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# Reduce Costs and Improve Business Performance with Linux

Linux is a proven, reliable, secure operating system that can lower total cost of ownership and provide the flexibility and competitive edge that will take your business to the next level of success.

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## Nine Reasons Why Growing Businesses are Choosing Linux

The popular open source software Linux may not possess the largest operating system and desktop market share, but you can be assured it enjoys the industry's most avid user base. When you ask a Linux user why Linux is better than the rest, you'll get a ready explanation and a thorough list of facts, figures, and real-world stories describing before- and after-Linux scenarios.

Many business owners and IT managers of growing businesses prefer Linux over competitive operating systems. The major factors leading businesses to move to Linux are its low cost, security, reliability, openness, and freedom to avoid single-vendor environments.

In fact, businesses such as Amazon.com and Google rave about operational costs saved and efficiencies found from implementing Linux on their servers. These commercial examples, combined with the experiences of developers and IT managers, have led to widespread installations of Linux servers within small and medium-sized businesses. An IDC 2007 report says that Linux holds 12.7 percent of the overall server market.

With Linux in the business environment, owners and IT managers can concentrate on improving the business rather than spending time updating software and adding numerous, ongoing security patches.

Linux is a computer operating system, like Microsoft Windows® or the Apple Mac OS. Because of the robust Linux programmer community, several “flavors” of Linux (known as “distributions”) are available, and each is specialized in a slightly different way. This robust operating system is being widely adopted by IT professionals in growing businesses because of its high quality, reliability, and price. Here are nine reasons why many growing businesses are leaving a Microsoft environment and moving to Linux.

**Cost savings:** Linux saves money. Basic Linux operating systems are open-source and available for free. Even advanced Linux operating systems are much less expensive than the Windows server and its licensing fees.

When you combine business and financial packages with Linux you can earn an incredible cost savings due to the thousands of dollars saved on Windows licensing fees, fewer administration and maintenance expenses, and decreased downtime costs.

**Lower total cost of ownership:** Linux packs an incredible amount of power and performance at a much lower total cost of ownership than other operating systems. Major Linux distributions are less expensive than proprietary operating systems, and hardware costs, software costs, support, and administration trend lower with Linux.

Other accountable cost factors are administration and system downtime. The network and systems management capabilities in Linux are extremely robust, which means IT managers and business owners spend less time administering and managing Linux platforms. Most important, the overall robustness and stability of Linux operating systems means critical applications stay up and running—keeping your business focused on the work at hand. Investments in Linux continue to be valuable throughout the fiscal years.

**Security:** Hackers find a certain glee in creating viruses that target Microsoft vulnerabilities. Linux, on the other hand, is of less interest to these troublemakers, so Linux environments face fewer attacks and malware.

The solid Linux system design has significantly fewer security holes than other server operating systems, and it is more difficult to infect. Walls and flexible file access permission systems prevent access by unwanted visitors or viruses, and viruses are typically isolated to a single user's desktop rather than spreading throughout the entire network.

When security issues do come up, the Linux community is extremely proactive in addressing any gaps quickly. Linux vendors typically respond with free online security updates, which are usually available mere hours after an exploit or bug is found.

The biggest bonus in terms of security can be measured in time saved—no more wasted hours spent monitoring, validating, and applying Microsoft patches.

**Performance:** Linux provides persistent high performance on servers and on networks. It can handle large numbers of users and simultaneous connections. Over time, Linux consistently outperforms other high-end server operating systems.

**Reliability:** Linux is almost universally regarded as one of the industry's most robust and reliable operating systems. Reports of Linux systems running for months or years without needing a reboot are not uncommon. This steadfast reputation for reliability led large companies such as PayPal and the Chicago Mercantile Exchange and many mid-sized companies that demand high availability and reliability to opt for Linux-based systems.

This reliability also leads to higher employee productivity. When systems fail, business activity can halt. Having the reliable Linux operating system helps keep business services running smoothly—and employees working efficiently.

## The QuickBooks Enterprise and Linux Advantage

With QuickBooks Enterprise Solutions on Linux in your business, you have a significant advantage that will give your business a competitive edge.



**Reduced Costs**—Combining Linux and Enterprise Solutions can earn an incredible cost savings. Enterprise Solutions, which is priced as low as \$3,000, is thousands less than alternatives that can cost \$10,000 or more. The first year of Enterprise Solutions includes product upgrades, unlimited support, and online backup, at a much lower cost than the competition.

**Ultimate Flexibility**—Now you can utilize the server operating system of your choice to meet the needs of your business environment. You're no longer constrained to Windows servers; Enterprise Solutions supports Linux and Windows servers.

The flexibility is especially useful for businesses with multiple users in different locations. In these settings, the main QuickBooks data file resides on a centrally located Linux server, and employees can access it from anywhere at anytime.

**Robust Performance**—Businesses that have adopted a Linux operating system are finding its flexibility and performance gives them an edge in their markets. Customers like Ben Rousch of Van Dam Iron Works, who relies on QuickBooks Enterprise Solutions on Linux, have experienced a 10 percent to 25 percent increase in speed after switching from a Windows server to a Linux server.

**Rapid Employee Training**—Your employees are probably already familiar with QuickBooks Enterprise Solutions. If they don't know Linux, the learning curve is not that high. Linux relies on standard, recognizable user interfaces, and employees find them easy to learn and operate.

**Extensive User Community Support**—Intuit's constantly expanding network of local experts can assist you through the installation process and help get Enterprise Solutions up and running on a Linux server quickly. Linux experts are available online on the Intuit message boards and through local user groups for face-to-face, onsite support.

**Stability:** Linux servers are more stable than other operating systems. Linux doesn't need to be rebooted periodically to maintain performance levels. It doesn't freeze or slow down over time due to memory leaks. Properly configured, Linux systems will generally run until the hardware fails or the system is shut down—increasing the overall efficiency of your business.

**Open-source code:** When software code is open, or not based on proprietary standards and protocols, it's much more adaptable. Linux is open-source software that integrates more easily with a variety of systems and supports multiple platforms.

**Flexibility:** Whether your business is a mixed environment of operating systems and desktops or all Linux, Linux gives you the flexibility to migrate the systems that are best suited for your organization. Linux also tends to extend the life of current hardware. Because the processing power in Linux is more efficient, businesses can often depend on older hardware and not have to plan for annual hardware upgrades.

**Broad, Readily Available Support:** Another appealing Linux factor is the extensive user community that offers reliable help and technical support for Linux. The user base supports one another and works together to create solutions. With Linux in your business environment, you will always have a ready group to answer questions and offer technical advice.

## QuickBooks Enterprise Solutions and Linux

Intuit has been watching Linux's progress for years. As more QuickBooks customers adopted Linux, Intuit realized the Linux crowd needed a Linux option for QuickBooks Enterprise Solutions. Business owners wanted to store their financial data on Linux with their other data and program files. More often than not, moving the QuickBooks company data file to a Linux server would save them money because it eliminated the lone Windows server running QuickBooks Enterprise Solutions.

To better support these customers' environments, Intuit took a leadership position with Linux. The 2007 release of QuickBooks Enterprise Solution 8.0 is the only business package in its category that supports Linux. Businesses that rely on Linux servers can now store their QuickBooks company data on Linux and enjoy the multiple benefits that come with a Linux environment.

QuickBooks Enterprise Solutions is an accounting and business management software meant for larger, growing businesses. It's the most powerful QuickBooks product ever. Enterprise Solutions has the capabilities and flexibility to meet the unique needs of growing businesses at a fraction of the cost of other systems. It's important to note that Enterprise Solutions 8.0 supports Linux server implementations, not desktop implementations.

For more information about QuickBooks Enterprise Solutions and Linux, visit: [www.qbes.com/linux](http://www.qbes.com/linux)

## Linux Resources

Linux Database Server Installation Guide (32 page PDF of step-by-step instructions, how-to's, and FAQs) [www.qbes.com/linux](http://www.qbes.com/linux)

Enterprise Linux message board on QuickBooks Community <http://www.quickbooksgroup.com/webx/forums/enterprise/Enterprise%20Linux/>

Linux Online [www.linux.org](http://www.linux.org)

U.S. Linux User Groups <http://www.linux.org/groups/usa/>

QuickBooks Enterprise User Community [www.QuickBooksgroup.com/enterprise](http://www.QuickBooksgroup.com/enterprise)

QuickBooks Enterprise Installation and Setup Guide and more useful QuickBooks Enterprise Solutions resources [http://quickbooksenterprise.intuit.com/resources/white\\_papers.html](http://quickbooksenterprise.intuit.com/resources/white_papers.html)

## About the Author

Robert Diaz Jr. is founder and owner of RDA Enterprises Inc. His passion for programming led him to write proprietary accounting systems early in his career. He gave up programming for accounting systems after he was introduced to QuickBooks DOS v2.0 in 1989, and he began quickly converted his customers to QuickBooks. Diaz has more than 20 years of experience working with QuickBooks, and he holds more than 10 industry certifications, including Master CNE, CDE, ACC, APT, GCE, MCSE, A+, Network +, CNS, CLS, VSP, CCSP.



During the past 21 years, RDA has grown to a multinational corporation, with strong partnerships with Novell, Intuit, Citrix, Sage, HP, and many other industry leaders. RDA's expertise includes network integration, services and support, custom programming, and identity management solutions.

## Network Requirements

The following table provides the network requirements for the Linux Database Server Manager.

Network	Minimum
Network Card	100 MBps
Switch or Router	100 MBps
Network Bandwidth	40 MBps

RDA designed a small to medium-size business accounting solution that secures the desktops, while providing a faster, more robust and secure data server. This all-in-one package offers many options, such as administrator/end user training and a quick installation option to help lower IT costs. The solution uses a Linux server, Open Source Office Suite, and Microsoft Utilities to provide a best-of-the-best solution that is robust, cost effective, and secure.

As a QuickBooks Enterprise Solution Provider, RDA combines its extensive experience in accounting, networking, and security to deliver a high-performance, highly-available solution.

For more information about RDA, visit [www.rdanet.com](http://www.rdanet.com)

## Notes

*A server is a computer that stores files and programs that can be shared by many users. Desktops are the computers that the staff relies on for their day-to-day projects.*

*To take advantage of all the great financial features in Enterprise Solutions, you will need to install the QuickBooks company data file on the Linux server and load Enterprise Solutions on a desktop with a Windows operating system. Users will manage all financial activities through Enterprise Solutions on the desktop, which accesses the QuickBooks company data files stored on the Linux server. This model gives business owners the opportunity to maintain—or deploy—a Linux server environment and still use the powerful features in Enterprise Solutions. Technically, Enterprise Solutions can work on any Linux server. Keep in mind that Intuit supports Linux distributions from Novell and Red Hat. Future support may be added, depending on customer needs.*

## System Requirements

The following table provides the hardware and software requirements for the Linux Database Server Manager.

Hardware and Software	Minimum	Recommended
Processor	1.2 GHz Intel Pentium III	2 GHz Intel Pentium 4
RAM	1 GB	As much as possible
Disk Space	1 GB	1 GB + additional space for the QuickBooks company files
Operating System	Open SUSE Linux Enterprise Server 10.2 Kernel 2.6.9 Fedora 6.0 (RedHat) Kernel 2.6.18 <b>Note:</b> Linux Database Server Manager is tested only on these operating systems.	
Required Packages	gamin-0.1.7-7.fc6 (Fedora) fam 2.7.0-29 (SUSE) fam-server 2.7.0-29 (SUSE) glibc-2.5-3 libgcc-4.1.1-30 libstdc++-4.1.1-30	
File Sharing	Software Samba 2.2.12	