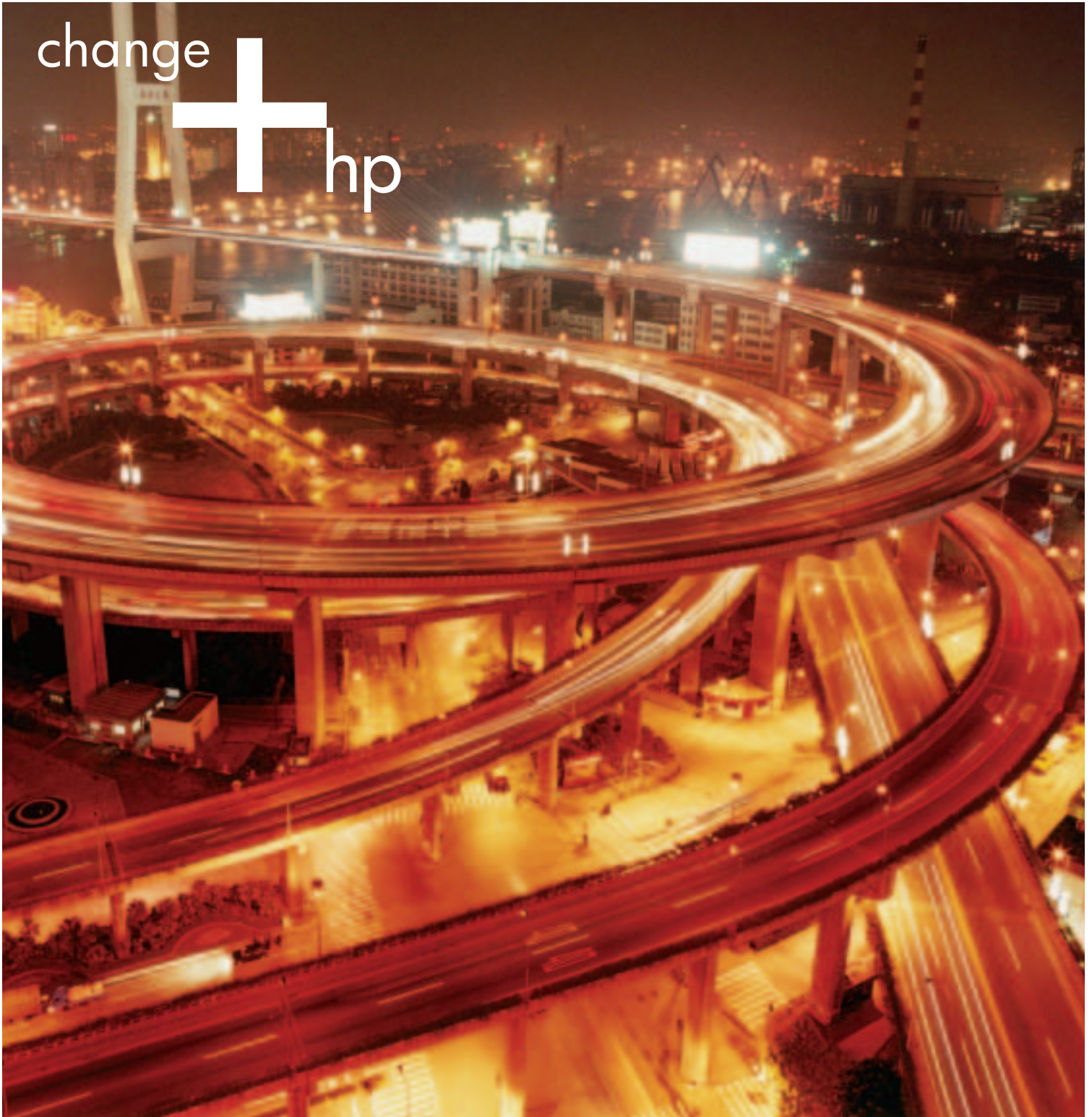Solutions for the adaptive enterprise.

hp invent ®

Linux® on HP BladeSystem

Linux for the real world, built better
with HP BladeSystem: open, scalable
and affordable

change + hp

"Thanks to HP BladeSystem technology with Linux, we reduced the number of servers we need to do the same job by 3:1 or 4:1. Given the higher performance of the HP BladeSystem, even with the much smaller number of servers, we now run three to five times faster."
Roger Gaskell, Director of Development, WhiteCross Systems Ltd.

Over 2,500 HP engineers are involved with Linux and open source technology, many actively contributing technology to the open source community.

Build a better infrastructure – simply.

The best way to build a better infrastructure is to simplify it with the latest open, industry-standard innovations that can help you leap over, around, and past your competitors.

Solutions built with Linux and HP BladeSystem infrastructure deliver outstanding price/performance through industry standards – with enterprise-class functionality that provides you with the open, agile environment you will need to profit from an ever-changing business climate.

By delivering world-class functionality with all the flexibility, scalability and performance you demand – without the complexity, risk and cost you might expect – Linux on HP BladeSystem solutions continue to deliver value at every stage of deployment.

Unlike individual rack-mount component solutions, HP BladeSystem solutions are indeed systems – integrating servers, storage, networking equipment, power and management software. They offer a consistent, modular and integrated design that is easy to deploy, easy to manage, and easy to evolve with your business.

Affordable and scalable, HP BladeSystem solutions are ideally suited for companies looking to grow their Linux infrastructure efficiently and flexibly – or migrate and consolidate to a standardised Linux platform.

Open source architecture means every environment can benefit.

An open source architecture and modular hardware design mean that your Linux on HP BladeSystem solution can help you mix and combine resources to:

• Support a vast range of enterprise or infrastructure applications

• Drive consolidation and migrate your proprietary symmetric multiprocessing (SMP) UNIX® systems and UNIX infrastructure, such as Solaris

• Construct high-availability cluster, grid and high performance computing (HPC) environments

What's more, your HP solution can be easily integrated with existing environments – introducing management processes that are more cost-effective and infrastructure components that are more affordable. For example, HP can help you create an integrated, open environment with full control, using the best technology for each task – and we can help you implement strategies for growth, management and high availability across your entire environment.

> "Our infrastructure, based on the HP Adaptive Enterprise blueprint running Linux on HP BladeSystem, can handle anything we throw at it. In it, we found a stable platform for our PeopleSoft EnterpriseOne and Siebel applications."
> Jay Castleberry, Infrastructure Manager, Fleetwood Enterprises, Inc.

HP was #1 in the Linux market in 2003 and 2004.

IDC Worldwide Quarterly Server Tracker, February 2005

HP extends its flexibility to a choice of applications.

Virtually any application capable of migrating to an x86-based server or cluster today is going to benefit more from the agile, standards-based, open architecture of a Linux on HP BladeSystem solution. Everything you look for when choosing an application – scalability, reliability and performance; cost-effective operations; the ability to adapt to business changes; and improved efficiencies across the environment – is accelerated by Linux solutions on HP BladeSystem infrastructures.

The HP solution provides convenience.

Linux solutions on HP BladeSystem utilise cutting-edge technologies to create an advanced infrastructure that unifies resource management, allocation and consumption – yet your new environment will be as familiar to you as the traditional infrastructures your staff has spent years building. Time-wasting activities are eliminated. It's racked and wired once, and with very few cables – greatly simplifying connectivity and reducing costs. Changes to network and storage paths are made through the management console without rewiring. Power distribution is also simplified, consolidated and actively monitored.

With built-in redundancy, HP's BladeSystem infrastructure facilitates the sharing of resources such as power and networking for more cost-effective high-availability strategies – and provides a better solution to meet future power, cooling and performance scalability demands.

Run the applications you want – and the applications you need.

The engineers who built Linux on HP BladeSystem solutions have made sure you can work smoothly with the most popular open source and packaged applications available, such as BEA, JBoss, MySQL and Oracle® – and many others. But you can also adapt your infrastructure solution to your custom applications.

Server management further simplifies the HP solution.

Managing a Linux environment is not a one-size-fits-all proposition. Variables include your application and environment, the expertise and tools available in your current IT department – and your vision of where you want to go tomorrow.

HP supports a wide variety of choices to make the management of your Linux solution on an HP BladeSystem as simple and powerful as you require. Depending on your management needs, HP offers open source tools, third-party products – and, of course, the HP management tools portfolio.
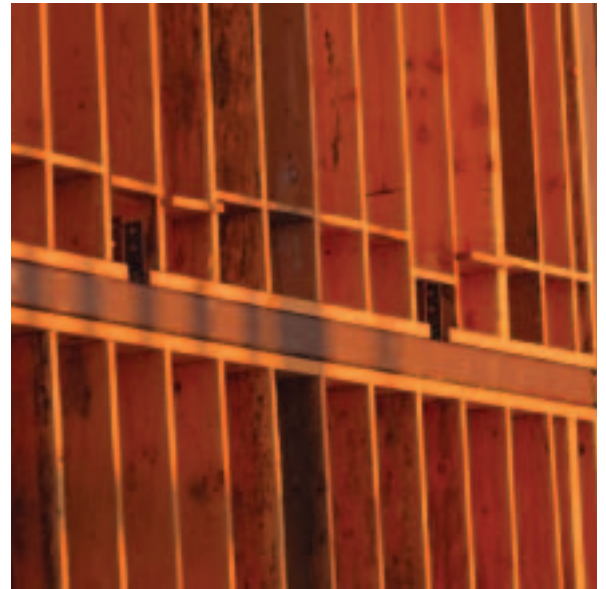
To reach the ultimate management potential of your Linux solution on HP BladeSystem infrastructure, HP offers a comprehensive management stack comprising HP Systems Insight Manager, ProLiant Essentials, open source tools and HP OpenView management software. These tools offer more advanced options for automated control and virtualisation of the infrastructure, more affordably and simply than any other option.

Linux on HP BladeSystem solutions handle all corporate demands.

- **Flexibility and serviceability.** Solutions and services based on industry standards help increase your flexibility to react to customers' needs – resulting in increased revenue, better-utilised resources and happier customers.

- **Improved availability.** High data availability and rapid access to business-critical applications help you simplify and standardise operational procedures through our overall system design – saving time.

- **Better performance.** The latest in computing power is delivered in 1-way to 4-way configurations – providing a measurable performance advantage in a variety of single-application, cluster and scale-out environments.

- **Simplified manageability.** Easier management helps accelerate deployments, simplify operations, support data availability – and boost the efficiency of your IT staff.

- **Increased adaptability.** Hardware can be allocated to scale capacity and performance based on specific workload demands and business priorities – making your business more agile, responsive and competitive.

- **Lower cost of ownership.** Greater hardware utilisation, lower-cost hardware and software, and more efficient processes mean your people can perform less maintenance and create more innovation to benefit the business – all while using processes that are familiar to your in-house experts.

How to determine if the HP solution is right for you

You can put your Linux on HP BladeSystem solution to the test – in your environment, under actual business demands – at no cost or risk to you.

To help you measure the total cost of ownership (TCO) savings for your unique environment, your local HP sales representative can arrange a TCO consultation for your Linux on HP BladeSystem solution.

The assessment relies on an analysis backed by third-party research that walks you through "what-if" scenarios, providing a compelling aid in the decision-making process. The tool also utilises user-defined data to produce results that are specific to each organisation – helping to create custom cases and plans. Moreover, templates for the most popular projects and hundreds of return-on-investment (ROI) worksheets are also included.

Your TCO test should be the first step toward a Linux solution on HP BladeSystem. It will help your team uncover hidden project costs, identify benefits and make a quick assessment of numerous scenarios and value propositions.

Then you can move ahead at your own pace, working hand-in-hand with HP to use a Linux on HP BladeSystem platform to transition existing applications. Or, use it to deploy new applications first – and best – on an advanced infrastructure based on open standards; open source software; and industry-standard servers, networking and storage. You can also build the solution better with HP Services and the industry's first reference standard for interoperability that supports the success of your project – the HP Linux Reference Architecture.

Linux on HP BladeSystem
Benefits at a glance

- Operations and management expenses are dramatically reduced and simplified, so you can focus on strategic business – not routine operations.

- Unmatched flexibility means services can be launched or enhanced faster than ever before to neutralise competitive threats and capitalise on opportunities.

- Capital spending falls as over-provisioning is eliminated – and complexity of software and hardware environments is simplified.

- Unrivaled partnerships with Novell and Red Hat provide a fully supported Linux operating environment.

- HP helps your Linux environment remain agile and responsive to changing business needs.

Linux is the fastest-growing operating system in history.

HP makes a smooth migration possible.

HP Services professionals have extensive experience managing application migration projects involving millions of lines of code. In fact, HP is one of the few organisations to have reached Level 5 of the Capability Maturity Model assessment offered by Carnegie Mellon Software Engineering Institute – a leading authority on software engineering best practices.

When you work with HP, you are leveraging the world's largest operating system development environment. Our operational and support experience is repeatable – creating efficiencies that lower costs.

As part of our Software Consulting & Development Services, we have designed a structured, step-wise methodology that migrates your applications to Linux smoothly, quickly and cost-effectively. HP Services professionals tune these applications for optimal performance – and complete the process with training and the transfer of critical operational knowledge to your staff.

Our approach is phased and built on industry best practices:

- Planning and detailed assessment
- Tools for development and customisation
- Test migration
- Application migration
- Acceptance
- Installation, warranty and product support

We've learned that adherence to a rigorous process significantly reduces the risks inherent in a complex migration. The end result of your HP-managed migration is an environment that fully tailors your computing resources to your needs – and offers a clear roadmap to the future.

How you can bring the power of the HP portfolio to your solution

The HP Linux Reference Architecture (LRA) is a complete, tried and tested Linux platform configuration and middleware stack with a full array of HP consulting, integration and support services. LRA simplifies decision making, accelerates solution deployment, reduces risk and cost – and validates results with proof-of-concept testing.

HP Services helps you build it right the first time.

Our Linux and HP BladeSystem services portfolio allows you to use HP expertise as needed – and tailor it to your specific requirements. You will have access to a vast array of highly qualified and diversified skills covering all facets of your open system support needs, including a deep knowledge of multivendor hardware and software environments – not just HP technologies.

HP Services can deliver:

- **Process and solution design:** Comprehensive solution design, migration, optimisation and support services that can tailor a Linux solution running on the HP BladeSystem to your needs. HP offers a range of services including assessment services, porting and migration, pilot implementation and data centre design.

- **HP Care Pack Services:** These standard service packages cover a range of installation and startup and support services, available either at fixed prices or via a customised Statement of Work. The goal is to deliver flexible deployment and support offers that can be purchased when and where you need them. HP Care Pack Software support provides your IT staff with fast, reliable, access to HP Response Center Engineers who provide expert advice on software features and use, problem diagnosis and resolution, and access to patches.

- **HP Deployment Services:** HP Factory Express is designed to help you get more from your technology investment and extend your valuable resources.

A pre-defined and pre-priced portfolio of configured, customised and integrated factory solutions and deployment services, Factory Express can accelerate your business results. It provides predictable, trusted, and tested IT solutions designed to enhance your productivity. With Factory Express, you can customise the Bladesystem to your exact specifications at the HP factory – helping you plan and meet budget goals, cut costs, speed up deployment and free up internal resources.

- **HP Integrated Support:** HP Integrated Support for your complete Linux on HP BladeSystem infrastructure helps you reduce complexity and cost with a single point of accountability for consistent service levels and outcomes. It consolidates responsibility for vendor management and service delivery across your entire Linux solution stack, from multivendor hardware to networks to applications.

- **HP Education Services:** Training for all your Linux and HP BladeSystem education needs – embracing the requirements of end users, system administrators and support personnel. Our online and instructor-led courses build both core and advanced skill sets and can help you improve system performance and availability.

Our commitment is to help you speed up time to market through reduced implementation times – while you build Linux expertise within your organisation through rigorous knowledge transfer.

For more information, visit:
www.hp.com/hps/support

Indemnity

HP is committed to the success of its enterprise customers and to driving Linux into the enterprise. The HP Indemnity programme offers significant value in helping to protect your business interests as you deploy Linux-based solutions. Since 2003, qualified customers have obtained indemnification from HP against legal action from SCO. HP is making this offer to protect you and to allow you to continue your Linux deployment plans without risk or distraction.

To learn more, visit:
www.hp.com/go/linuxprotection

Financing your solution can also be flexible.

HP understands that deploying your Linux on HP BladeSystem solution takes planning – and resources. That's why HP Financial Services offers a variety of transition, acquisition, management and disposition services to help you effectively manage your IT infrastructure and your balance sheet at the same time.

For more information, contact your HP sales representative or visit:
www.hp.com/go/hpfinancialservices

Build it better with Linux for HP BladeSystem, and never think about infrastructure again.

Migrate to where innovation is happening. Linux is the fastest-growing operating system and the HP BladeSystem is one of the fastest-growing infrastructure platforms today. Both are redefining computing and delivering innovation at a record pace – driving down the cost of computing and ultimately delivering the most value for your business.

By combining the scalability of the HP BladeSystem and the price/performance of x86 processors – along with industry-leading consulting and support services – HP solutions enable data centres to leverage Linux for mission-critical applications.

Take the next step today.

To arrange for your free total cost of ownership (TCO) test of a Linux on HP BladeSystem solution – in your environment, under real-world conditions – please contact HP, your local HP sales representative, or your local reseller.

For more information on the Linux on HP BladeSystem solution, please visit:
www.hp.com/go/linuxbladesystem

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To learn more, visit www.hp.com