

Driving Business Outcomes with IBM Power Systems for SAP HANA

Gain the unmatched flexibility,
reliability and performance
of IBM Power Systems
for your SAP HANA workloads



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The time to explore your path to SAP HANA is now



Discover how clients around the world are taking advantage of game-changing advances

Many leaders are already addressing the 2025 deadline to migrate to SAP HANA, and they're asking tough questions: How can I simplify the transition to SAP HANA? What is the right infrastructure to provide superior virtualization and management flexibility? How can I ensure scalability? What is the best choice for faster speed to market to address ever-changing business requirements?

The answers to these questions depend directly on your choice of infrastructure—and your decisions will impact your business for years to come. To get the most from your database, you want to deploy on a platform that will help you overcome challenges and respond quickly to changing demands.

In the past three years, SAP and IBM have helped over 1,400 clients¹ around the world implement SAP HANA on IBM® Power Systems™ servers. Why did they choose IBM Power Systems? As the following success stories show, these clients have discovered three key reasons why IBM Power Systems servers are the smart choice.

- **Flexibility:** As the first platform to support virtualized instances of SAP HANA in production, IBM Power Systems enable customers to run multiple SAP HANA instances on a single server.

- **Resiliency:** Using built-in fault tolerance, redundancy and self-healing capabilities, organizations can maximize SAP HANA availability.
- **Performance:** IBM Power Systems were purpose built for data-intensive workloads such as SAP HANA, resulting in faster and more efficient analysis of business data.

Rapid adoption of SAP HANA on IBM Power Systems

- 0 to 1,400+ clients in 36 months
- 4 of the top 10 Fortune Global 500²
- 30+ cloud service providers/managed service providers³
- SAP Pinnacle Award Winner for Global Infrastructure Partner of the year 2018⁴
- Available in the IBM Cloud™: Winning combination of SAP HANA on IBM Power Systems

Flexibility without compromise



A built-in hypervisor that allows you to do more with your system, plus the agility to grow as needed

IBM Power Systems provide a highly flexible platform with built-in virtualization and elastic capacity on demand, enabling you to grow your database capacity without having to buy and provision a new server. Capable of running up to 16⁵ SAP HANA production virtual machines (VMs) in one system with negligible overhead, IBM Power Systems allow you to consolidate your workloads and reduce your data center footprint, lowering hardware acquisition costs.

You have great flexibility in how you use IBM Power Systems. You can scale up or scale out. You can have a mix of traditional SAP workloads and non-production workloads running in a shared pool, side by side with SAP HANA production workloads. The result: more efficient use of system resources and high utilization.

IBM Power Systems support SAP HANA Tailored Data Center Integration (TDI), enabling you to use the storage and networking of your choice, change configurations, and still benefit from SAP support. This means you can deploy IBM Power Systems for SAP HANA and re-use storage and networking you already have on hand, further reducing your total cost of ownership (TCO).

Take a look at the business outcomes the following companies have experienced due to the flexibility provided by IBM Power Systems.

Química Amparo transforms its capabilities

Cleaning-product manufacturer **Química Amparo** exports to over 20 countries across Latin America and beyond. Having set a target to double its share of the Brazilian market, Química Amparo needed to identify and respond with flexibility and agility to the ripest commercial opportunities. The company moved its core SAP solutions to IBM Power Systems, transforming its capabilities while lowering TCO and IT administration time.

Results:

- **Up to 30% faster** reporting and time-to-insight
- **Lower TCO** than comparable x86 servers over five years
- **30% cut** in time spent on server administration



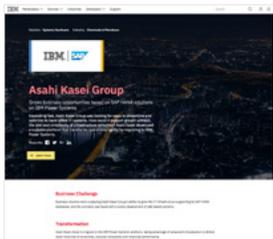
[Read the Química Amparo case study](#)

Asahi Kasei Group grows business opportunities

Expanding fast, **Asahi Kasei Group** was looking for ways to streamline and optimize its back-office IT systems. Business volumes were outpacing the company's ability to grow the IT infrastructure supporting its SAP HANA databases, and the company was faced with a costly replacement of x86-based systems. Asahi Kasei developed a scalable platform that transforms operational agility by migrating to IBM Power Systems.

Results:

- **Flexibility** to manage ad-hoc, peak and planned growth
- **Reduced operational costs** and total cost of ownership
- **Greater performance** with a single, easy-to-manage system



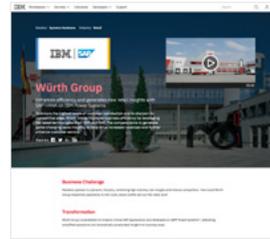
[Read the Asahi Kasei Group case study](#)

Würth Group sharpens its competitive edge

Retailers operate in a dynamic industry, combining high volumes, low margins and intense competition. How could **Würth Group** streamline operations to trim costs, boost profits and win the retail race? The company consolidated its mission-critical SAP applications and databases on IBM Power Systems, delivering simplified operations and dramatically accelerated insight into business data.

Results:

- **Rapid response** to market conditions enabled by fast solution deployment and scalability
- **86% cut** to number of SAP HANA servers, streamlining operations and reducing complexity
- **43% less time** to update solution stack, including SAP HANA software and infrastructure



[Read the Würth Group case study](#)

Reliability you can bet your business on



The redundancy and resiliency to keep mission-critical environments up and running

For many companies, SAP applications are among the most mission critical. The reliability that has been built into IBM Power Systems is essential as you move workloads into an environment where your system simply cannot go down.

IBM Power Systems are designed to deliver the reliability and fault tolerance required for mission-critical environments such as SAP ECC on HANA, SAP S/4HANA and SAP BWH with no performance penalty. IBM Power Systems are equipped with advanced memory RAS including chipkill with spare chips, so up to three chips can fail before you need to replace a memory board.

Likewise, extensive onboard error checkers, standard error-correcting code and a host of other reliability, availability and serviceability (RAS) features allow IBM Power Systems to survive soft errors, most often with no interruption to running operating systems or processes.

Built-in fault tolerance, redundancy and self-healing capabilities provide up to 99.999 percent uptime.⁶

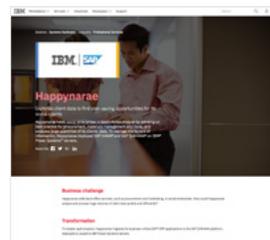
Several companies have seen real benefits in their business due to the reliability provided by IBM Power Systems.

Happynarae manages a torrent of information

Happynarae helps social enterprises in South Korea prosper by advising them on best practices for procurement, materials management and more, and analyzes large quantities of its clients' data. To process huge volumes of data quickly and reliably, Happynarae migrated its business-critical SAP enterprise resource planning (ERP) applications to the SAP S/4HANA platform, deployed on powerful IBM Power Systems servers.

Results:

- **Improved decision-making** by enabling rapid data access
- **Increased service quality** by helping identify opportunities to secure bulk-buy discounts
- **Enabled** social enterprises to fine-tune their marketing activities, boosting sales



[Read the Happynarae case study](#)

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Granules India gains deeper insights

Targeting ambitious growth, **Granules India** is expanding its portfolio and entering new markets. To boost profitability across its booming business, the company sought deeper insight into the costs and margins of each product, manufacturing facility, region and more. Granules India decided to implement SAP S/4HANA with IBM Services, and host and manage the application on IBM Power Systems.

Results:

- **Enhanced decision-making** with new insights into profitability
- **25% growth** forecast in 24 months
- **3 times** greater compute density from IBM Power Systems



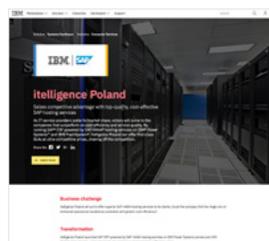
[Read the Granules India case study](#)

itelligence Poland seizes competitive advantage

As IT service providers jostle for market share, victory will come to the companies that outperform on cost-efficiency and service quality. By running SAP ERP powered by SAP HANA hosting services on IBM Power Systems and IBM FlashSystem®, **itelligence Poland** offers first-class service-level agreements at ultra-competitive prices, shaking off the competition.

Results:

- **Accelerated provisioning** of new client systems from two days to a few hours
- **Reduced operational costs**, helping itelligence to undercut rivals' fees
- **5x lower latency** to deliver stellar service to clients



[Read the itelligence Poland case study](#)

Performance that meets your business demands



Top-of-the-line multithreading and memory to accelerate insights

When you are running an in-memory database like SAP HANA, the speed of delivering information greatly depends on how quickly data moves within the system. IBM Power Systems are designed with high bandwidth between the memory and CPUs, both in IBM POWER8® and continuing into and improving with IBM POWER9™ processors. SAP HANA also takes advantage of multithreading in IBM Power Systems to reduce workload spikes.

Compared to x86 systems, IBM Power Systems with multithreading and high-bandwidth memory enable larger environments with fewer cores, while delivering outstanding performance. Many clients have seen performance gains after moving from SAP HANA on x86 systems to SAP HANA on IBM Power Systems. These gains translate into real business advantages for companies, including improved customer satisfaction, time and money saved, and increased agility.

IBM developers working onsite at SAP in Germany continue to push the envelope with IBM Power Systems. IBM POWER9-based scale-out systems provide up to 4 TB of memory on a 2-socket, 24-core server—providing more scalability in a significantly smaller footprint. IBM Power Systems provide unmatched scalability in the industry for SAP HANA workloads and SAP has certified⁷ IBM Power Systems to support a single 24 TB VM in scale-up systems for online transaction processing (OLTP) environments.

In addition, POWER8-based Enterprise systems have 32 TB of memory available and scalability has been increased to 64 TB of memory in the POWER9-based

Enterprise systems. This increased memory provides not only the scalability needed for in-memory databases, but also the flexibility to deploy multiple VMs and dynamically increase or decrease system resources at flexible granularity to address business requirements.

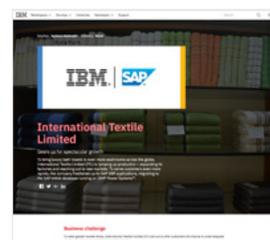
Here are some real-world examples of companies that have gained performance benefits with IBM Power Systems.

International Textile Limited reduces lead times

Headquartered in Karachi, Pakistan, **International Textile Limited** manufactures and exports towels and bedding across the globe. To serve even more customers internationally, the company ramped up production and refreshed its SAP ERP applications, migrating to the SAP HANA database running on IBM Power Systems.

Results:

- **20% reduction in lead times**, enabling customers to get their hands on goods faster
- **10x faster reporting** for remarkably low time to insight
- **Reduced operational costs** with a smaller footprint compared to x86 architecture



[Read the International Textile Limited case study](#)

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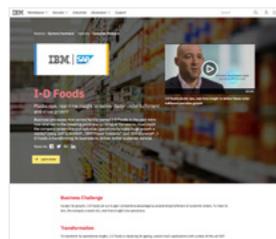
Take the next step

I-D Foods speeds order fulfillment

Hungry for growth, **I-D Foods** set out to gain competitive advantage by accelerating fulfillment of customer orders. To meet its aim, the company required rich, real-time insight into operations. I-D Foods decided to replace its aging, custom-built applications with a state-of-the-art SAP S/4HANA solution running on IBM Power Systems and IBM Storwize® storage.

Results:

- **6x faster** transfer of customer orders to I-D Foods expected through new mobile app
- **Days saved** on warehouse processes will drive faster fulfillment of customer orders
- **87.5% smaller** physical footprint for lower hosting fees



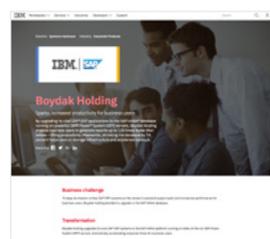
[Read the I-D Foods case study](#)

Boydak Holding sparks increased productivity

Turkish conglomerate **Boydak Holding** relies on a core set of SAP ERP applications that support more than 3,000 employees in their daily work. Boydak Holding upgraded its core SAP ERP systems to the SAP HANA platform running on state-of-the-art IBM Power System E870 servers, dramatically accelerating response times for business users.

Results:

- **Up to 120x faster** SAP reporting enables employees to work more productively
- **74% cut in database size** helps save on storage infrastructure and accelerate backups



[Read the Boydak Holding case study](#)

A future-ready platform that minimizes risk



Infrastructure you can trust with a roadmap for the SAP workloads you depend on

CEOs and CIOs across industries tell us that IBM's help in following the SAP roadmap to SAP HANA and SAP S/4HANA while minimizing risk is very important to their companies. Over 1,400 organizations have purchased IBM Power Systems to run SAP HANA. These businesses know that unmatched flexibility, resiliency and performance make IBM Power Systems a great platform for SAP HANA deployment.

In addition, the [IBM Systems Lab for Power Systems](#) has developed experience and best practices from performing hundreds of SAP HANA on IBM Power Systems deployments worldwide.

IBM Power Systems provide infrastructure you can trust. You benefit from tight alignment of IBM with SAP for more than 40 years. And now, you have a roadmap for the future that is directly aligned with big data and in-memory workloads. SAP HANA on IBM Power Systems: It's the smart move.

How IBM answers your challenges

• Minimizing the complexity of SAP HANA

Infrastructure: Make infrastructure easier and faster to deploy with IBM Power Systems offerings tailored for SAP HANA. These offerings can support a greater workload density and require fewer servers. And you have easier to manage system management tools that integrate with SAP Landscape Management (SAP LaMa).

• Ensuring the infrastructure can meet changing demands

Capitalize on PowerVM® virtualization capability, plus elastic capacity on demand. This allows you to run applications more flexibly and grow capacity along with the size of the SAP HANA environment by turning processors and memory on and off as needed and dynamically increasing or decreasing system resources.

• Avoiding high costs when running SAP HANA:

Run more SAP HANA production environments on a single server⁸ to reduce the number of physical systems, energy and floor space required. The ability to run mixed workloads allows you to deploy SAP HANA next to existing SAP or non-SAP systems on the same IBM Power Systems server.

• Providing the reliability needed for SAP HANA

databases: IBM Power Systems servers deliver up to 99.999⁹ percent uptime with redundancy built in for critical components. The built-in hypervisor has no documented security exposures, further limiting outage risk.

• Maintaining an advantage over your competitors using

SAP HANA: Get information fast with the IBM Power Systems architecture, which features high in-memory bandwidth, I/O bandwidth, simultaneous multithreading and cache designed for handling big data.

Take the next step



Are you ready to explore what SAP HANA on IBM Power Systems can do for your organization? To learn more, contact your IBM representative or IBM Business Partner, or visit: ibm.com/power/saphana



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¹ <https://www.ibm.com/blogs/systems/pushing-new-industry-standards-sap-hana-ibm-power-systems>

² beta.fortune.com/global500/list

³ IBM at SAPPHERE 2018 event (June 2018)

⁴ <https://www.sap.com/partner/find.awardwinning.html>

⁵ Refer SAP Note 2230704 for details on support for 16 SAP HANA production instances on IBM Power System E980.

Register or log in to <https://support.sap.com/home.html> to retrieve the note <https://launchpad.support.sap.com/#/notes/2230704/E>

⁶ ITIC Report – March 2018: <https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=23015323USEN&>

⁷ <https://www.sap.com/dmc/exp/2014-09-02-hana-hardware/enEN/power-systems.html>

⁸ SAP Note 2230704 and SAP Note 2315348 (see footnote 5).

⁹ ITIC Report – March 2018: <https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=23015323USEN&>

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