

How can your organization benefit from running SAP HANA® on IBM® Power®?

With global data volumes set to grow to more than 180 zettabytes in 2025,¹ organizations across every sector are facing tremendous pressure to manage, process, store and extract valuable insights from their critical data.

By running SAP HANA on IBM Power servers, businesses can:



Provision Faster

Simplify system management and boost business agility.

0.01 cores, 1GB memory
Create new environments flexibly by allocating incrementally starting as low as 0.01 cores and 1GB memory.

Cut energy usage

Reduce datacenter costs and enhance environmental sustainability.

50% less energy
IBM Power E1050 provides comparable performance and requires half the amount of energy used by compared x86-based server.⁴

54% performance boost
IBM Power E1080 uses 15% less energy and provides 54% more performance at maximum input power than the compared x86-based server.⁵

Strengthen security

Protect critical data and applications from cyberthreats with end-to-end security, including new transparent memory encryption with no performance impact.

60x
More secure than unbranded commodity servers.⁷

Maximize uptime

Minimize disruption to business-as-usual activities.

#1
Best-in-class reliability for 14 years.²

99.999%
Five-nines server reliability score achieved during independent testing.²

2x
Two-times better memory RAS than Industry-Standard DIMMs.³

Scale affordably

Reduce the risk of over-provisioning with flexible hybrid cloud solutions, instant scaling, and pay-per-use consumption options.

40TB
Scale up capacity—the largest supported for SAP S/4HANA® and SAP BW.⁶

Gain faster insights

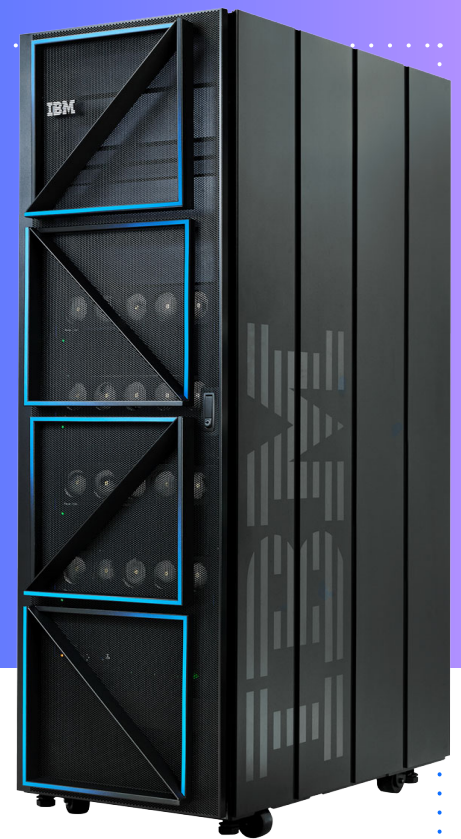
Make rapid decisions to maximize business efficiency.

2.5x
Better per core performance than compared x86 servers.⁸

World record
4- and 8-socket two-tier SAP SD standard application benchmark results.⁹

“Transitioning to IBM Power10 servers delivers performance gains of up to 75% while cutting energy consumption by 20% compared to POWER9. IBM is a true partner in our journey to run business-critical systems cost-efficiently and sustainably, while delivering outstanding performance.”

Christian Dümmler
Senior Manager responsible
for global SAP infrastructure
Bosch Group



Key facts about IBM and SAP

>4,800 clients served by SAP HANA on IBM Power servers

50+ years of IBM and SAP partnership

>115 external client references for SAP HANA on IBM Power

37 SAP Pinnacle Awards won by IBM

30,000 organizations run essential workloads on IBM Power

“We only need two IBM Power E950 servers to run all our SAP S/4HANA workloads. This was five-times fewer servers than the x86 solution we were considering, which significantly reduces software licensing costs.”

Miguel Antunes
IT and Infrastructure Coordinator
CENIBRA

To learn more about SAP HANA on IBM Power, visit ibm.com/power/sap-hana

Endnotes

1. Statista, “Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2025” (<https://www.statista.com/statistics/871513/worldwide-data-created/>)
2. ITIC 2022 Global Server Hardware Server OS Reliability Report, August 2022, p.3 (<https://www.ibm.com/account/reg/signup?formid=urx-51389>)
3. Based on IBM’s internal analysis of the IBM product failure rate of DDIMMS vs Industry Standard-DIMMs.
4. Performance is based on Quantitative Performance Index (QPI) data as of July 18, 2022 from IDC available at <https://www.idc.com/about/qpi>. IBM Power E1050 (4x24c Power10) QPI of 192,831 versus HPE Superdome Flex 280 (8x28-core Xeon 8280M) QPI of 187,005. Energy consumption is based on maximum input power: IBM Power E1050 with maximum power of 5,200 W <https://www.redbooks.ibm.com/redpapers/pdfs/redp5684.pdf> Superdome Flex 280 with maximum power of 10,540 W https://www.hpe.com/psnow/doc/a00059763enw?jumpid=in_lit-psnow-red
5. Performance is based on Quantitative Performance Index (QPI) data as of July 18, 2022 from IDC available at <https://www.idc.com/about/qpi>. IBM Power E1080 (16x15c Power10) QPI of 547,754 versus HPE Superdome Flex (16x28-core Xeon 8280M) QPI of 354,898. Energy consumption is based on maximum input power: IBM Power E1080 with maximum power of 18,000 W <https://www.ibm.com/docs/en/power10/9080-HEX?topic=specifications-model-9080-hex-server> Superdome Flex with maximum power of 21,080 W https://www.hpe.com/psnow/doc/a00026242enw?jumpid=in_lit-psnow-red
6. Power10: The maximum of 40TB for OLAP workload must not be exceeded. For OLTP workload up to 32TB can be used. Scale Up Capacity: SAP Note: 2188482: <https://launchpad.support.sap.com/#/notes/2188482>
7. Information Technology Consulting (ITIC), “ITIC 2022 Global Server Hardware, Server OS Security Report”, ITIC, August/September 2022, p.15 (<https://www.ibm.com/account/reg/us-en/signup?formid=urx-50805>)
8. SPECint Math: (Power10 2170 peak /120 core)/(1620 peak/224 cores)=2.5 Max System SPECint IBM Power E1080 (3.55-4.0 GHz, Power10) 120 Cores, 8 CPUs SPECint Score 2170 per CPU Score 271.25 per Core Score 18.08 Date: As of Sept 2, 2021. Max System SPECint Hewlett Packard Enterprise Superdome Flex 280 (2.90 GHz, Intel Xeon Platinum 8380H) 224 Cores, 8 CPUs Intel Xeon Platinum 8380H Speed 2900 Mhz SPECint Score 1620.00 per CPU Score 202.50 per Core Score 7.23 Date: Feb-2021 Link: CPU2017 Integer Rate Result: Hewlett Packard Enterprise Superdome Flex 280 (2.90 GHz, Intel Xeon Platinum 8380H) (test sponsored by HPE) (spec.org)
9. All 4 and 8-socket results can be found at sap.com/benchmark and are valid as of July 7, 2022.



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