Success in the Customer Experience Era Demands New Perspective and Alliances

Enterprises need greater visibility into application performance— and closer alignment with the business—to meet heightened customer expectations.

In the quest to enhance customer experience, enterprises are adopting new digital business models using software and technology to achieve greater agility and innovation. Yet these efforts also escalate application complexity, which if left unchecked, could seriously undermine an organization's digital transformation. But there's good news: Greater visibility into application performance management solutions, coupled with common language and metrics between IT and the business, can pave the road to success.

Today's enterprises must transform digitally for many reasons—to automate key business processes, enhance customer experience, or bolster worker productivity, among others. These initiatives, orchestrated against the backdrop of rapid change, require accelerated innovation, greater agility, and quick responsiveness to ensure competitive advantage and drive successful outcomes.

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Such a culture shift mandates a new foundational architecture that utilizes mobile, cloud, and big data/ analytics technologies. These key underpinnings can help drive success with one of digital transformation's most profound imperatives: Every company—whether a manufacturer, retailer, or services provider—needs to become a software company to varying degrees. Whether it's pushing out mobile apps, cultivating data-driven business insights, or conducting internet e-commerce, software has become the critical behind-the-scenes force for competing in the customer experience economy.

As part of the shift to a software-driven enterprise, digital organizations need to step up their cadence, iterating and releasing new applications and updates quicker to meet growing employee and customer experience expectations. This transformation requires wholesale changes—among the most important, shifting to a DevOps culture in-house DevOps culture along with nurturing agile software development and continuous delivery practices. In fact, high-performing IT organizations that have made this shift can now deploy software updates up to four times daily, according to the 2016 State of DevOps Report from Puppet Labs.

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Many companies are in tune with the software development changes necessary for successful digital transformation, according to a recent study of enterprise organizations from IDG Research. Over one-third of survey respondents have completed or are conducting ongoing efforts to adopt agile development practices to accelerate release cadence, and another 57% are just starting the process or plan to do so in the future. Similarly, more than one-quarter have completed or have ongoing efforts to adopt DevOps practices to ease the software development burden, while another 57% have begun or plan to do so shortly.

Velocity breeds complexity

Organizations with 5,000+ employees have, on average, 332 internal applications and 299 external applications in use, the survey finds. What's more, 40% are classified as mission critical.

The agility required for the digital enterprise, coupled with the velocity of change, is creating unprecedented levels of application and IT complexity. Seventy-one percent of respondents to the IDG survey characterize the current application environment as more complex, and 61% say it has become more difficult to manage application performance in light of this amplified complexity.

One major contributor to the multifaceted IT environment is the sheer volume of applications now considered essential for running day-to-day business operations. Organizations with 5,000+ employees have, on average, 332 internal applications and 299 external applications in use, the survey finds. What's more, 40% are classified as mission critical.

These organizations employ mixed approaches to building and deploying this growing application portfolio, with more than one-third using in-house resources. At the same time, there has been a marked shift away from monolithic applications to microservices based architecture. Both of these trends cast new wrinkles into traditional software development processes.

Other challenges are also fueling application development complexity. Integrating legacy systems with with new application architectures remains a critical barrier for many organizations, and is cited among the top three hurdles by nearly 40% of IDG survey respondents. Similarly, complexity of IT infrastructure is among the top three hurdles for 38% of respondents, and more specifically, the No. 1 barrier for companies in the financial sector.

The lion's share of work related to managing increasingly complex application environment still rests on the shoulders of IT: More than 60% of all applications are managed by internal IT departments. Moreover, the heightened emphasis on customer experience has fueled the introduction of a plethora of customer touch points—among them new devices, voice interaction tools like Apple's Siri or Amazon's Alexa, as well as the emerging Internet of Things (IoT). Each of these new vectors brings its own unique set of application development requirements, introducing new challenges into an already complex IT environment.

CREATING A TECHNOLOGY FOUNDATION FOR DIGITAL TRANSFORMATION

MOBILE

CLOUD
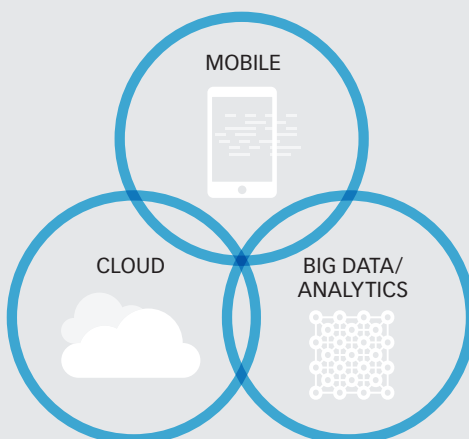
BIG DATA/ ANALYTICS

As enterprises push forward with digital transformation, mobile, cloud, and big data/analytics technologies are taking center stage. Ninety-six percent of respondents to a recent IDG Research survey are leveraging mobile or plan to do so over the next 12 months, while 92% are using or plan to use big data/ analytics technologies. Both private and public cloud have also garnered significant traction for powering digital experiences (during the last year or over the next 12 months), cited by 89% and 79% of respondents, respectively.

The blending of public, private, and multi-cloud infrastructure is set to become more prevalent in this new era, resulting in even higher levels of IT complexity. Gartner projects more than 50% of enterprises will adopt hybrid cloud by 2020. At the same time, spending on digital technologies will become even more crucial to enabling these new experiences. According to a Gartner research paper, "The 2017 CIO Agenda: Seize the Digital Ecosystem Opportunity," 44% of IT spending by top performers will be related to digital in 2018.
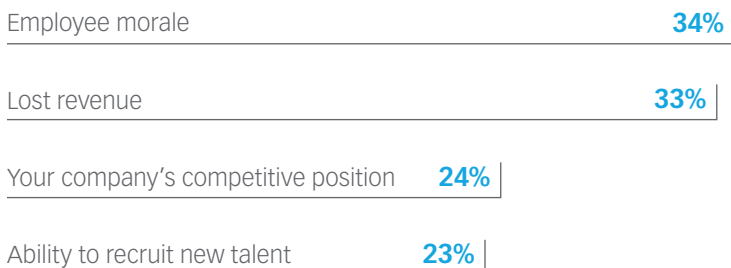
The cost of business disruption

The increasingly complex application environment is becoming more difficult to manage. This increases the odds of application performance problems that disrupt business operations. Over the last year, according to the survey, organizations have experienced, on average, four application disruptions per month that have impacted the business. Each of these disruptions commands significant IT time and energy, consuming approximately 10 hours to identify the root cause of the problem and another 20 hours to fully resolve it, the survey finds.

In most cases, IT operations is called upon to fix the problem—a practice cited by more than half of IDG survey respondents. It typically takes six full-time IT employees, on average, to find and resolve these disruptions. This creates a burden for IT departments already struggling with limited resources, and diverts attention from higher-value innovative initiatives such as enhancing customer experience.

In addition to creating extra work for IT, application outages and poor application performance have far-reaching business implications, from undermining the customer experience to exposing an enterprise to unnecessary risks. The most worrisome side effects of disruption among survey respondents include sinking employee morale (34%), lost revenue (33%), and a negative effect on a company's competitive position (24%).

Application downtime or performance degradation also hits the bottom line: Of survey respondents who could quantify the impact, every period of downtime costs about $300,000 per hour.

AREAS IMPACTED BY APPLICATION ISSUES

Employee morale	**34%**
Lost revenue	**33%**
Your company's competitive position	**24%**
Ability to recruit new talent	**23%**

SOURCE: IDG Research; 531 qualified respondents

Of the 50% of respondents who have the ability to quantify lost revenue, they estimate that an **AVERAGE OF $5,000 IS LOST FOR EACH MINUTE** of mission-critical application downtime.

Even more alarming is the toll application performance issues can have on a company's broader vision for digital transformation. Two-thirds (68%) of IDG survey respondents say such performance issues create barriers to successfully executing on digital transformation strategies and delivering on customer experience goals. And with companies' transformation efforts still in the formative stages, the application environment (and IT's involvement) is bound to intensify.

Achieving application performance: A better way

The era of customer experience demands that companies have greater visibility into their application performance to meet or exceed heightened customer expectations. It's also important for IT and the line of business (LOB) teams to establish a common language and set of metrics. These, in turn, will help deliver more insightful business awareness and foster alignment on common goals, particularly as they relate to customer experience.

Companies are just starting to take the requisite steps to exert greater control over their application environments. While 59% of the IDG survey respondents have begun to monitor critical applications and 38% are keeping tabs on the end-user experience, only 27% are leveraging analytics to ensure those applications deliver their intended business outcomes.

Application monitoring tools enhance collaboration, delivering a common troubleshooting platform and performance data that can support true agile development practices while nurturing a DevOps culture.

There is also plenty of work needed to drive greater IT/LOB alignment, specifically as it relates to connecting application performance to core business goals, such as driving revenue growth or improving customer loyalty. IDG survey respondents have begun fostering this alignment: Forty-one percent of survey respondents have already or are in the process of strengthening IT/LOB partnerships, while 37% are automating key business processes and 36% are leveraging third-party expertise to improve application performance and visibility.

At the same time, organizations are making other changes to stay abreast of application performance issues, minimize business disruption, and more importantly, steer a course to digital transformation. Respondents to the IDG survey are making investments in new application monitoring tools (38%), rolling out new software (35%), and hiring new IT staff (34%). Nearly one-quarter (22%) of respondents are also enlisting outside third-party expertise to help resolve ongoing downtime and application performance issues.

Monitoring application performance, in particular, can help organizations address these challenges. Tools that monitor and detect potential problems allow IT organizations to proactively identify and resolve issues to maintain an ideal user experience—before they cause disruption to the business.

In addition, application performance management solutions enhance collaboration, delivering a common troubleshooting platform and performance data that can support true agile development practices while nurturing a DevOps culture. The same platform can also create a feedback loop between IT and the LOB, providing a shared language and set of business metrics to gauge the impact of application performance on achieving core business goals. Advanced application performance management solutions furnish real-time visibility to both IT and the LOB around business health, so that issues both technical and nontechnical can be identified, detected, and resolved quickly—ensuring flawless customer experiences.

The bottom line

In this era where customer experience is king, organizations must strike a balance between accelerating innovation while managing the growing complexity and velocity of their application environments. The right agile practices and the right application performance management solution can align IT/LOB on efforts to drive innovation while managing the bottom line.

For more information on application performance monitoring tools, <u>click here</u>.

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