

Usage of Virtualization Technology at Small and Midsize Businesses

Research conducted by: **COMPUTERWORLD**
The Voice of IT Management

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Usage of Virtualization Technology at Small and Midsize Businesses

Executive summary

This survey was conducted to better understand the usage of virtualization technology at small and midsize businesses (SMB). Several interesting conclusions emerge from the feedback provided by respondents. First is the popularity of virtualization at small and midsize businesses. More than eight out of 10 respondents (84%) report usage or consideration of virtualization technology. In fact, half of respondent organizations (49%) are currently using virtualization, 24% are considering virtualization for use in the next 12 months, and 11% are considering the technology for use more than 12 months from now. On average, SMBs are currently running five virtual machines (VM) in each physical machine. SMB budgets once dedicated to buying multiple machines can be used to buy performance-based hardware in which VMs can be stacked.

Top reasons for adopting virtualization at SMBs include the desire to increase the efficiency in managing the server environment (66%), controlling hardware sprawl and spending (58%), and reducing the number of servers needed to run the production systems to repurpose hardware for other needs (46%). These top three reasons why respondent organizations have explored or adopted virtualization are all related to optimizing technology assets. With optimizing technology assets being a top technology concern for SMBs today, organizations need to turn to solutions systems that specifically address this need.

Another issue exposed by this survey is the fact that nearly nine out of 10 respondent organizations are currently virtualizing applications. Web services (48%) and Active Directory (40%) are the most common types of applications being virtualized at small and midsize businesses, followed by e-commerce (28%), industry-specific applications (24%) and supply chain (13%). Application virtualization can help SMBs' IT infrastructure work harder and faster while reducing costs.

Lastly, more than six out of 10 respondent organizations (62%) have experienced downtime or performance lags in the past 90 days. Production downtime for maintenance and user performance lags were both reported by 43% of respondent organizations. Continued reliance on virtualization solutions will help companies with these issues to minimize downtime in order to ensure business continuity.

Overview

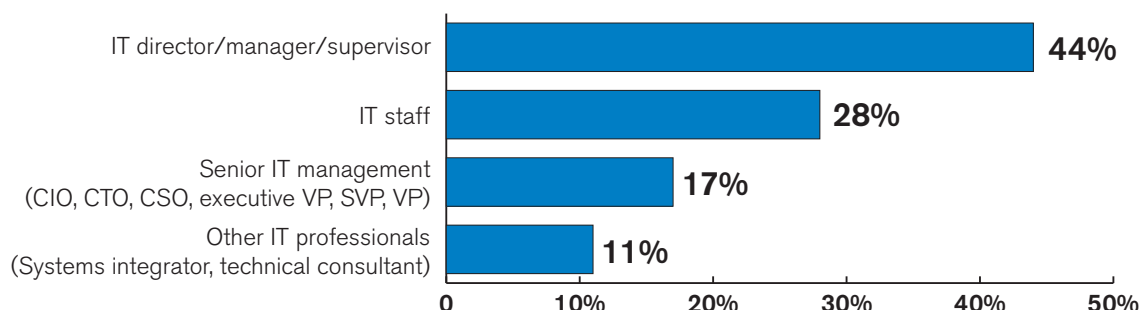
In May/June 2007, *Computerworld* invited IT professionals at small and midsize businesses to participate in a survey on virtualization. The survey was fielded via targeted broadcasts to *Computerworld* customers, as well as through an invitation on Computerworld.com. The goal of the survey was to better understand the usage of virtualization technology at small and midsize businesses. The survey was commissioned by VMware Inc. and Intel Corp., but data was gathered and tabulated independently by Computerworld Research. The following report represents top-line results of that survey and is meant to serve as a brief benchmarking tool for IT professionals at small and midsize businesses seeking information about how their peers are addressing virtualization within their IT organizations.

Demographic profile of respondents

Total IT respondents: 104

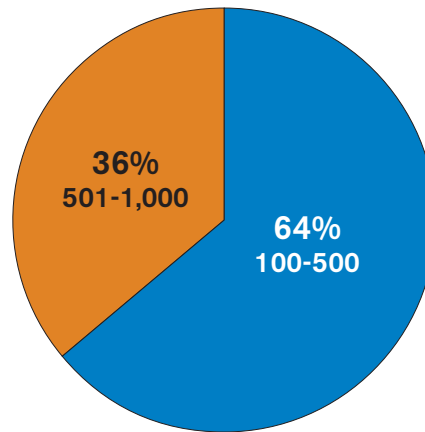
All 104 IT respondents, who were qualified through a series of screening questions, are employed at organizations with 100 to 1,000 employees and are familiar with virtualization technology. The demographic profile charts are based on the 87 IT respondents currently using or considering virtualization technology. Below is a breakdown of the percentages of IT respondents by job title, company size and industry.

Which of the following best describes your title within your company?



Overall base: 87 IT respondents using or considering virtualization technology

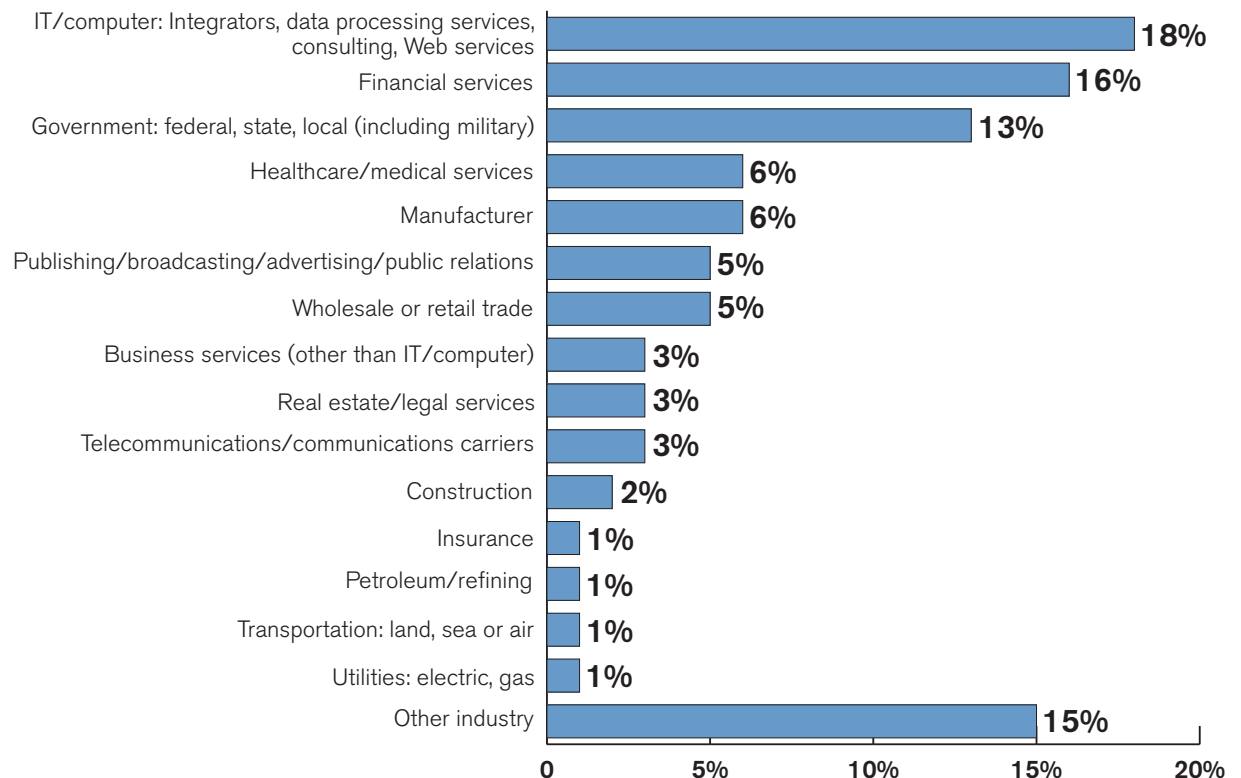
Approximately how many people are employed in your entire company or enterprise?



Mean: 461
Median: 411

Overall base: 87 IT respondents using or considering virtualization technology

Which of the following best describes your company's industry or function?

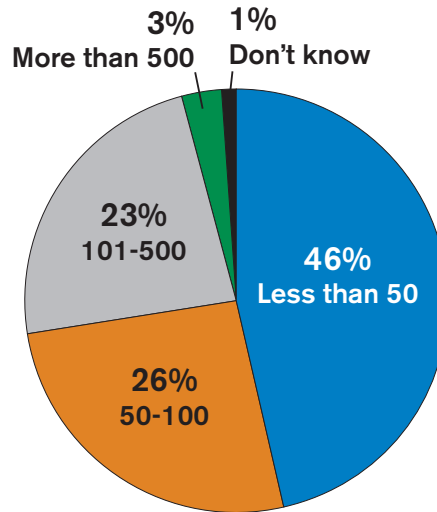


Overall base: 87 IT respondents using or considering virtualization technology
Note: Percentages do not add up to 100 because of rounding.

IT infrastructure at SMBs

These IT infrastructure charts are based on the 87 IT respondents currently using or considering virtualization technology. Below is a profile of the IT infrastructure at respondent organizations, including number of servers installed and planned for purchase, as well as the percentages of the IT budget allocated to various areas.

Approximately how many servers are installed at your company?

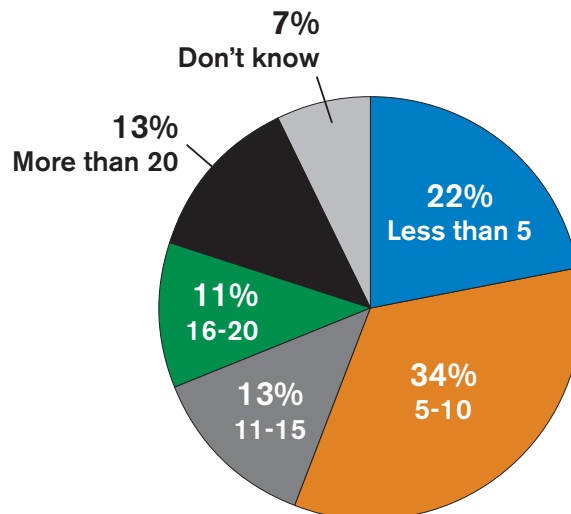


Mean: 119
Median: 57

Overall base: 87 IT respondents using or considering virtualization technology

Note: Percentages do not add up to 100 because of rounding.

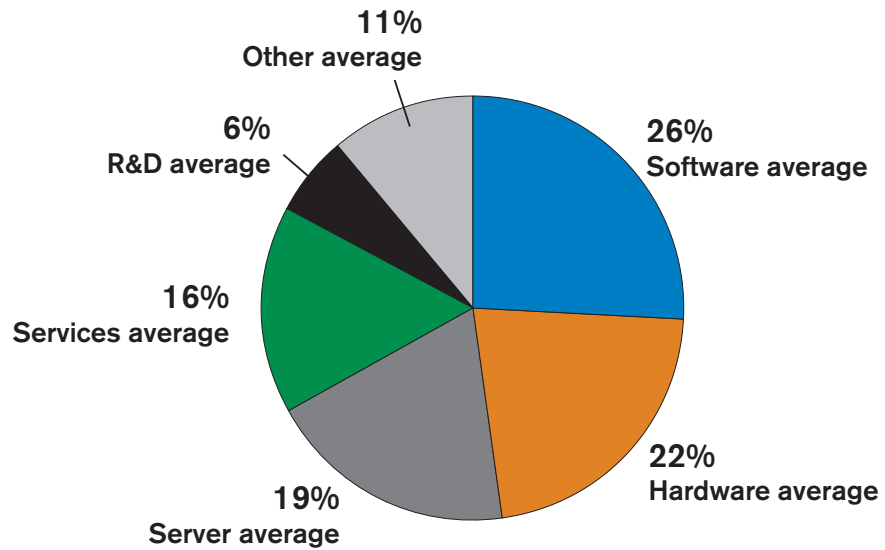
Approximately how many servers does your company plan to purchase in the next 12 months?



Mean: 10
Median: 9

Overall base: 87 IT respondents using or considering virtualization technology

With the total to equal 100%, approximately what percentage of your company's IT budget will be allocated to each of the following over the next 12 months?



Overall base: 87 IT respondents using or considering virtualization technology

Case Study

Thomas Weisel
Partners Group Inc.

Challenge:

Increase efficiency of data center while simplifying IT administration.

Solution:

Using the VMware Infrastructure 3 suite, the investment bank has been able to virtualize many of its servers, and thus better leverage its IT infrastructure.

Results:

Drastically reduced server provisioning time, reduced rack space by 20% and avoided replacement costs for old or fully amortized hardware. "The benefits of VMware Infrastructure 3 are fairly obvious: less overhead, less power costs, less IT administration time than an engineer could spend doing something else. ... The list goes on."

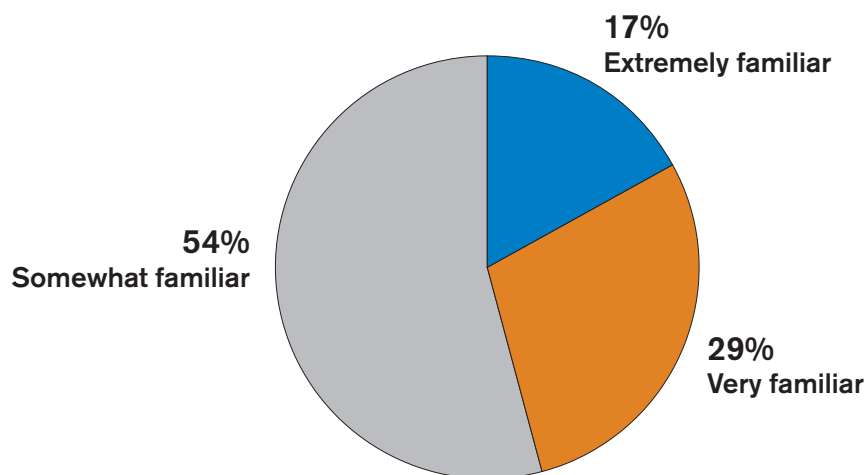
James Ford, Senior Server Engineer, Thomas Weisel Partners

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Familiarity with virtualization technology at SMBs

Overall, familiarity with virtualization technology at small and midsize businesses is high, with 46% of all respondents reporting that they are extremely or very familiar with virtualization technology. Additionally, 54% of respondents said that they are somewhat familiar with virtualization technology.

Please indicate your level of familiarity with virtualization technology, including virtualization of applications, desktops, file or NAS servers, storage or SAN, and the entire IT infrastructure.

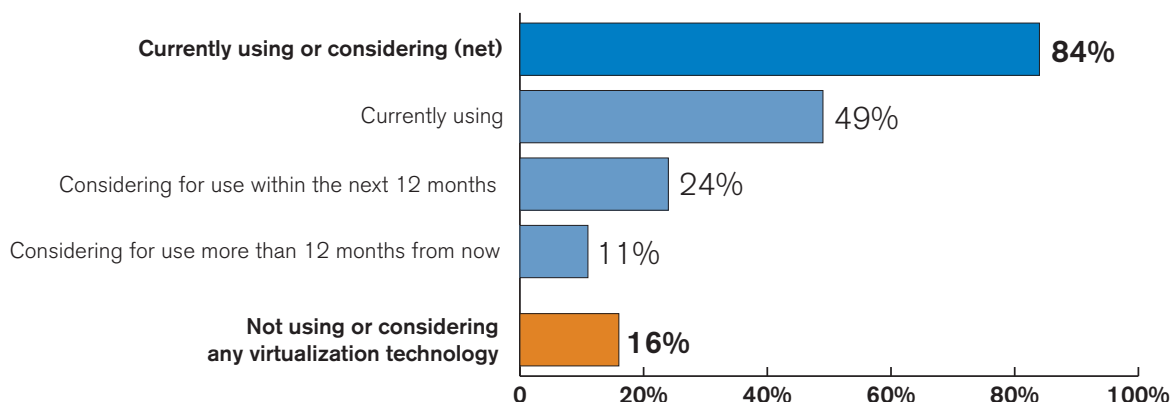


Overall base: 104 IT respondents

Usage and consideration of virtualization technology at SMBs

Usage of virtualization technology at small and midsize businesses is high, with 84% of respondents indicating usage or consideration of virtualization technology. More specifically, roughly half of respondent organizations (49%) are currently using virtualization, 24% are considering virtualization for use in the next 12 months, and 11% are considering the technology for use more than 12 months from now. On average, small and midsize businesses are currently running five virtual machines (VM) in each physical machine. By deploying VMs instead of physical servers, organizations do not have to purchase a new physical server every time they need to roll out new applications on dedicated servers.

Is your company currently using or considering any virtualization technology?



Case Study

nworks

Challenge:

Re-create multiple IT environments for software development and support.

Solution:

By implementing VMware Infrastructure 3, the independent software vendor has been able to readily create virtual software environments, rather than having to purchase additional servers and load them with different operating systems – a savings of both time and money.

Results:

Increased efficiency ten-fold, avoided tens of thousands of dollars in hardware costs, and enhanced profitability. "For a small company like us, VMware is a tremendous advantage. It allows us to support our customers all over the world without having a huge IT infrastructure – or a huge IT staff. As a result, we don't have to tie up our money in excessive capital equipment and labor costs."

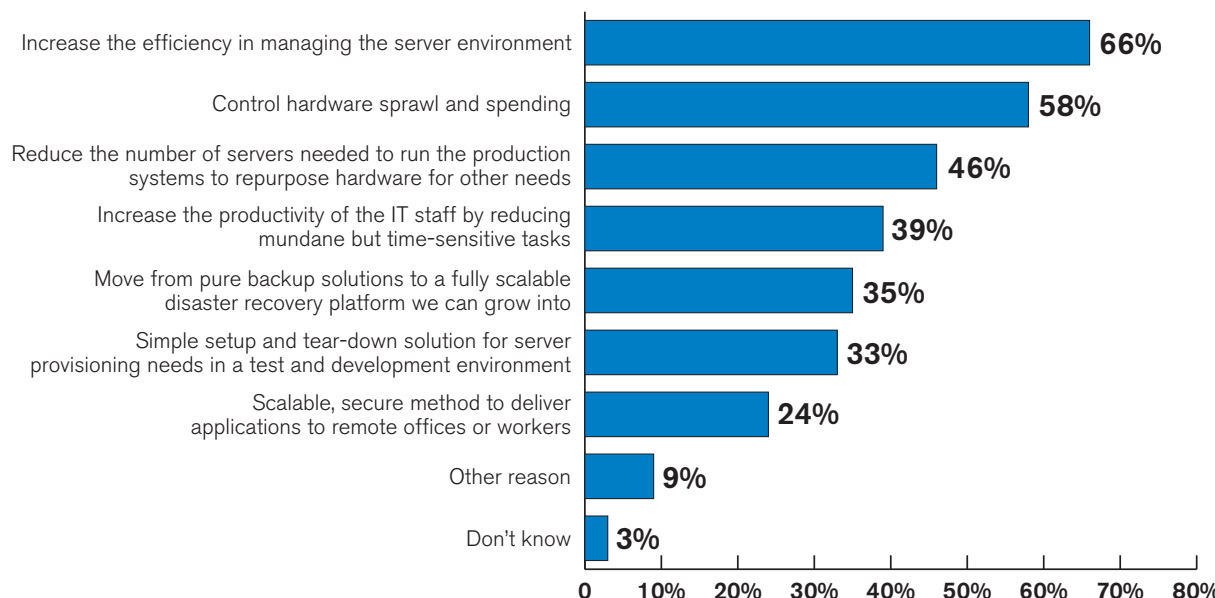
Hank Wright, Executive Vice President, nworks

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Top reasons for exploring or adopting virtualization at SMBs

Two-thirds of respondents (66%) report that one of the top reasons for adopting virtualization is to increase the efficiency in managing the server environment. Other top reasons include controlling hardware sprawl and spending (58%) and reducing the number of servers needed to run the production systems to repurpose hardware for other needs (46%). Additionally, more than one-third of respondents indicate that a top reason for exploring or adopting virtualization is to increase the productivity of the IT staff (39%) and to move to a fully scalable disaster recovery system (35%). With virtualization technology, SMBs can improve the efficiency of their IT infrastructure and can use or repurpose hardware to serve other business needs.

Which of the following best describes the top reasons your company explored or adopted virtualization?



Overall base: 87 IT respondents using or considering virtualization technology
Multiple responses allowed.

Case Study

CodeGear

Challenge:

Create a more cost-effective way to test new software builds in variable environments.

Solution:

Using ESX Server, part of the VMware Infrastructure 3 suite, Borland Software Corp.'s CodeGear is able to streamline software testing and development by consolidating disparate development, testing and staging environments with multiple operating systems on the same hardware.

Results:

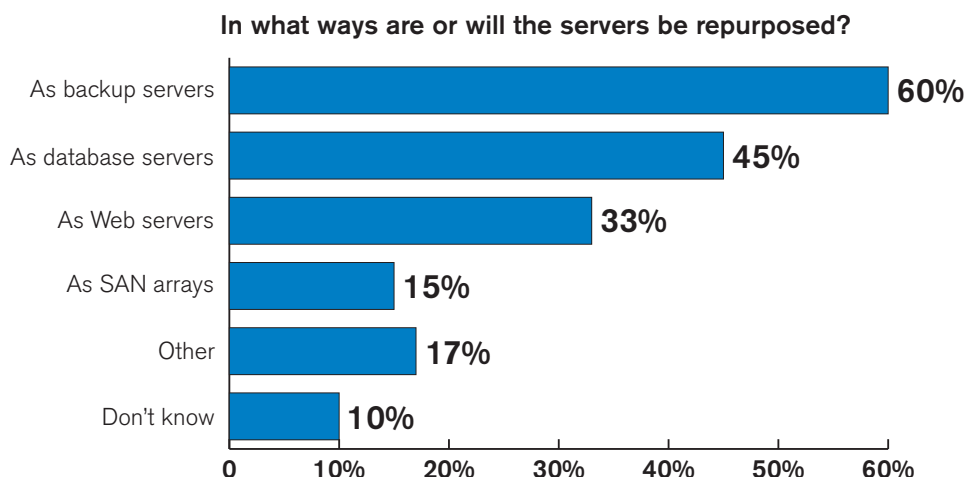
Eliminated hundreds of hours of manual software tests, avoided thousands of dollars in hardware costs, and significantly reduced time required for quality assurance. "Everyone in the organization wanted to start leveraging virtual machines within their departments once they saw what VMware technology could do for QA testing – how much time it saved, and how efficiently we could get things done."

Doug Chapman, Quality Assurance Staff Engineer, CodeGear

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Ways in which servers are or will be repurposed

As indicated on the previous page, nearly half of respondents (46%) indicate that they adopted virtualization to reduce the number of servers needed to run the production systems to repurpose hardware for other needs. Among these respondents, six out of 10 (60%) are repurposing or will repurpose the servers as backup servers. Other uses for the servers include usage as database servers (45%), Web servers (33%) or SAN storage arrays (15%). It is clear that SMBs are repurposing or plan to repurpose hardware to serve other business needs.

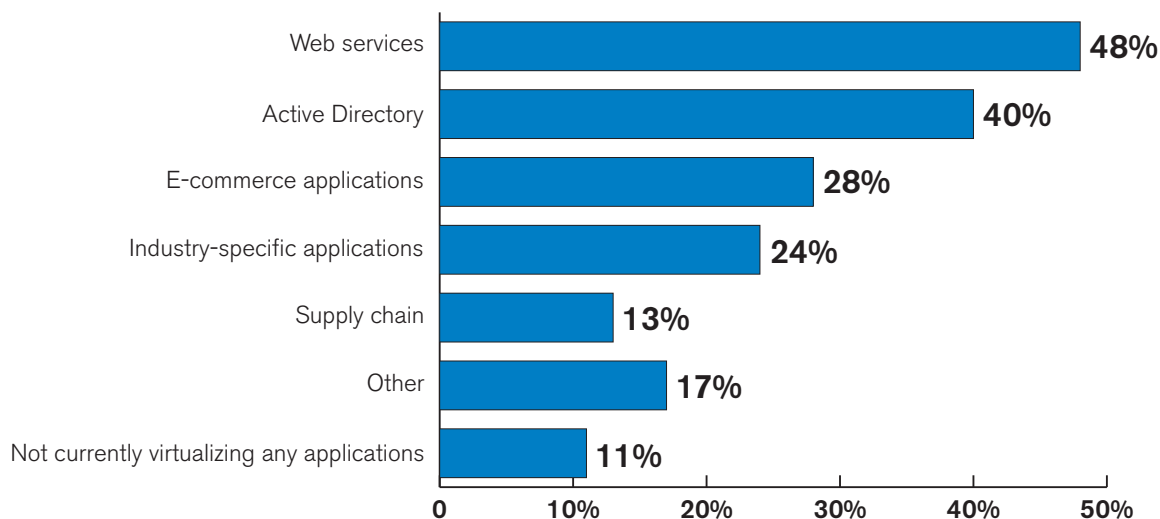


Overall base: 40 IT respondents indicating usage or virtualization technology to repurpose hardware for other needs
Multiple responses allowed.

Types of applications currently being virtualized at SMBs

Overall, nearly nine out of 10 respondent organizations are currently virtualizing applications. Web services (48%) and Active Directory (40%) are the most common types of applications being virtualized at small and midsize businesses, followed by e-commerce (28%), industry-specific applications (24%) and supply chain (13%). Examples of industry-specific applications being virtualized include custom banking/financial applications, ERP and document management applications.

Which, if any, of the following types of applications is your organization currently virtualizing?



Overall base: 87 IT respondents using or considering virtualization technology
Multiple responses allowed.

Case Study

AIC Ltd.

Challenge:

Shrink data center footprint and manage IT infrastructure more effectively.

Solution:

With the VMware Infrastructure 3 suite, the mutual fund company has been able to handily address its IT challenges and create a scalable, manageable IT infrastructure.

Results:

Saved \$400,000 annually, reduced administrative work by 70%, and doubled IT productivity without increasing headcount. "We were able to see savings right off the bat, by shrinking our data center footprint from 175 boxes down to four boxes. And more importantly, it makes us better suited to future growth: We can scale easily and create virtual machines as needed, in a matter of minutes."

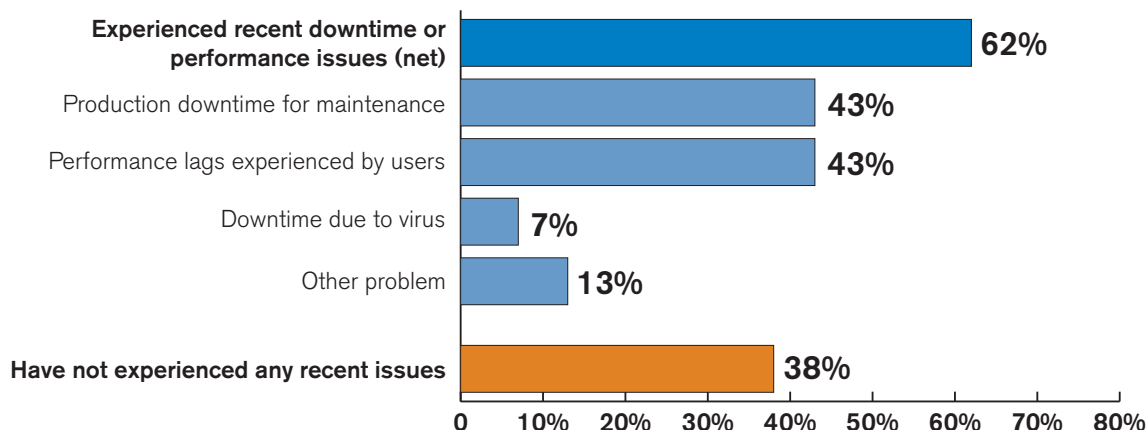
Sam Stravato, CTO,
AIC Ltd.

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Issues experienced at SMBs in the past 90 days

In the past 90 days, more than six out of 10 respondent organizations (62%) have experienced downtime or performance lags. In fact, production downtime for maintenance and user performance lags were both reported by 43% of respondent organizations. Continued reliance on virtualization solutions will help companies with these issues to be able to minimize downtime in order to ensure business continuity.

In the past 90 days, which, if any, of the following issues has your company experienced?



Overall base: 87 IT respondents using or considering virtualization technology
Multiple responses allowed.

Conclusion

The need for increased efficiency in managing the server environment, controlling hardware costs, and repurposing hardware for other needs cited by IT respondents makes it clear that IT organizations today need to continue their investment in virtualization technology in order to improve the performance and efficiency of the IT infrastructure.

So what does all this mean for your IT organization? Basically, your organization can use responses from this survey as a benchmark for how your peers are addressing these issues. If your IT organization is not currently using or considering virtualization technology, you need to begin to address this. It's important that the solution you seek enables your IT organization to lower IT costs through increased efficiencies, flexibility and responsiveness.