who could be an employee or a customer.

The current monitoring approach has not brought the promise of rapid issue resolution either, with one-third of respondents also stating that mean time to resolve (MTTR) was more than 1 hour for the last known application performance issue.

➤ **Impact on workforce productivity.** When an application or performance issue arises to a critical application supporting a business service, respondents told us that the largest impact was on business productivity (see Figure 5). This has a direct impact on business performance and competitiveness. The clear danger is the potential knock-on affect to client satisfaction, with 40% of respondents ranking this as either first, second, or third in order of impact.

FIGURE 4
64% Of The Organizations Surveyed Have A Fragmented Approach To Technology Monitoring

“Which statement best describes your technology monitoring solution approach today?”

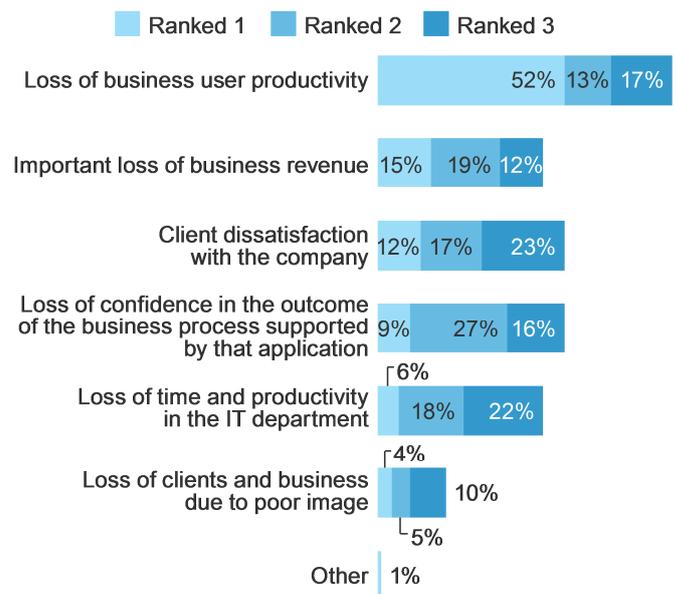


Base: 138 IT decision-makers at US, UK, German, French organizations with more than 1,000 employees

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, February 2014

FIGURE 5
Brownouts Result In A Direct Loss Of Business Productivity

“What are the primary impacts of brownouts (poor performance, such as response time, of an application) on your most critical applications?”



Base: 130 IT decision-makers at US, UK, German, French organizations with more than 1,000 employees

Note: Eight respondents selected “None of the above.”

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, February 2014

Application Performance Management Is A Necessity In The Age Of The Customer

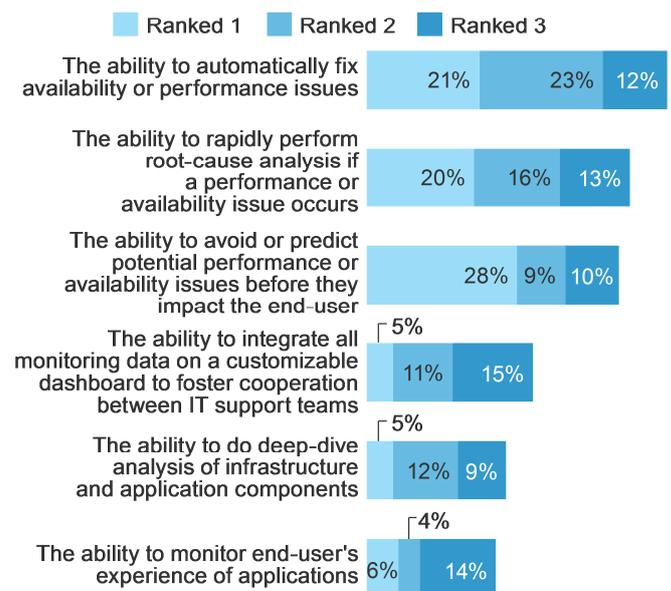
Rising difficulties in managing application performance expectations, reactive responses to technology issues, and the realization that these issues damage the competitiveness of the business means that it's vital that organizations take a look at their current APM strategy. This means focusing on APM solutions that can provide end-to-end visibility of applications, the underlying infrastructure and, most importantly, the end users experience in relation to the business service. This is the only way in which the root cause of a business service impacting issue can be identified rapidly. In relation to this, respondents in the custom survey were asked about which specific monitoring features would help them to guarantee application expectations (see Figure 6):

- › **Predictive analytics.** Twenty-eight percent of respondents in the study identified the ability to predict issues as being their number one feature that they would look for in a monitoring solution. With technology becoming increasingly intrinsic to business success, the primary aim for IT is to identify and stop technology issues before they impact a business service and ultimately the end user.
- › **Automated remediation.** The ability to automatically fix availability or performance issues was the second feature choice for 23% of respondents. If a business service issue does occur then the aim for IT has to be to ensure that the effect on internal workforce productivity or external customer engagement is kept to a minimum. The ability to automate workarounds or direct fixes is vital.
- › **Customizable dashboards.** The ability to integrate all monitoring data on a customizable dashboard to foster cooperation between IT support teams was the third feature choice for 15% of respondents. Customizable

dashboards ensure that monitoring information is displayed in context of the team viewing it. It becomes easier to spot potential issues and to derive insight. Importantly, with the shift to Agile development approaches, this feature will help foster collaboration between development and operations groups as pertinent information for both groups can be displayed easily.

FIGURE 6
Key Features For A Monitoring Solution:
Predictive Analytics, Automation, And
Customizable Dashboards

“Which monitoring/management solution features do you think would help to guarantee that application performance and availability expectations are met?”



Base: 138 IT decision-makers at US, UK, German, French organizations with more than 1,000 employees

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, February 2014

Conclusions

The reality is that technology fuels business success. Applications, consumer devices, and back-end infrastructure are the foundations of business services that have a direct effect on internal workforce productivity and external customer experience. This means that severe technology performance and availability issues impact business revenue and can severely harm the business brand. To prevent this from happening, APM solutions that provide end-to-end visibility of technology availability and performance in relation to business services are a business necessity.

Successful APM solution implementation requires firms to:

- **Audit currently utilized technology monitoring tools.** As this study revealed, many enterprise organizations have a mix of monitoring solutions centered on main technology components. Some may provide extra, needed information and these should be integrated with the APM solution to augment the information presented — i.e., predictive analytics. Equally, rationalize monitoring tools that provide duplicate information.
- **Involve relevant business teams, not just IT.** The information and insight provided by an APM solution is undoubtedly useful to IT teams, including development and operations professionals. But the information provided by a good APM solution is pertinent to other business teams, including marketing and eBusiness professionals. Information such as when, by what means customers access applications, and how long for is invaluable in tuning business services to meet customer experience expectations.

Methodology

This Technology Adoption Profile was commissioned by IBM. To create this profile, Forrester leveraged its Forrsights Budgets And Priorities Survey, Q4 2013, and Forrsights Software Survey, Q4 2013. Forrester Consulting supplemented this data with custom survey questions asked of 138 IT decision-makers at US, France, German, and UK organizations with more than 1,000 employees. This custom survey was conducted in February 2014. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.

Endnotes

¹ In the age of the customer, a focus on customers matters more than any other strategic imperative. Source: "Why Customer Experience, Why Now?" Forrester Research, Inc., February 26, 2013.

² Today, virtually every business process and service is technology-enabled or technology-dependent. The complexity resulting from these rising demands for more technical capacity, performance, and availability now overwhelms our ability to manually control and manage our technology environments and business services. Source: "Develop Your Service Delivery Monitoring Strategy," Forrester Research, Inc., September 6, 2012.

³ Forrester Research defines the age of the customer as "a 20-year business cycle in which the most successful enterprises will reinvent themselves to systematically understand and serve increasingly powerful customers." Source: "Technology Management In The Age Of The Customer," Forrester Research, Inc., October 10, 2013.

⁴ Whether business-to-consumer (B2C) or business-to-business (B2B) — or product- or service-focused — every company in every industry can leverage great customer experiences for business gain. In fact, a stock portfolio of Forrester's customer experience leaders had a cumulative 22.5% gain in performance over the past five years, compared with a -1.3% decrease for the S&P 500 Index and a -46.3% decrease for a portfolio of customer experience laggards. Source: "Why Customer Experience, Why Now?" Forrester Research, Inc., February 26, 2013.

⁵ Forrester defines business technology (BT) as "technology, systems, and processes to win, serve, and retain customers." Source: "Technology Management In The Age Of The Customer," Forrester Research, Inc., October 10, 2013.

⁶ Mobile has evolved into one of the most important, if not the most important, digital touchpoint for eBusiness professionals. Consumers are using their mobile phones in stores and on car dealer lots to compare prices and get product information, book airline tickets, and make the right product choices. Source: “Mobile Mandate For eBusiness Professionals,” Forrester Research, Inc., May 1, 2012.

⁷ Ownership and usage of mobile devices are growing at an unprecedented pace. It is this persistent connectivity that presents ongoing open opportunity to connect with customers in a highly relevant, contextual, and immediate way. Source: “The Future Of Mobile eBusiness Is Context,” Forrester Research, Inc., May 1, 2012.

⁸ Systems of record include core enterprise resource planning (ERP) systems, finance and control systems, human capital management systems, and focus on processes and transactions. Source: “Forsights: European Companies Start To Embrace New Systems Of Engagement,” Forrester Research, Inc., August 22, 2012.

⁹ Source: “2013 Mobile Workforce Adoption Trends,” Forrester Research, Inc., February 4, 2013.

¹⁰ Monitoring is an essential part of service delivery and performance management, because it essentially provides data about the health of service components. Monitoring also plays a central role in business service management; IT can no longer manage business services without a structure representing a set of basic methods and processes complemented by an adequate tool set. Optimization initiatives require a fundamental knowledge of service elements, their specific characteristics, and their cost structures. The importance of monitoring is therefore closely tied to business performance. Source: “Develop Your Service Delivery Monitoring Strategy,” Forrester Research, Inc., September 6, 2012.

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