



Hidden Truth About Virtualizing Business-Critical Applications: Benefits Realized, with Results to Prove It

We virtualized our core [Oracle] business application as our next step to deliver IT as a Service. In the meantime, we benefited greatly from this exercise—we reduced costs and became more agile in our lines of business, all without any degradation in SLAs.

—Tony Valden, CIO,
American Tire Distributors

Progressive business and IT leaders are accelerating their path to cloud computing by virtualizing business-critical applications and overcoming common misconceptions. A new IDG study is bolstering confidence, replacing fears with facts.

The IDG survey findings reveal overwhelming support among business and IT leaders for taking business-critical applications to the next level and preparing for the new cloud era. The survey found that 96 percent of the respondents agreed that virtualizing business-critical applications is important as a foundation for enabling cloud computing. Moreover, the survey shows that enterprises that have virtualized their critical applications are getting excellent results, with 60 percent reporting improved quality of service and 60 percent reporting reduced total cost of ownership.

These findings are helping dispel misconceptions about virtualizing business-critical applications that still persist in the marketplace. Leading vendors report that some business and IT leaders are sticking to the “if it’s not broken, don’t fix it” mantra whereas others fear pitfalls that are either avoidable or nonexistent. By clinging to this mind-set,

enterprises put an artificial glass ceiling on the potential business benefits and miss the opportunity to leapfrog their competitors.

It’s easy to understand the hesitation. Just as the name suggests, business-critical applications are at the heart of your organization. Their performance, availability and reliability are so vital that organizations are especially vigilant, even apprehensive, about changing the way they are executed and managed. Yet, the IT status quo, with its siloed application environments and spiraling operations costs, is becoming unsustainable. According to the research firm Forrester, companies are now spending 70 percent of IT budgets on application maintenance and updates—a situation that is certain to change, given today’s tight fiscal constraints. That’s why forward-thinking organizations are looking past the misconceptions that, until recently, have kept them from moving closer to their cloud goals.

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Virtualization Trends Are Clear

IDG Research surveyed corporate decision-makers at enterprise companies around the world, exploring the experiences of companies that have virtualized business-critical applications and determining which benefits these companies have seen as a result of their virtualization initiatives.

Business-critical applications can be packaged applications from major vendors such as Microsoft, Oracle or SAP, but many companies also have developed custom core business applications unique to their industry or even to their individual company. In fact, custom application usage is as high as packaged application, according to the IDG research survey. 86 percent of the respondents reported using custom Java applications, compared to percentages ranging from 77 percent to 93 percent for packaged applications. These custom applications are strategic assets critical to productivity and create competitive advantage.

Generally, the larger the company, the more improvement it experienced over its previrtualization situation. Overall, companies with more than 5,000 employees saw at least a 10 percent improvement in benefits. Business managers noted a slightly higher level of improvement than IT management.

The top benefits for those companies that have already virtualized their business-critical applications include infrastructure cost reduction, increased efficiency, improved business continuity and less downtime.

These benefits can be grouped into quality of service, which improved almost 60 percent, and cost reduction, at close to 60 percent. These companies experience the highest improvements in security and compliance.

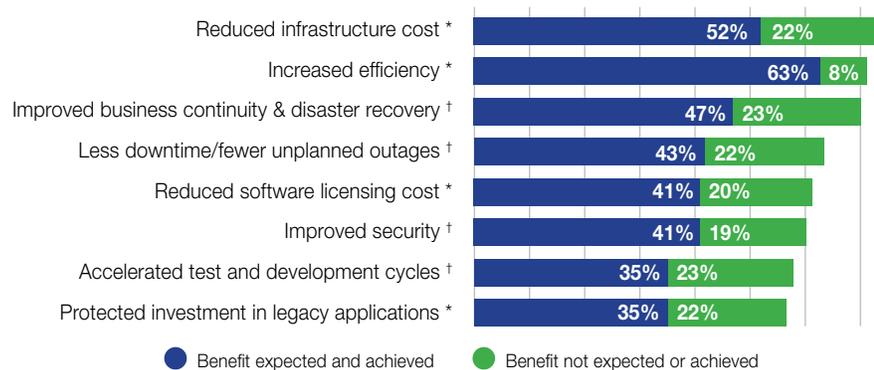
Virtualization Is Time-Tested

Results from VMware’s “Worldwide Customer Benchmarking” survey of 2011 show that once customers have virtualized applications from vendors such as Microsoft, Oracle or SAP (as well as custom Java applications) and realized the benefits, they tend to aggressively virtualize more. In fact, they eventually virtualize an average of more than 50 percent of their business-critical applications.

The reasons are clear. Virtualization, the key to enabling your cloud, is now a time-tested and reliable technology. It’s a proven way to make your IT, and thus your business, more agile. In fact, companies are unable to get the full benefits of cloud computing unless and until they virtualize all of their applications—especially their business-critical ones. Only then can they overcome the constraints of their existing infrastructure and IT silos by transforming their datacenter to deliver improved application service quality and reduced TCO.

Most companies take a phased approach to virtualization. Step one is usually virtualization of the IT production environment. The logical next step is to virtualize business-critical applications, and it is here that companies can achieve even greater business value from virtualization. Many companies are impeded in making further progress at this stage, however, by misconceptions regarding the likely impacts virtualization can have on critical business operations.

Fig. 1. Reduced Cost, Improved BCDR/Efficiency Are Top Benefits



* TCO benefit † Quality-of-service benefit

Getting to the Truth

There are five areas in which IT and business leaders often express concern when it comes to virtualizing business-critical applications: performance, business continuity/downtime, ISV support, cost and security. The IDG Research survey results show, however, that the reality is much different from the conventional wisdom that impedes virtualization progress at many companies.

Issue 1. Virtualization will slow performance. Not true. Overall, the respondents reported that virtualizing created a more agile IT. And for IT leaders such as Larry LaBas, Director of IT operations at SonicWALL, performance trumps all. **“For us, availability and disaster recovery features are important, but performance capabilities are the ultimate deciding factor, because we depend on our infrastructure in order to deliver solutions to our customers.”** said LaBas about his decision to virtualize SQL databases and applications such as Microsoft SharePoint and Active Directory.

Some 66 percent of the respondents confirmed that virtualization had a positive impact on the performance of their applications, with another 32 percent reporting no impact. (For custom applications, the figures were higher. Some 69 percent of the respondents saw a positive impact on the performance of their custom applications.) See figure 2 for the details by application.

Issue 2. Won't it reduce availability? Threaten business continuity? No. In fact, it's just the opposite.

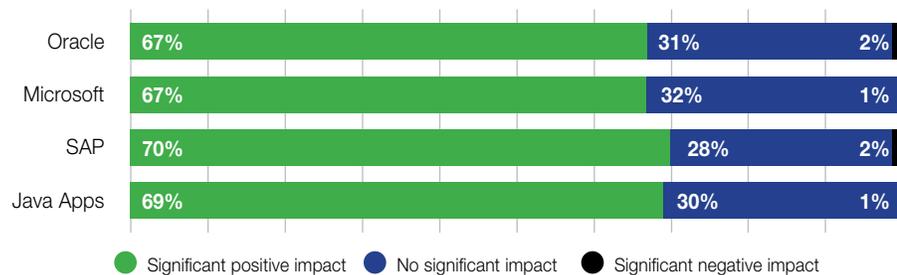
- ▶ **Seven out of 10 respondents reported an average of 60 percent improvement** in their business continuity and disaster recovery.
- ▶ **65 percent said they experienced less downtime**, with an average improvement of 58 percent.

Issue 3. My ISV won't support virtualized applications. The vast majority (98 percent) of the respondents reported a positive or no impact on the level of support they received from their ISV. See figure 3 for the details by application. And more than 90 percent said they'll accelerate virtualization if the support simply stays at the same level. So if the criterion for more virtualization is continued ISV support, and that is in fact the case, these findings make the argument for growth in virtualization of these applications.

Although the majority of large ISVs—Microsoft, SAP and Oracle—support VMware vSphere, the leading virtualization platform, even if the ISV has not issued an official support statement, the overwhelming majority of ISVs support their applications on virtual machines. This is true as long as the customer specifies the operating system and hardware it is using to run the applications.

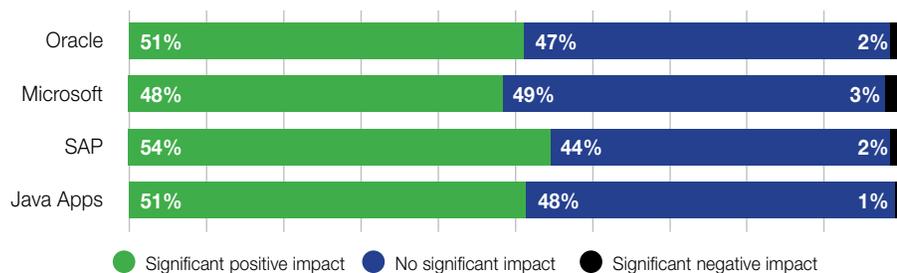
Issue 4. Won't it be expensive? No. Virtualization actually cuts costs. Among the respondents, 74 percent believe that virtualizing business-critical applications will reduce IT capital expenditures and 69 percent believe that it will reduce IT operational expenditures. Indeed, those who had virtualized their applications

Fig. 2. Virtualization of business-critical applications has had a significant positive impact on application performance.



Base: 260 Oracle; 292 Microsoft; 230 SAP; 258 Java Apps

Fig. 3. Virtualization of business-critical applications has had a significant positive impact on ISV support.



Base: 260 Oracle; 292 Microsoft; 230 SAP; 258 Java applications

We've made it easy for our customers to order servers and select from our IT services. VMware technology lets us operate as a cloud-based IT service provider. And it has helped us earn people's trust.

— Michael Thorson,
 Director of Infrastructure,
 University of British Columbia

University of British Columbia virtualized Oracle Database servers to achieve 100 percent virtualization.

reported a nearly 60 percent reduction in overall total cost of ownership.

Issue 5. It won't be secure. In fact, security and compliance are the top improved benefits offered by virtualization, which actually builds on the security in physical environments. Most respondents cited dramatic improvements in security after virtualization of their business-critical applications.

- ▶ **60 percent reported improved security**, an average improvement of 64 percent.
- ▶ **59 percent reported better compliance**, an average improvement of 63 percent.

What Are You Waiting For?

This research can help calm the apprehensions and refute the misconceptions that create roadblocks to virtualization in many business-critical environments. Rather than running into a new set of problems, the respondents in the survey have realized a 60 percent reduction in total cost of ownership and improved quality of service.

These companies have taken the crucial next step toward cloud computing while making their IT, and thus their business, more agile. In fact, 78 percent of the respondents agreed that when critical applications are virtualized, their IT becomes more agile; 75 percent agreed that their business becomes more agile.

The Pursuit of Business Agility

As the heart of the company, business-critical applications provide competitive advantage. The real risk for companies is

not business disruption but missing the opportunity to innovate with IT and drive toward business agility.

To thrive in today's economy, organizations increasingly rely on IT leaders not just to keep costs down but also to enable innovation, IT and business agility to drive profitable growth. With the widespread adoption of cloud computing, IT has at its disposal a robust, flexible solution that can save money and, more importantly, propel agility to competitive heights.

Director of Infrastructure Michael Thorson, of the University of British Columbia, can attest to the power of virtualizing business-critical applications, having recently virtualized Oracle Database servers to achieve 100 percent virtualization. "We've made it easy for our customers to order servers and select from our IT services," Thorson says. "VMware technology lets us operate as a cloud-based IT service provider. And it has helped us earn people's trust. They see the services we can offer and our rock-bottom prices, and they realize they can really benefit from the changes we've made to our university infrastructure."

Cost control, although important, isn't the end of the story for forward-looking organizations. And virtualizing infrastructure such as servers has been table stakes for a few years. As enterprises travel on the journey to IT as a service, the focus shifts from early savings on capital expenditures to a more ambitious program to transform IT into a service that enables business agility. IT leaders do recognize that virtualization of business-critical applications is an important step in the success of this transition.