



# Linux on HP ProLiant

Sales success guide



# Linux simply runs better on ProLiant.

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# HP is "tops" in Linux sales.



HP is the undisputed number one in Linux server sales with the broadest choice of industry-standard servers for companies of all sizes.<sup>1</sup> HP was the first vendor to ship over one million servers and is consistently ranked number one for Linux server units and factory revenue throughout the ProLiant line.

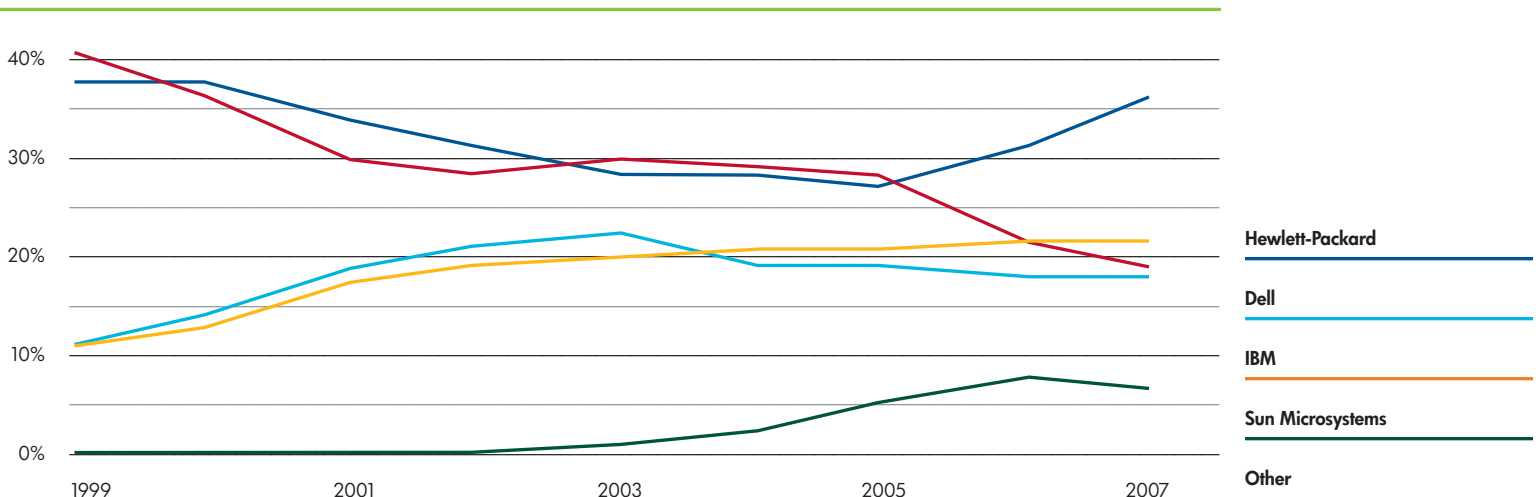
According to IDC, during 2007, HP shipped a ProLiant server running Linux every minute of every day.

Our market leadership is clearly visible in our revenues as well as our track record for innovation in the industry. For nine years, HP has captured the most revenues and sold the most Linux servers. Our services revenues are rising exponentially and our training revenues are just about doubling each year.

Join our success. Increase your Linux on ProLiant sales and you can increase your sales, increase our revenue and increase your value to customers. We'll help make it easy.

This sales guide gives you all the information you need to sell Linux on ProLiant. And if you need more help, contact us at [linux.proliant@hp.com](mailto:linux.proliant@hp.com).

**Figure 1.**  
Linux x86 market performance (revenue)



Source: IDC Worldwide Quarterly Server Tracker, November 2007

<sup>1</sup> IDC Worldwide Quarterly Server Tracker, November 2007

# Open source software

Proprietary software has ruled the software landscape. Users are not allowed to redistribute it, source code is typically not available and you can't modify the programs. Most software is rigid and static—and quickly outdated, so users frequently need to buy upgrades.

The landscape is changing. Although open source software has been around for decades, it has not been embraced by many companies because they either don't understand it, don't feel knowledgeable enough to adopt it, or they think they are already too invested in proprietary software.

Demystify open source for your customers. Open source software is not necessarily free of cost. It is free in the sense that you can:

- Use the software anyway you want, for whatever you need, on as many computers as you have.
- Modify the software to fit your needs—fix its bugs, enhance its functionality and improve its operation.
- Redistribute the software—before or after it gets enhanced—to anyone else who can then use it anyway they see fit.

Linux has been the poster child for open source software. Linux is a remarkably complete, open source operating system. It conforms to the Portable Operations System Interface (POSIX), which allows developers to write programs that can be ported to other operating systems. And Linux adoption in enterprises is growing—fast. Many, including HP, consider Linux to be a mainstream operating system (OS).

Tell your customers about the benefits of Linux on x86 servers, show them how easy and cost-effective it is for their business, and then close the deal with HP ProLiant servers. An HP customer with Linux and ProLiant will be a happy, repeat customer.

## The HP ProLiant and Linux portfolio

Linux simply runs better on ProLiant. Compared to our x86 competitors, HP has better technology, better management, better performance and better support for Linux with ProLiant.

# ProLiant and Linux: simply better

HP supports every single open source application that ships with the certified Linux distributions—including PostgreSQL, Apache and Evolution. Here are the top HP differentiators:

- HP solid engineering discipline
- HP broad support portfolio and offerings
- HP broad management solutions (Insight Control, XC, SIM, etc.)
- Complementary HP offerings (HP StorageWorks, HP ProCurve switches, etc.)

ProLiant servers running Linux have better technology, better management, better performance and better support. It's just that simple. And it takes all of these elements to create a truly reliable, high performing Linux platform.

## Better technology

HP (along with Compaq) has been a leader in x86 server technology for many years. We provide a broad choice of form factors for almost any business need. We have tower-based solutions for smaller enterprises or branch offices, rack-optimized solutions for larger enterprises and data centers, and blades for all types of companies. By partnering with both Intel® and AMD®, HP offers better flexibility and choice.

HP has a solid engineering discipline. In the early days of ProLiant, it was quickly apparent that reliability, consistency and ease of use were key customer requirements. So we built ProLiant to meet those requirements. This rigorous engineering has successfully allowed seamless transitions from tower-based servers to rack-mount servers—and more recently to blade servers.

HP continues to lead the way in innovation on standards-based platforms. Many of the capabilities you see in x86 based servers from all vendors were available first on ProLiant.

Perhaps the best example of this is HP BladeSystem. HP BladeSystem technologies offer a solution to the complexity, power and cooling challenges and space constraints now faced by sites wishing to expand their capacity. Tangible benefits include Thermal Logic, Insight Control and Virtual Connect.

HP technology provides:

- Broadest choice of industry-standard technology
  - Tower
  - Rack optimized
  - Blade
  - Long history of innovation
  - PCI hot plug
  - Remote management
  - Power and cooling

ProLiant also provides complementary hardware and software to help you build out a solid and reliable infrastructure. HP expertise helps you select, size and implement your best solution.

ProLiant has a broad set of offerings for diverse Linux customer needs. We offer the complete solution and HP can customize, install and deploy your Linux servers for you.

The latest ProLiant sales guide is available at [www.hp.com/go/proliant/familyguide](http://www.hp.com/go/proliant/familyguide).

**Figure 2.**

ProLiant models for Linux customer needs

Business need	HP ProLiant server
Simple, affordable computing with basic features and low cost	<ul style="list-style-type: none"><li>• ML110</li><li>• ML115</li><li>• ML150</li><li>• DL140</li><li>• DL145</li></ul>
Enterprise versatility and value from remote office to data center environments	<ul style="list-style-type: none"><li>• ML310</li><li>• DL320</li><li>• DL320s</li><li>• ML350</li><li>• DL360</li><li>• DL365</li><li>• BL460c</li><li>• BL465c</li></ul>
Industry-leading performance for the data center	<ul style="list-style-type: none"><li>• DL380</li><li>• DL385</li><li>• ML370</li><li>• BL480c</li><li>• DL580</li><li>• DL585</li><li>• BL685c</li></ul>



## Better management

The HP philosophy of server management is to provide tools that help IT administrators effectively and reliably manage their servers. HP has done exactly that with management tools that make it easy to manage a Linux environment. Specific areas of focus include deployment, monitoring and maintaining with best-in-class server software modules. Here is what we use to do it:

### Deploy

- SmartStart scripting toolkit—includes a modular set of utilities and important documentation that describes how to apply these new tools to build an automated server deployment process. Examples of advanced Linux scripts are available and will be integrated into the next release of the toolkit.
- Insight Control Linux Edition for HP BladeSystem—is an all-in-one, Linux-hosted, in-depth management and deployment software package for blades.

### Monitor

- Systems Insight Manager—along with optional Essentials software plug-ins, delivers a heterogeneous multi-OS server and storage management solution that helps you holistically monitor and control your environment, which improves operational efficiency and reduces costs.

- System Management Homepage—a web-based interface that consolidates and simplifies the management of individual ProLiant systems running Microsoft® Windows® or Linux operating systems. By aggregating data from HP Insight Management Agents and other management tools, the System Management Homepage provides an intuitive interface with enhanced security features to review in-depth hardware configuration and status data, performance metrics, system thresholds and software version control information.
- Performance Management Pack (PMP)—is an integrated performance management solution that detects and analyzes hardware bottlenecks on HP ProLiant servers and HP Modular Smart Array shared storage devices.
- Health application and management agents—perform the hardware system inspection and report back the data found to HP SIM, ICLE or other management applications.
- iLO 2 remote management—built into ProLiant 300, 500 and BladeSystem servers; it provides basic and advanced levels of remote control management—anytime, outside the office.

### Maintain

- Online ROM flash—a utility that allows you to make critical ROM updates without taking the server down.
- HP Dynamic Power and Cooling—the latest HP innovation produced from over a decade of research efforts, it enables the equipment to interact with the facilities that support the data center, driving improved efficiency and changing data center energy costs from a fixed to a variable cost and significantly increasing IT scaling headroom.
- Array Configuration Linux Utility—a utility that allows you to easily configure and expand disk drive arrays when your storage requirements increase.

### Get it all together

HP Insight Control Linux Edition (ICLE) provides exceptional deployment functionality and outstanding control for remote management of the Linux-centric server environment. HP ICLE is the complete HP lifecycle management suite for a Linux-centric environment. With ICLE, you will be able to discover and deploy, monitor and alert, maintain, configure, schedule, and change your server environment. Features such as one-to-many deployment; event monitoring and e-mail alert notification; reporting and scripting; redeploy and scheduling patch/events combine for a robust Linux platform management tool.

## Want to learn more? Visit the following sites:

Oracle Enterprise RAC for Linux

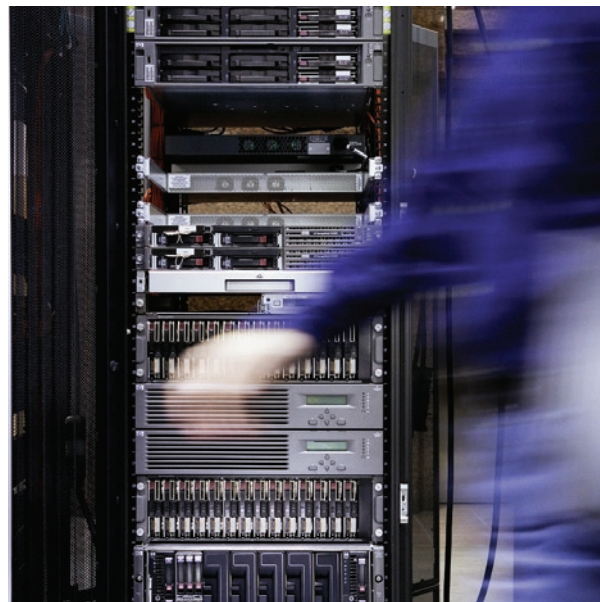
<http://h71028.www7.hp.com/enterprise/cache/483425-0-0-0-121.html>

HP BladeSystem reference architectures for Oracle Grid

<http://h71028.www7.hp.com/enterprise/cache/494866-0-0-0-121.html>

Recommended single-instance database configurations

<http://h71028.www7.hp.com/enterprise/cache/386995-0-0-0-121.html>



## Better performance

Extensive integration testing between Linux software and HP ProLiant servers creates exceptional quality assurance. In fact, HP regularly participates in Linux vendor beta programs to help enable quality support when new products are released.

In response to customers' concerns about potential risks associated with implementing open source technology, HP developed Linux-based Oracle-validated configurations and reference architectures and Open Source Integrated Portfolio (OSIP) aimed at making deployment of Linux solutions easier.

As the leader in Oracle® deployments HP has the experience to know that a continuous learning process is the only way to decrease uncertainty. To that end, HP is accumulating knowledge in support of our customers on three fronts. First, HP supports Oracle's Validated Configurations for Linux program. HP supports its extensive server and storage portfolio based on operating system certification just as Oracle certifies its products, but the Validated Configuration program goes to the next level by documenting the details of expert deployment of RAC on Linux. Second, through the HP Reference Architecture program where we go beyond core functionality and deployment testing to address compatibility and manageability issues in the context of the broader solution by integrating Oracle Fusion Middleware, Applications and shared service functionality. Third, we supply recommended configurations for customers primarily interested in single-instance database/application environments on HP ProLiant servers.

The HP Open Source Middleware Stacks (OSMS) give Linux customers three different ways to adopt open source technology on HP platforms. Customers can select from supported building blocks of best-of-breed software components; functionally specific do-it-yourself blueprints of integrated and supported middleware stacks; and consulting services, for a services-led engagement to generate fully customizable middleware stacks from open source as well as commercial software including certifying best-of-breed third-party solutions like JBoss and MySQL. Customers are offered everything they need for a successful Linux implementation. More information on OSMS solutions can be found at <http://docs.hp.com/en/linux.html>.

No coverage of performance would be complete without highlighting a few benchmarks. The following are a small sample of benchmarks as of November 2007, HP leads with Linux on ProLiant.

- #1 SPECint\_base2006
- #1 1P SPECint\_rate\_base2006
- #1 1P SPECint\_rate2006
- #1 1P x86/64 SPECfp\_2006
- #1 1P x86/64 SPECfp\_rate2006
- #1 1P x86/64 SPECfp\_rate\_base2006
- #1 4P SPECweb2005 Performance
- #1 TPC-C Overall price/performance
- #1 1 Node SPECjAppServer2004 performance
- TOP 6 Oracle E-Business Suite small model benchmarks

Visit [www.hp.com/products/servers/benchmarks](http://www.hp.com/products/servers/benchmarks) to see a list of the most recent HP benchmarks for Linux on HP ProLiant.

## Better support

HP has years of experience, a comprehensive portfolio and the global presence needed to fully support ProLiant Linux environments. When you buy Linux from HP, you get HP support and the largest IT customer support organization in the world.

HP resolves 99 percent of all Linux support calls. In 2006, HP received about 35,000 Linux support calls and almost all were handled directly by the HP support organization, without needing to escalate to our Linux distribution vendors. HP can serve its customers with a one-stop shop and support them and remain accountable for the entire solution lifecycle.

## Why HP support services for Linux?

- Largest IT customer support organization in the world – 40 years of experience
- Leading managed services provider of multi-vendor environments
- Over 6,500 open source and Linux professionals – 16 response centers worldwide
- Advanced remote monitoring and diagnosis tools
- Software engineering service-level agreements (SLAs) with best-of-breed partners – two-hour response
- Flexible range of support services to address 9x5 or 24x7 service-level business demands

### HP subscription renewal process

Companies who have purchased Linux subscriptions and support directly from HP are automatically notified 90 to 120 days prior to contract expiration to renew their services.

Once the services have been renewed, the customer will be sent renewed entitlements to their Linux subscriptions, and a letter confirming support has been renewed with instructions for obtaining support. Channel partners will need to initiate the renewal process on behalf of their customers.

HP also provides subscription and support options.

**Figure 3.**  
Linux subscription and support options

#### Subscriptions options

- 1-year **or** 3-year
- Subscription only **or** subscriptions bundled with services
- 1 processor to unlimited
- Blade enclosure
- HPC
- Factory installed

#### Bundled telephone service support options

- 1-year **or** 3-year
- 9X5 support **or** 24X7 support
- Unlimited **or** incident-based (unbundled)

One of the most important aspects of the ProLiant story is the experience that backs up ProLiant Linux solutions. HP has the experience and the ability to offer Red Hat and Novell Linux subscriptions bundled with HP support. The following are the top ten reasons why Linux subscriptions should be purchased from HP.

1. **One-stop shop for Linux on ProLiant:** Obtain your ProLiant servers and a single part number for Linux subscription and support.
2. **Single point of Linux support accountability:** Gain one-stop shop support for your combined ProLiant server and Linux operating system solution.
3. **Linux technical support excellence:** HP solves approximately 99 percent of support calls before engaging Linux vendors, and has expertise in debugging hardware and software driver issues with 6,500 service professionals.
4. **Path to proactive support:** In addition to installation and start-up services, HP offers HP Proactive Essentials, HP Proactive 24 service, HP Critical Service and Integrated hardware/software support.
5. **Linux support renewal process:** HP offers proactive assistance in verifying that you have up-to-date subscriptions and support.
6. **Linux subscription management:** HP offers co-terminus subscriptions and hardware support which can be pro-rated to expire at the same time as previously purchased subscriptions.
7. **Customization, configuration and integration:** HP Factory Express is a robust portfolio of flexible, pre-priced, pre-installed, configured, customized and integrated factory solutions and deployment services—supporting HP ProLiant servers with Linux.
8. **Tailored purchase options:** HP offers a broad and affordable range of version-less subscription options including subscription only or the ability to add 9x5, 24x7 or incident-based support.
9. **High-performance computing Linux SKUs:** HP provides subscriptions specifically tailored for high-performance computing (HPC) environments, and priced accordingly.
10. **Linux software financing:** HP helps you acquire Linux solutions cost-effectively, and manage that solution throughout its lifecycle.



# Discover the opportunity.



Who is the right customer? It depends on the company and how many servers they have deployed and their software strategy. Deciding on server OS is really only a small part of the conversation. Before you get to Linux, discuss the application strategy and put together a cost benefit analysis.

The CIO or CFO is typically the best person to discuss an application strategy and cost savings over several years. However, you might have the conversation with many decision makers or influencers.

- **IT managers**—Tell them that it works and they won't have to wake up at 3 a.m. to solve problems.
- **Financial/purchasing**—Tell them that we're worth the premium due to reducing the cost of downtime.
- **Users**—Show them the quality and engineering that make their applications available. They will be able to do real engineering instead of IT work.
- **The architect**—This person is typically a visionary but not a risk taker, the architect is usually the first person you meet in the sales cycle.
- **Business manager**—This person owns the application and may be forced to cut costs relative to budget.

# Key opportunities

HP ProLiant and Linux offer a great solution for most verticals—but especially for most high-performance computing environments, financial services, public sector and telecommunications.

Linux has been in the IT rooms of Fortune 500 companies for years. While it is better understood and accepted by enterprise customers, the mid-market is emerging as a good target—especially if the mid-market enterprise outsources its IT. Many small companies with limited or no IT staffs are intimidated by Linux. Reassure them of its ease and versatility, and you will have a new customer.

## Looking for leads?

Some of the top characteristics that make companies favorable leads for a Linux/ProLiant solution are:

- They are looking to migrate away from proprietary RISC/UNIX® server environments.
- They strive for better price/performance.
- They have high-performance computing requirements.
- They really care about quality and support.
- They run an IT shop that needs to be up and running.
- They need a solution that is engineered solidly by an organization partnered with distributors, middleware providers and major partners.
- The same utilities and management tools for the server infrastructure can often be used for Windows and Linux administrators making ProLiant a good bridge server between both worlds.
- HP provides support for the operating system and the hardware, one number to call, which matches the usual UNIX support model customers have today (Solaris™, HP-UX type support).

Other great places to find sales opportunities are:

- Where there is already a Sun installed base or a consolidation opportunity with HP BladeSystem where a data center might be at the beginning of the build-out phase
- A company wanting to take full advantage of x86
- When there is a desire to reduce costs IT acquisition costs
- A company moving away from proprietary technology and embracing open industry standards
- Customers looking for a UNIX grade operating system without moving away from x86—A UNIX-like experience at x86 prices
- Customer looking to move or consolidate away from Solaris or AIX
- Customers looking to move away from NetWare
- Customers looking for an open operating system
- Customers looking for file, print and mail services
- Customers looking to run open source applications like MySQL
- Customers looking to run commercial applications like Oracle or SAP
- Customers looking to deploy a cluster farm
- Customers looking to deploy web servers (Apache) or other edge of network applications

# Helping customers get to yes



To make sure Linux is the right fit for your customers' ProLiant servers, you have to truly understand their business issues. Some of the more common issues that Linux can help solve include:

- Total cost of ownership (TCO) reduction
- Quality of service
- Consolidation
- Collaboration
- Management
- Expense of supporting legacy applications
- Data center at capacity
- Sysadmin ratio not high enough, resources not properly deployed
- Cost relative to performance in a service-oriented architecture

Linux is not always the right fit. Only recommend the right solution and gain your customers' trust. This applies for Windows or Linux. Work with your customer to truly understand what they need and don't fix something that isn't broken. A true cost benefit analysis can be performed for larger accounts. Contact [linux.proliant@hp.com](mailto:linux.proliant@hp.com) to get help.

Customers just considering making the move to Linux have lots of questions. The main issue is that companies want to cut cost while adding infrastructure and at the same time reduce complexity. Help your customers understand what they want and what Linux can provide. Ask them:

- What are your pains around Linux?
- What operating system do you use and how do you source it? Did you know that HP can provide the operating system and best-in-class support for this?
- Do you have an open source strategy?

- What business solution are you trying to support with open source and what business drivers are making you investigate open source?
- Are you aware that ProLiant is a great architecture for Windows and Linux environments, many tools are the same, same support model, etc?
- Did you know that HP no longer has to carry versioned Linux SKUs? Purchase a Linux SKU from HP and download any version of the operating system, as long as it's supported by HP.

## Overcome objections.

Customers are usually cautious when making the move to something new. Linux, although on the market for decades, has an air of confusion surrounding it. Customers aren't sure they can do it, it seems too technical, and they don't even know if it can work in their environment. Reassure them with these facts:

- HP has one of the leading Linux/x86 platform offerings.
- HP has solid engineering, test, quality assurance (QA), warranty and support processes; on-site engineers at Linux distribution vendors.
- HP has strong relationships with the ecosystem (community, distributors and application/middleware providers).
- HP can help them run a production environment to meet their HPC or IT computing requirements.
- HP offers complementary support, storage and software.
- HP provides application testing, benchmarks, blueprints, installation guides and reference configurations on our website and on ISV's websites (e.g. Oracle).
- HP has a plethora of management tools that all work together; customer choice.

# HP Services that support Linux on ProLiant

Services, subscriptions and partner relationships all enhance the sale of ProLiant with Linux. Our comprehensive services help customers identify their pain points and solve their problems. Our world-class partnerships and alliances complement the ProLiant server portfolio and provide comprehensive, end-to-end solutions.

Combined hardware and software support services offer Support Plus, Proactive 24 and Critical Services to further extend the value an HP engineer can bring to our customers to identify failing areas and help resolve complex interoperability issues enabling increased availability of their IT infrastructure through improved integrated approach to problem resolution.

**Figure 4.**  
Unique HP Services offerings for Linux

Service	Provides	Service	Provides
Software Updates	<ul style="list-style-type: none"> <li>• Rights to new versions</li> <li>• Product and document updates</li> </ul>	Proactive 24	<ul style="list-style-type: none"> <li>• Hardware four-hour response</li> <li>• Software tech assistance</li> <li>• Two-hour response</li> <li>• Service account manager</li> <li>• Support planning</li> <li>• System health check</li> <li>• Remote diagnosis</li> <li>• 24x7 coverage</li> </ul>
Software Support	<ul style="list-style-type: none"> <li>• Incident and unlimited</li> <li>• Software tech assistance</li> <li>• Two-hour response</li> </ul>	Critical Service	<ul style="list-style-type: none"> <li>• Named tech account team</li> <li>• Support planning</li> <li>• Proactive services</li> <li>• Change management</li> <li>• Six-hour CTR hardware</li> <li>• Software tech assistance</li> <li>• Immediate response for critical problems</li> <li>• Remote diagnosis</li> <li>• 24x7 coverage</li> </ul>
Support Plus and Support Plus 24	<ul style="list-style-type: none"> <li>• Hardware four-hour response</li> <li>• Software tech assistance</li> <li>• Two-hour response</li> <li>• 13x5 or 24x7 coverage</li> </ul>		
Proactive Essentials	<ul style="list-style-type: none"> <li>• Software tech assistance</li> <li>• Incident and unlimited</li> <li>• Support planning</li> <li>• System health check</li> <li>• Two-hour response</li> <li>• 13x5 or 24x7 coverage</li> </ul>		

# Beat the competition.

HP has some stiff competition on the Linux and open source front from IBM, Dell and recently Sun. White box vendors also pose a threat. Collectively we need to demonstrate the value behind the fact that HP ProLiant is a premium product in what is often considered a commodity market. Because Linux is an enabling technology, not a complete solution, the HP Linux solution provides a combination of the best of our corporate strength, which makes us a tough competitor.

Linux remains a tier one operating system for HP and an integral part of the Business Technology and Adaptive Infrastructure strategy. As such, there are numerous strengths which distinguish us competitively in the following categories:

## Best value

Mutually beneficial, long-term alliances with major distribution providers

- Support spanning desktop to data center
- Low TCO with market leading industry-standard x86 servers

## End-to-end solutions

- Powerful, expansive software ecosystem with ISV partners
- World-renown value-add HP software for Linux in the enterprise including manageability and clustering
- Unprecedented optimized commercial, open source, and hybrid HP Open Source Middleware Stacks
- Excellent performance, as demonstrated by numerous industry-leading performance benchmarks
- Broadest, purest open source printing support in the industry

## Worry-free deployment

- Large, trained, highly-rated, international support organization
- Only Linux indemnification program offered by systems vendor
- Stewardship, commitment and embrace of open source technology and community at large
- Common criteria certification to satisfy the highest security requirements of government and public sector accounts
- Credibility from not being encumbered (like IBM and Sun) with a company software stack or proprietary hardware architecture that could bias our interests

## Head to head with the competition

HP sells more Linux than people realize. In fact, we are a leader in Linux installations. However, this message seems to be obscured by our competitors. As we've said, HP provides industry-leading technology, support and services, but what are our competitors claiming? Remember, we're shipping a Linux-based ProLiant server every single minute.

Bottom line: HP is the only vendor in the Linux marketplace to combine firm commitment to open industry standards with best-of-breed technology from our industry-leading commercial and open source partners, complement them with enterprise-strength HP management, clustering, and storage, and deliver, support, and indemnify these secure, non-proprietary solutions on our market-leading ProLiant platforms.

## Bottom line

Unlike **IBM**, the HP consistent Linux strategy is based on industry-standard architectures, which lead to better quality Linux solutions, great flexibility and choice, and lower TCO. IBM's strategy leads to vendor lock-in. Linux on POWER and mainframe is really just a wolf in penguin's clothing.

**Dell** has value for certain customers, but HP expands where Dell leaves off and combines competitive value with far more complete Linux solutions.

**Sun** is playing catch-up. They hope no one will notice they are a recent entrant to the x86 server market and that their support of Linux is no more than a façade buying them time to establish customer acceptance and adoption of Solaris.

### **IBM**

IBM is often perceived as the gorilla in the Linux market, but that it is not the case. IBM may invest heavily in Linux, but so what else is new? IBM is big, but big isn't necessarily better. The fact is that IBM is betting the farm on Linux, and their long-term direction (and, probably, their bottom line) is very focused on customers migrating to Linux. In contrast, Linux remains one component of the HP multi-OS strategy in which Windows, HP-UX, and Linux co-habitate for the long-term. Still, HP competes well in a face-to-face comparison of Linux commitment, software ecosystem, partner following and services capabilities. A key differentiator of the HP approach to Linux is our industry-standard platform strategy vis-à-vis IBM's pursuit to lock-in customers to one of its proprietary architectures. Similarly, IBM may challenge HP with its strong software portfolio, but HP can now compete very effectively with one of many impartial optimized commercial, open source, and/or hybrid software stacks constituting the HP Oracle on Linux solutions and Open Source Middleware Stacks. IBM's Linux/x86 strategy is centered in BladeCenter, which market they lead until 2007. HP has won the market over with BladeSystem and continues to take share from a stale IBM BladeCenter (Q4 2007 IDC Server Tracker).

### **Dell**

Dell is the quieter value-focused Wal-Mart vendor in the Linux arena. They appeal to customers on price, simplicity and straight-shooting. In fact, their motto is: Dell and Linux: where low-cost and standards-based hardware meets low-cost and standards-based solutions. Dell is not to be overlooked, because the principal driving force behind Linux and open source is total cost of ownership, and customers tend to get lower pricing from Dell. Their PowerEdge servers compete aggressively with our ProLiant line. And for developers and Linux purists looking for technology to empower their homegrown solutions on one of many Linux distributions, Dell might certainly fit the bill.

On the other hand, Linux is maturing well beyond desktops and simple projects. Companies are increasingly migrating complex projects, consolidating servers, and turning to Linux as a new environment to replace proprietary infrastructures for their workloads. As Linux moves closer and closer to the data center, Dell will be more and more unprepared to compete against the likes of HP and IBM because its portfolio simply can't compare.

Dell's portfolio breadth is also thin compared to the HP portfolio. Version support of Red Hat alone seems to be limited. Besides the distributions, Dell would also be climbing uphill to defend against our manageability strengths, clustering capabilities, leadership Itanium® 2 line, commercial and open source HP Open Source Middleware Stacks, and even distinct high-end value-adds like common criteria security certification, the testing, which requires the investment and commitment of global systems vendors like HP and IBM—evidently something Dell can't afford to do.

### **Sun**

Sun is renowned for its schizophrenic approach to Linux. Recently Sun did an about face with regards to Linux. In the post dot com era, Sun has struggled to hold onto its installed base of proprietary systems, as more and more companies started migrating toward IT standardization and consolidation with x86 servers mostly with Linux. In a defensive move Sun began offering AMD-based servers. With an industry-standard architecture, Sun had no choice other than supporting both Windows and Linux. From that point forward Sun has experienced significant growth off a small base which only recently has begun to level off. Today, over 60 percent of Sun AMD-based servers run Linux.

At the same time Sun has strengthened its Solaris x86 operating system to compete with Linux. Sun has even begun open sourcing Solaris and making the commercial version available as a free download on their website. Sun hopes the combination of these two approaches along with formal agreements with other server vendors (IBM, Dell) can lead to renewed customer interest and adoption of the Solaris operating system.

Which operating system is Sun more supportive of should be obvious—Solaris. Sun cannot be trusted as a true champion of Linux when they have a vested interest in the outcome of Solaris.

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### Web links

- ProLiant and Linux—  
[www.hp.com/go/proliantlinux](http://www.hp.com/go/proliantlinux)
- Top reasons to buy Linux from HP—  
[www.hp.com/buy/linux](http://www.hp.com/buy/linux)
- ProLiant and Red Hat—  
[www.hp.com/go/proliantrhel](http://www.hp.com/go/proliantrhel)
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- HP Serviceguard for Linux—  
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- High Performance Computing for Linux—  
<http://h18026.www1.hp.com/solutions/enterprise/highavailability/linux/highperformance/hpce/>

### Part numbers

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