IBM

IBM middleware on Linux.

Take a fast path to on demand business

Today's IT professional faces a challenging business environment

Customers are demanding that their partners, suppliers and vendors link sales offices with support teams and marketing efforts with technical resources.

The line-of-business side is driving to keep up with customer demands…to anticipate and respond to customer needs and marketplace changes. IT is working to streamline and integrate core systems and applications…to maintain a highly secure environment…and to provide enhanced functionality and reliability at lower total cost of ownership.

There's a term for accomplishing this. It's called on demand, and it refers to a business whose processes are integrated end to end across the enterprise and out to key customers, partners and suppliers. An on demand business can quickly respond to changing customer demands and emerging market opportunities.

Building a successful on demand business requires your underlying IT architecture to easily support changing requirements. To that end, two crucial elements must be in place: the right operating system and the right software.

For this, many professionals are turning to Linux® and IBM. Linux, of course, is the open-standards-based operating system that is designed for on demand business, supporting application portability across a range of hardware.

The IBM portfolio of middleware runs in concert with Linux. IBM recognized the potential of Linux early on and embraced it. The result: The combination of IBM middleware and the Linux operating system gives you the flexibility to respond to market changes, capitalize on opportunities and help simplify your IT infrastructure—all goals of an on demand operating environment.

The combination of IBM middleware and the Linux operating system provides a reliable way to build an on demand business.

IBM, Linux and open standards: Three elements of a successful on demand business

IBM and Linux facilitate an operating environment that lets you react to the market while simplifying your IT infrastructure. It integrates your IT resources with your partners' and suppliers', fostering the kind of communication and collaboration that helps e-business thrive.

Allowing different systems to interact

Integrating an IT environment with your customers, partners and suppliers can be a complex task. After all, some of them are bound to have IT infrastructures that are different from yours. That is why a critical element to a successful on demand business is open standards. By allowing disparate systems across enterprises to interact with each other, open standards can:

- *Help avoid proprietary lock-in*
- *Provide flexibility and choice of vendors for customers*
- *Enable portability of applications and skills*
- *Keep costs down*
- *Facilitate faster development and deployment of new applications*

How open is Linux? It runs on more hardware architectures—from PDAs to supercomputers—than any other operating system in use today. It provides a common programming interface across hardware platforms so independent software vendors (ISV) can easily port middleware and applications. This means you can make a Linux decision today and still choose what hardware to run it on tomorrow.

More reasons why IBM and Linux go together

You're in business. You take calculated risks. But you need a software platform you can trust. That means tried and tested middleware, as well as great application software. It also means an operating system that can meet all your demands—a system that's ready for business. Linux is easily adaptable to an increasingly broad set of business scenarios.

Why do IBM software and Linux make such a powerful combination?

- *Flexibility.* The IBM commitment to open standards, combined with the implementation of both IBM software and Linux across heterogeneous platforms, means you can choose the best hardware and software for each task and easily integrate new applications with existing systems.
- *Reliability.* Both IBM software and Linux already have proved their scalability and availability in real customer environments. Together, they can make your total solution more robust while increasing productivity and improving customer responsiveness.
- *Cost-effectiveness.* The combination of IBM software and Linux can help contain and reduce your IT costs in a variety of ways—from lower operating system software costs and better distributed systems management to more flexible hardware choices.

More than 250 IBM middleware offerings for Linux…and counting

IBM has the industry's most comprehensive offering of middleware solutions for Linux to deliver on all attributes of on demand business—and provides the results you and your customers want now.

Over the last few years, IBM has created more than 250 middleware offerings for e-business on Linux. In turn, ISVs have built on these offerings and created over 6,500 Linux-focused applications ranging across multiple industries.

Middleware offerings for Linux from IBM cover three key areas:

• *Industry Solutions.* Composed of products from ISVs and industry-focused middleware from IBM, these solutions are customized to address the specific issues your industry is facing.
• *Integration Solutions.* These solutions integrate your people, processes and/or information in a way that improves your return on investment (ROI) and helps you keep a step ahead of the competition.

• *Infrastructure Management Solutions.* This comprehensive portfolio includes solutions for availability, security, optimization, provisioning, infrastructure orchestration and business service management.

Industry Solutions: Middleware that's relevant to your business

Industry Solutions from IBM and our partners consist of core middleware products that are specially optimized for Linux. With industry-friendly adapters and extensions, these solutions help you focus on the relevant issues your specific type of business faces. And because standard or common business services are included as prebuilt code, you can accelerate time to value.

Industry Solutions from IBM and our partners are built on decades of industry-specific expertise and knowledge, business consulting and deployment services.

Industries using IBM middleware on Linux:

• *Automotive*
• *Banking*
• *Energy and utilities*
• *Financial markets*
• *Government*
• *Health care*
• *Media and entertainment*
• *Retail*
• *Telecommunications*

Integration Solutions: Linking people, processes and data

Businesses like yours are looking for innovative ways to improve ROI…enhance customer value…and outpace the competition. Increasingly, they're finding that the key to doing so is by linking people, processes and information.

To achieve this objective, Integration Solutions middleware on Linux from IBM focuses on three capabilities: communication and collaboration, business process integration and information integration.

The benefits you gain with Linux-based Integration Solutions from IBM are considerable. You can improve communication and collaboration both within your enterprise and with suppliers and vendors. You can rapidly modify your business processes and leverage your current infrastructure. And you can ensure seamless information flow by responding in real time to the most relevant business information.

Of course, integration is what Linux is all about. Providing a common and open-standards-based platform for software integration across a heterogeneous hardware environment, Linux runs alongside your current operating system, integrating new and existing data and applications.

Infrastructure Management Solutions: Simplify, simplify

You want to make sure you're getting the best value out of your IT infrastructure. Sure, dynamically configured and managed environments are a worthy goal. But without the right tools to manage and automate system configurations and operations, you may find yourself awash in complexity.

That's why there are Infrastructure Management Solutions from IBM. They link different systems together and simplify your underlying IT infrastructure. That creates an environment where solutions and customer value can be provided at lower cost and also can be dynamically changed based on your business needs.

Regione Lazio, a regional government on the outskirts of Rome, Italy, wanted to provide better service to its citizens by evolving its online communications. The goal: Evolve from its static Web site to a dynamic portal where citizens could interact with government agencies and services.

Building a portal with Java™ applications running atop IBM WebSphere® and IBM DB2® software, Lazio hosted its new site on an IBM zSeries® server running multiple copies of Linux. Now its citizens get faster service and share resources more easily—all with a low-cost government solution.

A core component of Infrastructure Management is the automation of functions such as security, operations management, failure prevention and failure recovery. Automation enables your IT engine to provide ample power to handle peak demands without requiring full power 24x7.

The Linux platform itself is adept at fostering innovation. A reliable, robust and secure operating system, it provides high availability through failover clustering. And since it can easily be managed remotely, Linux is well-suited to distributed computing.

The closer you look at the IBM middleware portfolio, the more you'll find a tight integration with the Linux environment. IBM DB2, WebSphere, Lotus®, Tivoli® and Rational® products are available on Linux.

With this software on Linux, IBM provides an open and comprehensive platform so you can easily integrate, develop, deploy and manage applications across heterogeneous server environments. That can result in lower costs and higher performance.

IBM DB2 Information Management

Linux has become a major platform for database and application servers. IBM DB2 Universal Database™ for Linux is a robust, easy-to-manage database that can offer high performance, complementing the stability and reliability of Linux—all ingredients for e-business success. In fact, DB2 for Linux, the most scalable object-relational database on the market, was one of the first major IBM products available on Linux. And it continues to be a leader in the category.

The IBM DB2 advantage is simple: pure power at a lower cost than any other e-business-ready Linux database on the market. With DB2, you can access, manage and analyze all forms of information across the enterprise and on all major platforms: Windows®, UNIX® and Linux.

During the heat of the action at the US Open tennis event in New York, Web-based fans, TV networks, even the event's own video scoreboard require up-to-the-minute scoring information. The central scoring system, using IBM DB2 for Linux, enables access to current information on demand by taking staff-recorded data and automatically tabulating, processing and publishing it in real time.

The preferred software platform for thousands of business applications today, IBM DB2 lets you build your own e-business applications that exploit open standards. And DB2-based applications need to be written only once, then simply recompiled for deployment anywhere—so your investment in application code and employee skills remains secure. From pervasive devices running Linux and IBM DB2 EveryPlace, to supercomputing Linux clusters, to enterprise Linux servers, IBM DB2 is the most scalable object-relational database on the market.

IBM WebSphere

IBM WebSphere software provides the leading application infrastructure for on demand business. Offering a complete range of business integration capabilities, it lets you connect the right people with the right information to:

- *Improve business responsiveness*
- *Model business functions*
- *Transform processes, applications and data*
- *Integrate islands of processes, applications and information*
- *Access resources anytime and anywhere*
- *Collaborate with colleagues using personalized processes, applications and information*
- *Manage performance against business objectives*
- *Accelerate implementation of intelligent processes*

IBM WebSphere business integration capabilities are supported by a reliable, high-performance, secure application infrastructure. You can adapt flexibly and efficiently to changing business priorities by enabling:

- *The key elements of a service-oriented architecture*
- *Simple, integrated development*
- *Secure and scalable deployment*

Customers are demanding software that is easier to buy, use and manage. IBM Software Solution for On Demand Workplace offers the industry's most powerful collaboration and portal software in one package. This solution provides one easy price, simplified purchase, deployment and management, and unified and simplified access to people, business processes and applications across boundaries. It delivers a cost-effective way to combine the collaborative strengths of IBM Lotus Workplace with the integration power of IBM WebSphere Portal Enable. You can integrate your business processes and applications, send e-mails, take training courses, exchange instant messages, hold spontaneous or planned Web conferences and manage Web content—all from one common interface.

Highly scalable, the IBM Software Solution for On Demand Workplace is based on J2EE open standards and supports multiple operating systems and hardware platforms out of the box. That means you can extend collaborative capabilities across and beyond your organization while taking full advantage of existing IT investments.

IBM Lotus Workplace, the next-generation technology built in Java, is at home on Linux clients and servers. Built on IBM WebSphere and IBM DB2, the IBM Workplace server uses the IBM WebSphere Portal engine to deliver an integrated workplace for collaboration. IBM Lotus Domino is part of the IBM Workplace family, too: It can be used alongside or instead of the IBM DB2 and IBM WebSphere e-mail and group calendar in IBM Workplace; with IBM Lotus Domino, applications can be integrated as portlets.

IBM WebSphere software's proven technology, standards leadership and unmatched expertise enable you to innovate while mitigating risks and accelerating time to value.

IBM Lotus
Successful companies recognize that brainpower is one of their most valuable assets. IBM Lotus offers Web-enabled solutions that foster smart collaboration among your employees, customers, partners and suppliers.

IBM Lotus Domino® has supported Linux for more than five years and now runs on Intel® and zSeries Linux. Combining IBM Lotus Domino and Linux attacks total cost of ownership for enterprise-grade e-mail and group scheduling—especially compared with Microsoft® Exchange® on Windows. IBM Lotus Domino still supports IBM Lotus Notes® clients and Microsoft Outlook®. And IBM Lotus Domino Version 6.5, the award-winning Web Access client, is available for Mozilla on Linux.

The rich client technology of IBM Workplace adds another layer of value to your Linux collaboration. Because it is locally installed code, IBM Lotus Workplace client technology delivers the benefits of a standard client/server business application with local editors and execution as well as a personal database for secure content storage and management. Yet it's centrally provisioned and managed so it delivers hosted-style economics.

IBM Tivoli

Markets change. Business models evolve. And e-business infrastructures must adapt. With IBM Tivoli's seamlessly integrated and flexible systems management solutions, you can use your current technology to prepare your business for the future. IBM Tivoli is the optimal blend of complete e-business infrastructure management with cross-platform management capabilities. So you can integrate the systems management of Linux systems with those of your existing infrastructure.

IBM Tivoli for Linux solutions support several key management functions. For example:

- *IBM Tivoli Distributed Monitoring and IBM Tivoli Enterprise Console® provide performance and availability solutions.*
- *IBM Tivoli Inventory and IBM Tivoli Configuration Manager offer configuration and operations management.*
- *IBM Tivoli User Administration helps ensure security for Linux applications.*
- *IBM Tivoli Storage Manager and IBM Tivoli SANergy provide data storage management, backup and recovery of Linux systems.*

IBM Rational

The IBM Rational portfolio forms the core of software development applications from IBM. It includes tools for:

- *Requirements and analysis,* including requirements management, business modeling and data modeling tools
- *Design and construction,* such as IBM WebSphere Studio IDE and other tools for design modeling, component testing and run-time analysis
- *Automated testing,* to run quality assurance on software products, as well as test for code consistency, quality, functionality and performance
- *Software configuration management,* including change and version control, asset management and defect tracking
- *Lifecycle management,* including process guidance and integrated tool support to measure progress

For Linux environments, IBM Rational support focuses on two key areas: fostering the development of Linux applications through IDE support and reducing the total cost of software ownership by providing Linux-based platform support for managing software assets while supporting a range of desktop development environments.

Our ongoing commitment to Linux

Actively working with the open source community, IBM brings relevant technologies and experience to help enhance Linux, define standards and extend Linux to support enterprise applications. This commitment is evidenced by the participation of IBM in three main venues:

- *IBM Development Porting Centers and Competency Centers for Linux* give ISVs and other application developers the opportunity to test their Linux-based applications using IBM middleware and servers in simulated real-world environments with the help of onsite Linux consultants.
- *The Linux Technology Center* houses a worldwide development team using enterprise-class IBM programming resources and software technology as part of the open source community to help advance the functionality of Linux across many different environments.
- *The Open Source Development Lab*, founded by IBM and other leading IT vendors, is the industry's first independent, nonprofit lab for developers adding enterprise capabilities to Linux.

Take a fast path to on demand business

IBM software on Linux provides an open and comprehensive platform that enables integration, development, deployment and management of applications across heterogeneous server environments. Backed by 24x7, enterprise-level support and expertise, as well as a steadfast commitment to Linux, IBM is better positioned than any other company to help you take advantage of Linux and on demand business.

With the Linux operating system and IBM middleware working together, you can implement an on demand operating environment, either all at once or in an evolutionary manner. Whichever you choose, you can:

- *Build on open standards such as Linux and Java*
- *Deliver integration of people, processes and information*
- *Enable automation of management*
- *Manage and optimize storage devices, servers, grids and networks*
- *Add industry middleware, applications and know-how to deliver industry solutions*

The end result is that your business can take full advantage of opportunities as they present themselves. And that can keep you apace with, or a step ahead of, the competition—and take a fast path to on demand business.

For more information
To learn more about how IBM middleware solutions on Linux can help you take a fast path to on demand business, visit **ibm.com**/software/linux.

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