

IBM DB2 and Power Systems

Optimized and tuned for insight



1

Introduction

Build systems that can handle the information explosion

2

IBM DB2

Deliver critical information while cutting costs

3

IBM Power Systems

Create a foundation of performance, efficiency and reliability

4

The combined solution

DB2 and Power Systems: Optimized infrastructure

5

Find out more

Learn how to get the most from your valuable data assets

Introduction



Our planet is becoming smarter.

And as intelligence is infused into everything around us, your company needs new tools and infrastructures that can help you capitalize on the possibilities this new world brings.

However, using the data within your systems to build a competitive advantage isn't always as easy as it sounds. To handle the information explosion, you need powerful database software—and equally powerful servers that can handle the load. Business can be unpredictable, which

means your IT staff needs to be able to add capacity quickly and transparently without changes to your applications. And because the marketplace is open for business 24x7 in today's globalized economy, business continuity is a primary concern.

Managing the information life cycle effectively is integral to keeping your company at the top of its game. The cost of managing data—acquiring it, cleansing it, using it to create actionable business insights and finally retiring it when it becomes redundant—has only grown as IT infrastructures have become more complex.

Companies need to redefine their IT architecture to meet these challenges. At IBM, we call this “performance redefined.”

IBM helps organizations tackle those challenges through integrated, optimized solutions that are designed for data, tuned for the task and managed in the cloud. The **IBM® DB2® platform** provides a comprehensive foundation that delivers scalability and data volume for any workload and data format. Leading-edge database innovations help provide breakthrough performance and time-to-value. IBM also offers one of the industry's broadest and deepest integrated data management portfolios, which means that you can manage data across a diverse set of platforms and business application needs.





IBM Power Systems™ can help you get the most from your IT assets, so you can deliver computing resources on demand to end users through a cost-competitive infrastructure with around-the-clock availability. This industry-leading UNIX® platform from IBM helps you manage servers more easily, align IT and business operations more closely, and reduce energy costs while improving processing flexibility. Maybe that's why IBM has completed more than 3,900 competitive displacements to Power Systems in the past five years.¹

Using DB2 and Power Systems together compounds their individual benefits to deliver even more value. By optimizing and integrating the hardware and software, IBM drives cost and operational efficiencies that support flexible IT operations and help to maximize performance.

This e-book will show how DB2 and Power Systems create synergies to help you support changing workloads, cost-effective energy efficiency and business continuity—and in turn, capitalize on opportunities to make your business more competitive.

IBM DB2

Reliance cuts database TCO in half with IBM DB2

Reliance Life Insurance Company decreased total cost of ownership by 50 percent and increased application uptime from 80 to 95 percent when it replaced an Oracle/Sun platform with an IBM DB2/Power server platform.

[Read more.](#)

Using information effectively can be the difference between surviving and thriving in business. That's why your choice of database is so important—with the ability to leverage and manage data in a flexible and cost-effective manner, your organization can put itself at the forefront of innovation, delivering information anytime, anywhere, while lowering costs.

DB2 software can help you meet those challenges through industry-leading performance, scalability and reliability. DB2 has been a leader in transactional benchmarks since the mid-1990s. And now, DB2 provides application cluster

transparency through the **DB2 pureScale®** feature to help reduce the risk and cost of meeting changing business demands.

Designed for organizations that run large transactional applications on distributed systems, DB2 delivers exceptional scalability, high availability and easy deployment. Using shared disk storage, it enables a database to continue processing through most planned and unplanned outages. It supports higher transaction rates, helping organizations scale to meet the most demanding business needs while controlling data management costs.

By allowing IT administrators to add extra capacity as the company needs it, DB2 facilitates business continuity without any disruptive application changes. It is transparent to applications and users—so organizations can scale up their processing capacity quickly and with less risk. In addition, because many database administrators (DBAs) play it safe by over-provisioning database capacity, DB2 can eliminate wasted capacity provisioning and help to reduce unnecessary IT expenditures.

DB2 also helps companies cut costs by reducing database space requirements. Compressed data volumes take less time

PLANSEE boosts efficiency and compresses database costs with SAP on DB2

PLANSEE migrated a suite of SAP software to two IBM Power 780 systems leveraging Capacity on Demand and IBM System Storage managed by IBM Tivoli Storage Manager. The company also replaced its existing Oracle database with IBM DB2, cutting database size by 50 percent, decreasing backup times by 50 percent and introducing storage savings of approximately 30 percent. [Read more.](#)

to backup, decreasing network traffic and the amount of time spent administering backup processes. DB2 Deep Compression technology reduces your storage hardware requirements, resulting in reduced power consumption and costs.

DB2 further helps to cut costs by taking care of itself as much as possible. By automating tasks that would otherwise be performed by DBAs—such as memory management, storage allocation and configuration management—DB2 can help to free up your IT staff to focus on more strategic initiatives and deliver a stronger return on investment (ROI).

Good database tools cut costs by making DBA, application developer and other

human resources more productive. Moreover, good tools can help someone with average database skills accomplish the results of an expert. That's why DB2 includes tools like the Configuration Expert, which optimally configures DB2 to its hardware at installation time. Plus, IBM offers an integrated suite of data management solutions that make it easy for analysts, architects, developers and administrators to collaborate when working with data in DB2.

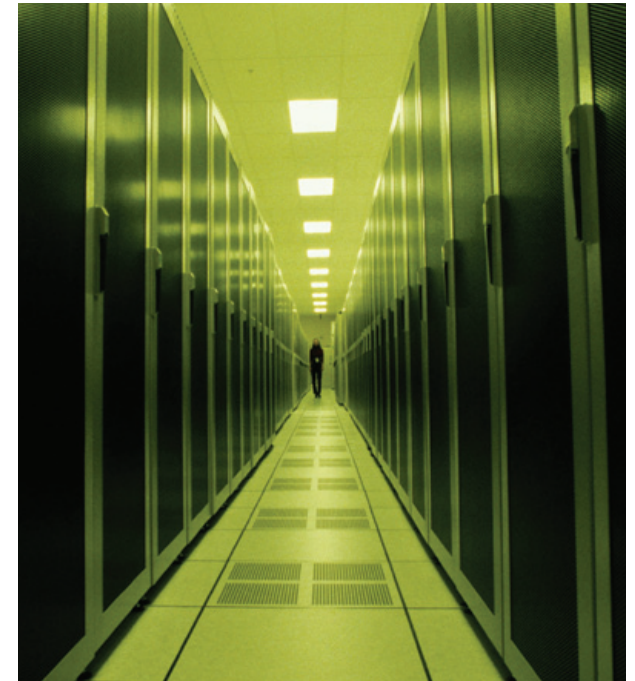


IBM Power Systems

Using information to build a smarter business demands a high-performance, highly reliable foundation.

Everyone knows what “performance” meant for IT in the past: speeds and feeds. Built on the foundation of **IBM POWER7®** processor technology, Power Systems servers and blades continue to excel and extend industry leadership in these traditional benchmarks.

Today's definition of IT performance means delivering services faster, with higher quality and with superior economics. The emerging measures of IT performance are focused on agility and the ability to help the business capitalize on new opportunities. IT is measured on how well it provides an infrastructure that can handle rapid growth and manage business risk while meeting higher required service levels. And of course, new services must be delivered within tighter budget constraints—with IT expected to do more with less and find the lowest-cost solutions possible.



When businesses need high levels of performance and steady innovation, they look to Power Systems. The predictable delivery of innovation through the IBM POWER® processor roadmap and the IBM commitment to investment in IBM AIX®, IBM i and Linux® operating systems on POWER—with more than 15,000 supported applications—provides clients with the confidence that Power Systems are a solid choice, both now and for the future.

Power Systems feature design innovations that make them an outstanding platform for transaction-heavy database environments.

Businesses around the world are moving to a more dynamic infrastructure with Power Systems so they can:

- Reduce system administration costs
- Reduce data center energy costs
- Reduce need for weekend overtime hours
- Reduce risk of system downtime in the event of a disaster
- Improve service and data center management

For more than 10 years, Power Systems has also been fine-tuning highly integrated systems designed from the ground up for industrial-strength virtualization. **IBM PowerVM™** features help to reduce capital expenses and improve TCO by rebalancing workload demands automatically to maintain 60 to 80 percent processor utilization. Common virtualization abilities across all Power Systems help to streamline administration. Virtualization of not only processors but memory and I/O help enable dynamic movement of partitions and applications between physical systems.

The combined solution

IBM builds systems and systems software together, from the ground up. This integrated approach to the design, development and testing of DB2 and Power Systems helps develop the resiliency required for your IT critical infrastructures. All POWER-based server models include innovative reliability, availability and serviceability features that help you avoid unplanned downtime. And with Capacity on Demand, Hot-Node Add and Hot-Memory Add features, Power Systems enterprise servers help you keep your most important applications available, even as you add capacity to handle business growth on your largest servers.

Together, DB2 and Power Systems create a powerful solution designed to allow clients to connect anywhere and see a single database. Extreme capacity with up to 128 nodes, application transparency and smooth scalability make growing your business a breeze. The benefits of providing your business with uninterrupted data access are clear: More uptime means better bottom-line results and better service. What's more, DB2 pureScale on Power Systems leverages the cluster caching facility function to deliver near-continuous availability and exceptional horizontal scalability.



The combination of DB2 and Power Systems can also provide an outstanding foundation for the **IBM Smart Analytics System**—an integrated analytics system that deploys quickly and delivers value quickly. The IBM Smart Analytics System is a modular, scalable solution that combines IBM software, servers and storage. Deeply integrated and finely tuned, the system is based on **IBM InfoSphere® Warehouse** and powered by DB2, Power Systems and **IBM System Storage®**. It quickly delivers the insight you need to anticipate business conditions, capture new opportunities, avoid risks and ultimately transform the way you operate to achieve greater profitability and competitive advantage.

The Hartmann Group consolidates global SAP applications to just two IBM Power 750 servers

With the help of IBM, the Hartmann Group migrated to the latest releases of SAP ERP applications, and consolidated multiple servers to IBM Power servers featuring IBM POWER7 processor technology. Using IBM virtualization technologies embedded in the POWER7 architecture and exploited by IBM AIX, the Hartmann Group has created a high-performance, flexible infrastructure solution capable of handling increased workload, meeting business service-level agreements and reducing operational costs. [Read more.](#)

For businesses with multiple database servers not using full hardware capacity, the cost-saving benefits of virtualization on Power Systems can include server consolidation, space savings and reduced power and cooling expenditures.

A simplified IT infrastructure can also minimize operational resources required. DB2 lets businesses enjoy those savings with flexible licensing terms that allow all aspects of DB2 to be deployed in a virtualized environment.

Find out more: Manage your enterprise data effectively

Your data is one of the most valuable assets in your organization. With IBM hardware and software that is developed together and optimized to help you get the most from key information, your company can focus on building a smarter planet—and less on the details of your IT infrastructure.

Since 2000, IBM has focused on increasing the technology integration between DB2 and the POWER architecture.

This continuous path of innovation has led to differentiated performance and function, outstanding scalability, enhanced reliability, greatly improved simplicity, and integrated solutions, such as the IBM Smart Analytics System. The next generation of IBM POWER7 hardware builds on this joint value with substantial new innovations, significant throughput increases and greater efficiency to reduce operational costs.

To learn more about how the synergies between IBM DB2 and Power Systems can help your organization manage information effectively, please contact your IBM representative, or visit

- ibm.com/db2
- ibm.com/powersystems
- ibm.com/db2/tools
- ibm.com/breakfreetoibm



© Copyright IBM Corporation 2011

IBM Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
October 2011
All Rights Reserved

IBM, the IBM logo, ibm.com, AIX, DB2, InfoSphere, POWER, POWER7, PowerHA, Power Systems, PowerVM and pureScale are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product and service names may be trademarks or service marks of others.

1 ibm.com/systems/power/migratetoibm/hpmigration/index.html



Please Recycle
