



How Your Business Can Attain Maximum ROI from Virtualization

A Guide for Business and IT Leadership

WHITE PAPER

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How Your Business Can Attain Maximum ROI from Virtualization

Small and midsize businesses are making virtualization one of the hottest trends in IT. The reasons? Virtualization reduces the cost and complexity of technology, frees up time to make their businesses more responsive and improves their ability to rebound from disasters.

Imagine if you could run your customer relationship management application on Windows and your accounting software on Linux — on the same server at the same time. You can! As large enterprises have already learned, a technique called virtualization enables servers to do that and more while saving energy costs, reducing space requirements and improving disaster preparedness.

Applications and operating systems run in pairs. Virtualization allows your company to run pairs of applications and operating systems on “virtual machines,” which are simply simulated compartments within one physical server. With virtualization, these compartments are protected from one another so if an application or operating system crashes, others running next to it are not affected. These virtual machines also are encapsulated into files that can be easily copied and migrated within your network or to an offsite backup facility, streamlining your ability to protect your business critical systems and data in case of failure and recovering them as needed to keep your business running.

Agility Through Virtualization

Like their larger counterparts, small and midsize businesses (SMBs) are embracing virtualization. According to market research firm Forrester Research, 34% of SMBs have started to deploy virtualization today. That percentage will jump to more than 50 percent in the next 12 months. Meanwhile, midsize businesses are virtualizing their whole server environments faster than large enterprises, according to Gartner; 70 percent of midsize businesses are targeting 100 percent virtualization within five years.

It's easy to see why virtualization has become a top IT priority for SMBs. By consolidating operations onto fewer servers, you can:

- Reduce hardware costs and the associated power, cooling and space costs. In belt-tightening times, virtualization can lower expenses and enable business operators to do more with less.
- Free up time by simplifying IT infrastructure management and enabling system administrators to test and provision new software and hardware upgrades without affecting productivity. In times of expansion, virtualization gives companies the ability to rapidly accommodate growth without being hindered by the cost and difficulty of implementing new technologies.
- Streamline business contingency planning and allow for easier disaster recovery testing and deployment, reducing downtime and assuring your data is secure in the event of a natural disaster or other calamity.

The resources that virtualization frees up can make your company more agile and competitive, and more responsive to changing economic conditions.

The ROI of Virtualization

Armed with an understanding of virtualization and its benefits, the next question is: “How can virtualization save money and enable my business to run more efficiently at the same time?”

Virtualization benefits SMBs in four key ways:

1. **Consolidate hardware.** If you’ve been subscribing to the model of limiting single applications to single servers, you can now eliminate server sprawl and bring together multiple applications onto a single server. According to the VMware cost savings calculator, this can reduce hardware and maintenance costs by 50 percent or more. Because you are running fewer servers, you can reduce your energy costs and the amount of space they require.
2. **Increase efficiency.** Because your IT staff doesn’t have to order and set up a new server every time you deploy new applications, those applications can be up and running sooner. With fewer technical issues to contend with, your IT employees can reduce the time spent on routine maintenance activities by two-thirds and focus on more strategic projects to keep your business competitive.
3. **Protect your business from downtime and disaster.** Traditional business continuity solutions are expensive and complex to deploy, making them out of reach for most SMBs. Virtualization lowers the bar to achieve faster and easier backup and recovery of key application workloads and data. Virtualization also enables you to more cost-effectively test failover to a secondary IT site so you can restore critical business operations in case of a physical site disaster. This is important because many businesses that close after a fire or other disaster never reopen. In fact, estimates range from 25 percent ([Institute for Business & Home Safety](#)) to 40 percent (US Department of Labor). According to the [Association of Records Managers and Administrators](#), 60 percent of businesses affected by a disaster close within two years.
4. **Secure company assets.** Rather than just securing hardware, companies are paying more attention to securing data, no matter where it resides on the network. Virtualization adds to an organization’s ability to increase security. For instance, because your IT staff can move applications from one virtual machine to another, they can more easily apply security patches to the original machine without having to inflict downtime on your employees (or to work overtime). Virtual machines take up less space on a server and leave a business less vulnerable to security attacks.

The key is to ensure that your virtualization software encompasses strong security policies. VMware’s new [vSphere application](#), for instance, incorporates capabilities that allow your IT team to transfer security settings along with applications when moving them to other servers.

SaaS vs. Virtualization

Another technology touted as a cost-saving measure for SMBs is software as a service, or SaaS. SaaS lets employees use the Internet to access applications running on hosted servers so they don’t have to deal with software upgrades or maintenance.

Virtualization enables users to have the best of both worlds by providing easier on-premise or SaaS deployment. Also, many SMBs choose a hybrid model, which includes on-premise deployment of their core IT infrastructure to maintain control of the heart of their business operations and SaaS deployment of specific applications or IT services, such as backup, server monitoring and disaster recovery.

Why SMBs Choose VMware

Perhaps the most important factor to consider in your virtualization purchase decision is the vendor you select. Increasingly, SMBs are choosing VMware as their virtualization vendor based on a variety of factors: reliability; ease of implementation and management; ability to deliver high-performance for applications; market leadership; and lower operating costs.

Let's look at these factors individually, based on Management Insight Technologies' 2009 blind market virtualization study of SMBs in North America, Europe and the Middle East.

These first three attributes were rated as the most important factors in selecting a virtualization vendor, and VMware has a significant lead over other competitors in all of these attributes.

1. **Reliability.** When you deploy an infrastructure platform like virtualization throughout your IT environment, you must rely on that technology to be a stable and dependable part of your business 24/7. 92 percent of SMBs believe VMware to be a reliable virtualization vendor compared with 59 percent for the next closest competitor.
2. **Ease of implementation and management.** Unless it is easy for your IT staff to deploy and manage a technology, it won't bring value. Management Insight found that 85 percent of SMBs rate VMware highly on this attribute, compared with only 64 percent for the next competitor.
3. **Performance.** 88 percent of SMBs cited VMware as delivering high performance solutions, compared with 55 percent of the next competitor. This is a crucial insight, because while virtualization improves capacity utilization on servers, it also has performance implications. VMware has developed technologies to maintain and enhance performance, as well as tools that help your IT team benchmark and troubleshoot your servers to ensure the best results.
4. **Market leadership.** VMware pioneered virtualization for x86-based systems in 1998 and continues to lead in virtualization innovation. For example, VMware provides the fundamental virtualization technology that Intel and AMD build into their processors. Even more important, among SMBs in the Management Insight study, 91 percent cited VMware for leadership in the server virtualization market, compared to only 30 percent for the next leading competitor.
5. **Lowest cost of ownership.** It is 5 percent to 29 percent less expensive to run applications (the true apples-to-apples virtualization cost comparison) on VMware vSphere than with Microsoft Hyper-V technology, according to the Taneja Group. vSphere is less expensive primarily because it can run more virtual machines per physical host than other virtualization vendors, lowering the cost of hardware and related infrastructure costs. To calculate your potential costs, use the VMware [Cost-per-Application calculator](#).

When compared to a similar study Management Insight conducted in 2007, VMware has actually increased in customer satisfaction and preference relative to the next leading brand.

Note: Brand attribute ratings are based on top-two box (i.e., 4 or 5) ratings for the following question: "Please rate X brand on a set of attributes using a scale of 1 to 5, where 1 means The statement does not apply to the brand at all, and 5 means The statement totally applies to the brand."

Conclusion: Virtualization Provides Strong Benefits for SMBs

As a leader of a small or midsize business, your expertise lies in improving your business, not the technology that runs it. With virtualization, it's enough to know that your business can decrease costs, increase IT productivity and protect corporate assets. And VMware is the clear leader in virtualization solutions for SMBs.

VMware Solutions Simplify IT Operations

From the desktop to the datacenter, VMware is the global leader in virtualization solutions. Customers rely on VMware to [reduce capital and operating expenses](#), [improve business continuity](#), [strengthen security](#) and [go green](#).

With 2008 revenues of \$1.9 billion, more than 150,000 customers and more than 22,000 partners, VMware is one of the fastest-growing public software companies.

VMware offers:

Server solutions

Don't let server sprawl and platform dependencies prevent your organization from achieving its goals. Take control of your IT infrastructure with [VMware vSphere](#). Cut capital and operating costs and increase IT service delivery without being locked into limited choices of operating systems, applications and hardware.

- Reduce hardware and operating costs by as much as 50 percent and energy costs by 80 percent.
- Reduce the time it takes to provision new servers by up to 70 percent.
- Decrease downtime and improve reliability with [business continuity](#) and built-in [data disaster recovery](#).
- Deliver IT services on-demand now and in the future, independent of hardware, OS, application or infrastructure providers.

Desktop solutions for individuals

VMware desktop virtualization technology lets you run multiple operating systems on a single computer. Easily run Windows applications on your Mac, including high-end digital imaging and other graphic-intensive applications, with [VMware Fusion](#). Run Windows and Linux applications on Windows or Linux PCs with the free [VMware Player](#). Reduce development time and shrink QA and support costs with [VMware Workstation](#). Consolidate multiple development and test workstations onto a single physical system running multiple virtual machines. Record and replay virtual machine activity to capture, diagnose and resolve performance issues.

Enterprise desktop solutions

Organizations trust VMware enterprise desktop technology to manage and support the needs of their extended workforce while strengthening security and control over corporate resources and sensitive information.

- Use [VMware View](#) to streamline desktop management and control, reduce operating costs and deliver complete desktop environments with greater application compatibility.
- Use [VMware ThinApp](#) to upgrade operating systems and stream applications without having to upgrade or replace legacy applications.
- Use [VMware ACE](#) Enterprise Edition to deploy and manage secure, virtual desktops to remote workers and business partners.

Evaluate or Purchase VMware Products

To evaluate VMware products, visit the [VMware Evaluation Center](#). To purchase any of our products, visit the [VMware Store](#), contact VMware directly at 1-877-4VMWARE (outside of North America, call 1-650-427-5000) or [send a message to sales](#). VMware also provides a global network of best-of-breed technology and distribution partners. Search online for an [authorized reseller](#).

