Six reasons to choose IBM DB2 for SAP applications

Supported by the real-world experience of IBM clients
Six reasons to choose IBM DB2 for SAP

1. Reducing total cost of ownership
2. Accelerating business insights
3. Making migrations easier
4. Enabling cloud & hybrid strategies
5. Leveraging a strong ecosystem
6. Ongoing investments
Reducing total cost of ownership

IBM® DB2® has a long history of providing a platform that can lower the total cost of ownership for clients.

Single platform
DB2 acts as a general-purpose platform that is optimized for all types of SAP application workloads – from high-volume transactional applications through to highly complex analytical processes. This means that DB2 is the only database that SAP clients will need – avoiding the costs of licensing, supporting and maintaining multiple single-purpose platforms.

Unique features
The cost savings are also partly driven by the unique features of DB2. For example, BLU Acceleration® should not only be seen as a way to dramatically increase query speed; it can also be used to maintain the same performance on a smaller number of processor cores – reducing hardware costs. Similarly, DB2 compression features can reduce storage requirements while lifting performance.

These unique features of DB2 are all included in the DB2 license for SAP, so clients can use them at no additional cost.

Extending infrastructure investments
By boosting SAP application performance while lowering server and storage requirements, DB2 can support companies in extending the value of their existing hardware investments.

This can also lead to a reduction in the frequency of infrastructure refreshes, and avoid the need to purchase additional appliances such as SAP Business Warehouse Accelerator.

Streamlining operations
DB2 can also support more efficient database administration through its integration with SAP administration tools. This can reduce personnel costs by allowing database administrators to focus on more value-adding work.

Finally, the release and support cycles for DB2 for SAP solutions are aligned with SAP’s release cycles. This means that both upgrades can be completed in a single project, helping to reduce cost and risk.
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About the company
Finanz Informatik Technologie Service (FI-TS) provides IT services to some of Germany’s leading banks, building societies, finance, and insurance companies. Headquartered in Haar, the company operates a total of five offices across the country, employs more than 1,000 people and reports annual revenues of EUR330 million.

Business challenge
Many clients running SAP applications at FI-TS were struggling to control database licensing costs. How could FI-TS solve its clients’ cost challenges?

Transformation
FI-TS and IBM Business Partner Empirius migrated SAP solutions to IBM DB2 for Linux, UNIX and Windows, taking advantage of advanced automation, ease of management and cost-effective licensing.

Results
• EUR350,000 annual cost savings
• 50% smaller data volumes for SAP Bank Analyzer results in lower storage costs
• 93% faster system copying saves more than 400 days in system administration

“Running SAP systems on IBM DB2 works well – both for us and for our clients. IBM’s licensing model is very appealing and many clients have asked us to switch their systems to DB2, seeing a reduction in licensing costs as a result.”

– Michael Klüsener, Head of SAP Services, Finanz Informatik Technologie Service

Finanz Informatik Technologie Service
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BLANC & FISCHER Family Holding

About the company
The three subsidiaries, E.G.O-Group, BLANCO Group and BLANCO Professional Group, here summarized as BLANC & FISCHER Family Holding, are manufacturers of electronics and industrial components, kitchen sinks and medical facilities, employing 8,000 people, and achieving revenues of EUR1.1 billion.

Business challenge
Subgroups of BLANC & FISCHER Family Holding wanted to increase the efficiency of their central services, cut costs, remain competitive and help their independent business units to flourish.

Transformation
BLANC & FISCHER Family Holding consolidated its mission-critical SAP ERP and SAP Business Warehouse applications onto IBM Power® System E870 servers with IBM AIX® and IBM DB2 with BLU Acceleration.

Results
- 40% lower middleware license cost thanks to 40% faster per-core performance
- 20x faster business insights improve agility and customer service
- 2 hours saved in administration workload per week, leading to reduced operating costs

“The simplified systems landscape is more agile and contributes to lower costs and greater efficiency, matching our corporate business objectives for enabling growth.”

– Manfred Leistner, CTO, Blanc und Fischer IT Services, a subgroup of BLANC & FISCHER Family Holding

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Accelerating business insights

DB2 offers clients the flexibility of using both row-based and column-based data schemas, depending on the workload, all within the same database.

Columnar table structures are ideal for analytics workloads, and DB2 harnesses BLU Acceleration technology to make analytical queries fast, simple and agile.

**Increasing speed**

BLU Acceleration is fast because it uses dynamic in-memory processing and efficiently compresses the data within columnar tables.

The data is kept compressed while data manipulation is executed, and DB2 utilizes a data skipping technique that only loads into memory the column data that is required for processing.

The technology utilizes single instruction, multiple data (SIMD) capabilities and is cache-coherency-aware, enabling it to make more efficient use of CPU cores. This can make it hundreds or even thousands of times faster than traditional row-based databases for analytics.

**Embracing simplicity**

The simplicity of BLU Acceleration is its second key tenet. There is no building of aggregates and indexes, and no tuning is required. It is just a matter of loading the data and starting the query.

**Enhancing agility**

Finally, BLU Acceleration is agile. It runs on any x86 or IBM Power server, large or small, and automatically adapts to the resources that are available. It can be deployed on-premises, in the cloud, or in hybrid environments.
Balluff GmbH

About the company

Family-owned Balluff GmbH, headquartered in Neuhausen, Germany, is a world-leading manufacturer of sensor solutions, employing around 2,750 people in 50 countries. The company offers sophisticated technology, cutting-edge electronics products, application-specific customer solutions and highly trained service staff.

Business challenge

Over a period of rapid business growth, growing data volumes created practical difficulties; sales and business development reports were taking longer to produce, and processing tasks normally scheduled to run overnight were almost running into business hours.

Transformation

Balluff’s IT team was not interested in incremental changes; it wanted game-changing improvements for its private cloud environment in information delivery across its transactional and analytics applications. Upgrading its SAP applications and deploying DB2 with BLU acceleration was the answer.

Results

- 5x faster access to business documents
- 7x acceleration in batch operations
- 30% reduction in backup times
- 98% reduction in complex reporting cycles

“IBM DB2 with BLU Acceleration has helped Balluff transform the speed and reliability of its enterprise information delivery, giving executives fast insight into critical information and helping us seize new business opportunities.”

– Bernhard Herzog, Team Manager Information Technology SAP, Balluff GmbH

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Knorr-Bremse

About the company
The Knorr-Bremse Group is a leading manufacturer of braking systems for rail and commercial vehicles. Headquartered in Munich, Germany, Knorr-Bremse operates more than 100 production sites in 29 countries around the world and employs more than 23,900 people. The company achieved sales revenues of EUR5.2 billion (USD5.8 billion) in 2014.

Business challenge
To grow profits and productivity, Knorr-Bremse wanted to integrate acquired companies into its SAP application landscape, but data growth was slowing analytics capabilities and pushing up costs.

Transformation
Knorr-Bremse migrated to IBM DB2 with BLU Acceleration to run its growing SAP Business Warehouse faster with in-memory technology without the need to invest in new infrastructure or training.

Results
- **55x** faster insights enable real-time response to changing markets
- **2.4x** quicker analytics in SAP Strategic Enterprise Management
- **64%** additional data compression reduces storage costs

“One of the main advantages of IBM DB2 with BLU Acceleration is that we can roll it out step by step online and without downtime, ensuring operational processes are not disrupted.”

– Marc Motejat, Director IT Technology & Infrastructure, Knorr-Bremse
Ekornes

About the company
Ekornes, the largest furniture manufacturer in the Nordic region, produces and markets a range of well-known, high-quality brands, including Stressless – one of the world’s most famous furniture lines. Ekornes employs over 2,300 people and achieves annual profits of NOK160.5 million (USD20.1 million).

Business challenge
To help grow revenues, particularly of underperforming brands, Ekornes wanted to enable key staff to access enterprise-wide sales figures, but sheer volume of data presented significant challenges.

Transformation
Ekornes upgraded to the latest IBM DB2 with BLU Acceleration database to accelerate reporting capabilities and give sales and marketing managers rapid access to crucial figures.

Results
- **Empowers** employees to make timely, data-driven decisions and increase sales
- **10x** faster business insight by moving to column-organized database tables
- **5 hours** per week saved on sales reporting

“With IBM DB2 with BLU Acceleration, employees can get answers to sales-related questions flexibly, as and when they need them.”

– Tor Ervland, System and Application Manager, Ekornes
YAZAKI Europe Limited

About the company
YAZAKI is one of the world’s leading automotive suppliers in Electrical and Electronic Distribution Systems (EEDS). Headquartered in Japan, the company has major operations across Europe with a workforce of more than 40,000 employees in 51 locations and 20 countries, and is an important partner for the automotive industry.

Business challenge
To meet the automotive industry’s demand for same-day delivery, YAZAKI Europe needs extremely efficient logistics – which means eliminating delays and manual processing.

Transformation
YAZAKI Europe worked with IBM, IBM Business Partner All for One Steeb, and SAP to optimize its logistics processes based on IBM DB2 databases for best performance with SAP software, even under high degree of utilization.

Results
- Faster insights into business performance
- Ensures timely delivery and avoids costly overtime and logistics expenses
- 2x acceleration in end-of-month consolidation processes

“Our project to streamline logistics was the perfect opportunity for us to start using the innovative performance features of IBM DB2 with BLU Acceleration.”

– Jürgen Laudien, Manager Infrastructure Europe, YAZAKI Europe

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Making migrations easier

By moving from other databases to IBM DB2, clients are able to take advantage of the full benefits of their SAP implementation. This can help them to accelerate time to value and become business-ready for the future challenges of the real-time economy.

Over a decade ago, IBM created a migration factory in order to make the transition from other databases to DB2 as smooth, fast, and secure as possible.

With years of SAP migration experience, IBM’s team of SAP-certified migration personnel have proven expertise in migrating tens of thousands of SAP instances to DB2 successfully, regardless of where the solution is deployed, whether on-premises, in the cloud, or both.

The migration factory team understands that when SAP clients are considering moving to DB2, their number-one concern is risk mitigation.

That’s why migration projects begin with a rapid assessment, conducted by SAP-certified migration professionals. The team is dedicated to helping clients achieve a smooth, seamless migration to a well-designed target environment, and provides support from the initial planning phases through the implementation to post-go-live support.

As a result, the service is designed to give clients a rapid, cost-effective, low-risk migration, with relatively little disruption to their business.

“We have successfully executed hundreds of SAP migration projects to DB2, and we are delivering as we speak. Most importantly we have never failed in a migration project!”

– Alexander Seelert, Principal & Senior Managing Consultant for SAP Database Solutions, IBM
Six reasons to choose IBM DB2 for SAP

Lonza Group

About the company
Headquartered in Basel, Switzerland, Lonza Group is a leading supplier to the pharmaceuticals, healthcare and life science industries. Lonza operates 45 major sites around the world, employs 11,800 people, and in 2012 achieved sales of CHF3.925 billion.

Business challenge
Global life sciences company Lonza constantly seeks to increase its business efficiency, looking for ways to reduce costs while increasing service capacity. Lonza must also comply with regulatory obligations, reporting both externally and internally.

Transformation
Lonza highlighted database costs for its SAP applications as a critical issue, and chose to migrate from Oracle software to IBM DB2 for Linux, UNIX, and Windows, assisted by IBM Global Technology Services®.

Results
• 10% improvement in application performance
• 65% reduction in software license costs
• 50% reduction in disk space requirements

Reduces database administration workload

“IBM DB2 offers a range of automation capabilities and very close integration with SAP software ... the migration reduced license costs and simplified database administration substantially.”
– Fredy Zenklusen, SAP Basis Manager, Lonza Group

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Leading chemicals manufacturer

About the company

This leading chemicals manufacturer produces and supplies paints, coatings and specialty chemicals to a wide range of industries and consumers around the world.

Business challenge

This leading chemicals manufacturer needs deep visibility into operations to drive manufacturing excellence—how could it cut through complexity to boost business performance and reduce waste?

Transformation

The manufacturer standardized and simplified its processes by moving to an integrated SAP ERP platform. By migrating its databases from Microsoft SQL Server to IBM DB2, the company has built a platform that can scale efficiently to support several thousand additional users.

Results

- 50% lower total cost of ownership
- 10x faster report generation enables rapid insight into operations
- 44% faster response times streamline workflows

“The total migration per business unit was completed in just 25 hours. By ensuring a smooth transition, we were able to ensure that there was almost zero impact on business.”

– Spokesperson, Leading chemicals manufacturer
As the speed of business increases, enterprises are increasingly looking to boost flexibility and make optimal use of IT budgets by moving SAP applications into the cloud.

And even for organizations that are not ready to move to a public cloud infrastructure, the flexibility of a private or hybrid cloud environment for provisioning and managing new SAP environments can be attractive.

To meet these needs, DB2 offers a range of compelling public, private and hybrid cloud options for SAP.

**IBM Bluemix IaaS**

In addition to its fully managed IBM Cloud for SAP Applications service, IBM also now offers infrastructure-as-a-service (IaaS) for SAP NetWeaver applications on IBM Bluemix® bare metal servers – giving clients the flexibility to build test, development and sandbox environments in the cloud much more easily. Bluemix makes it simple to connect SAP applications to bare-metal DB2 servers, or to DB2 on Cloud.

**Private and hybrid clouds**

For clients who prefer to keep all or part of their SAP infrastructure on-premises, DB2 makes it easy to take a private or hybrid cloud approach. Advanced support for virtualization and close integration with SAP administration tools such as SAP Solution Manager and SAP DBA Cockpit make it easy to configure and spin up new DB2 instances when the business needs them.

**Native encryption**

To address security and data privacy concerns, either on-premises or in the cloud, DB2 provides native encryption that helps to protect business data at rest.

With native encryption enabled, DB2 automatically encrypts and decrypts data before it is read from or written to disk, so production data, backup images, log files and database dumps are unreadable even if the physical hardware is stolen.

The latest versions of DB2 also provide enterprise key management, which makes it easy for administrators to manage encryption across multiple databases from a single point of control.
Hirschmann Automotive

About the company
Hirschmann Automotive specializes in supplying parts such as connector systems, sensors and cables to major vehicle manufacturers across the world. Boasting double-digit annual revenue growth, the company is headquartered in Rankweil, Austria, employs around 4,500 people and has operations across the world.

Business challenge
Hirschmann Automotive needs to operate 24/7 to satisfy the demands of just-in-time manufacturing – yet existing systems suffered outages and lacked the required scalability and performance.

Transformation
Hirschmann Automotive deployed an on-premises cloud environment built on cutting-edge IBM POWER8® servers, IBM DB2 databases and virtualized IBM storage to drive its central SAP ERP application.

Results
- 50% faster backups enable better preparation for the threat of disaster
- 2-3x quicker capacity planning helps respond faster to short-notice customer orders
- 50% reduction in materials planning times helps to enable smoother production processes

“IBM has provided us with a powerful on-premises cloud platform that supports our mission-critical SAP ERP applications and will help us meet our future goals, too.”

– Bernhard Bösch, Team Leader Network and Data Center, Hirschmann Automotive
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Business challenge

Balluff wanted to streamline the management of its SAP infrastructure by creating an architecture that would boost flexibility and enable faster provisioning.

Transformation

Balluff migrated its SAP applications and DB2 database to a private cloud environment on IBM Power Systems™ servers, using IBM Business Partner FRITZ & MACZIOL’s Dynamic Power Cloud Manager tool for ease of management.

Results

- 85% reduction in data volumes with DB2 compression helps boost agility in provisioning and managing private cloud environments
- Faster deployment of sandboxes and test environments
- Reduced administrative overhead for infrastructure management

“The private cloud platform, based on IBM technology, enables us to set up new systems much more quickly than before, improving our business agility and making sure that we can react quickly to new requirements.”

– Bernhard Herzog, Team Manager Information Technology SAP, Balluff GmbH
Leveraging a strong ecosystem

Exploring a network of partner solutions

IBM and SAP are not the only organizations investing in DB2 – there is also a vibrant ecosystem of partners that develop innovative solutions built on DB2 technology.

These solutions allow clients to leverage partners’ domain expertise in dozens of key industries and technical areas, extending core SAP capabilities to handle specific business needs.

For example, Every Angle provides analytics solutions that simplify development and put power in the hands of business users. Meanwhile, PBS Software specializes in information lifecycle management, harnessing DB2 for big data management.
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Self-service operational and transactional reporting solutions from Every Angle are different from other reporting tools. Typically, clients can go live in three to five days, and start providing end-users with real self-service insights.

With easily understandable business-aligned terminology and enablement, Every Angle solutions can help clients avoid the need to develop, implement, maintain and manage customized reports. The aim is to avoid the need for complex data curation, and help users get the results that they are looking for even if they do not have deep SAP data structure knowledge.

In this respect, the Every Angle solution closely aligns with the design principles of IBM DB2 with BLU Acceleration for SAP. Speed to value, simplicity, throughput and enhanced business insight are the hallmarks that both solutions are designed to achieve.

Most importantly, both DB2 and Every Angle’s solutions can be deployed in weeks, or even days. They can be installed either on-premises or in a hosted environment without the need for costly, risky or disruptive database technology migrations.

Finally they fully leverage clients’ existing IT skills to accelerate adoption and reduce administration and support costs.

“Every Angle helps SAP clients harness the power of DB2 with BLU Acceleration to deploy self-service transactional and operational reporting in days – minimizing complexity, cost and risk.”

– Fred Hermans, CEO, Every Angle
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PBS Software GmbH

For more than 25 years, PBS Software has been a trusted provider of add-on solutions to help clients improve their SAP systems in the areas of SAP Information Lifecycle Management, data archiving, nearline storage and compliant storage.

With PBS solutions, users have complete and seamless access to their SAP application data – not only “hot” data, but also rarely used and even archived data.

The innovative column-based features of IBM DB2 with BLU Acceleration enable PBS Software to provide its customers with excellent data retrieval performance and huge data compression. This has become an outstanding benefit, especially for PBS state-of-the-art nearline storage solutions and customers with vast amounts of application data.

“The cooperation with IBM has boosted our data retrieval features excellently. Our customers can benefit from cutting-edge technology to speed their analysis needs for all kind of SAP data. Thanks to DB2 BLU, big data in SAP has lost its fear.”

– Günther Reichling, Founder and Managing Director, PBS Software GmbH

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Ongoing investments, part 1

The road ahead

IBM and SAP remain committed to protecting their customers' investments. We will continue to deliver database innovations for SAP workloads such as SAP Business Suite and SAP Business Warehouse, without disruption.

DB2 V11.1

DB2 V11.1 achieved certification for use by SAP customers in mid 2017. Key new features include comprehensive enterprise security, simplified deployment, better usability, a streamlined upgrade process, enhancements to very large databases, and vast improvements to BLU Acceleration.

DB2 V11.1 extends native encryption to the enterprise level, using the Key Management Interoperability Protocol (KMIP), the industry standard for key management.

DB2 BLU Acceleration also now supports large scale-out environments, enabling it to be used in the largest SAP Business Warehouse environments.

For DB2 pureScale®, there has been a focus on ease of deployment and operation, helping SAP customers protect mission-critical systems from outages, and offering continuous availability. Combined with the high availability and disaster recovery (HADR) feature, pureScale clusters can now span large distances.

Hybrid Transactional Analytical Processing (HTAP)

The emergence of HTAP enables analytics and transactions to run in the same database, as opposed to being architectured separately. It can help to redesign the way business processes are designed and executed, because advanced real-time analytics becomes an integral part of the transactional business process itself, rather than a separate activity.

A key imperative when creating an integrated system for transaction and analytics processing is: “Don’t move the data!” – move analytics processing to the data instead. The DB2 roadmap aims to support this vision.

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Ongoing investments, part 2

Core Data Services

To help accelerate applications, SAP continues to enable and develop Core Data Services (CDS) as a database abstraction layer.

Complex business objects and functions (for example, currency and unit conversion) are “pushed down” to be implemented at the database level, instead of at the application level. IBM continues to develop, optimize and align DB2 capabilities to support CDS functionality.

For example, important CDS features like currency conversion, date and time conversion, and optimized processing of complex SQL queries, have already been optimized in DB2.

In practical terms, this means that CDS can be used to align SAP ABAP code re-engineering and optimization efforts with DB2 in the near- and mid-term IT investment and planning horizon.
Six reasons to choose IBM DB2 for SAP

Ongoing investments, part 3

**PureScale**

IBM DB2 pureScale is a clustering technology that provides continuous availability and transparent application scaling for both online transaction processing (OLTP) and online analytical processing (OLAP) workloads. SAP and IBM have been closely cooperating to provide the benefits of this new exciting technology for SAP installations.

pureScale clusters also make high availability even easier to achieve: the active-active configuration enables seamless continuity even if a node fails.

Designed for organizations that want to run their SAP applications on distributed systems, pureScale also enables individual workloads to be assigned to specific nodes of the pureScale cluster.

This makes it easy to tune the performance and availability requirements to meet specific service level agreements (SLAs) for each application - an increasingly critical requirement for enterprises that need to support large, complex and mission-critical SAP application landscapes.
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