Brochure

Migrate your mission-critical SAP applications from IBM Power AIX to HPE

Hewlett Packard Enterprise

IBM Power customers are turning to Hewlett Packard Enterprise for cost-effective, modernized infrastructure to run their mission-critical SAP HANA workloads

- Hewlett Packard Enterprise is a global leader in implementing mission-critical SAP workloads
- Hewlett Packard Enterprise has thousands of staff who have delivered SAP solutions to thousands of customers
- Nearly half of all SAP licenses on Linux, run on Hewlett Packard Enterprise
- Hewlett Packard Enterprise has 7000+ SAP HANA deployments
- HPE Superdome X is 66% lower TCO than IBM Power System E880 for a SAP HANA configuration
- HPE servers are certified by SAP to scale higher (20 TB) than IBM Power (9 TB)
- The HPE mission-critical x86 platforms can maintain the stability yet enhance the agility of your mission-critical SAP business processing beyond other x86 alternatives

Imperative to migrate to SAP HANA by 2025

By 2025, SAP® customers running traditional SAP applications must migrate to SAP HANA®, which is supported only on Linux®. Therefore, IBM Power SAP customers must migrate their database, operating systems, and IBM Power 5, 6, or 7 platforms to SAP HANA running on Linux. For IBM Power SAP customers this means:

1. Database migration from Oracle or DB2 to the SAP HANA platform including a data conversion to little-endian[1]
2. OS migration from AIX to Linux
3. The IBM Power platform must be upgraded to POWER8 processor technology or to industry-standard x86
4. Application migration—SAP applications to SAP HANA application

SAP HANA helps you manage data in a single in-memory platform—so you can take action in the moment, accelerate innovation, and run transactions and analytics live, with faster business insights. The HANA environment is, therefore, core to a company's IT infrastructure and must be fully in sync with IT standards such as VMware®, cloud automation software, and other standardized technologies, which invariably run on x86 and not on IBM Power.

These are significant changes requiring a trusted partner with **proven experience** of implementing many SAP transitions to HANA—a solid UNIX®—like **proven platform** to run mission-critical SAP HANA along with **proven SAP services** with mission-critical support.

Hewlett Packard Enterprise will help you achieve this goal with the best experience, platform,[2] and services for your SAP HANA implementation.

Take this opportunity to evaluate a complete transition away from expensive, closed, proprietary systems such as IBM Power that require specialized management with high administration costs, offer limited innovation, and few Linux applications.[3] Is it time to reap the benefits of modernizing to an agile, cost-effective infrastructure compatible with future, innovative standardized technologies such as virtualization and cloud automation?

Consider this: When you upgrade your SAP business applications, it's an ideal opportunity to consider moving away from a locked-in, proprietary, and costly IBM Power System

Why are mission-critical SAP workloads being migrated with Hewlett Packard Enterprise?

"Because we had decided to move our P7 UNIX platform, it made sense to find a solution with the technical leader in the HANA market, Hewlett Packard Enterprise. Also, on a project of this importance, we prefer a direct relationship with the vendor, and HPE spans hardware, software, implementation services, and consultancy."

Zhang Yan, deputy director, IT, NTUC Fair Price

[1] IBM Power customers will need to move from big-endian to little-endian when they migrate to Power on Linux on SAP HANA 2.0.

[2] Mission-critical servers such as HPE ConvergedSystem 900 for SAP HANA, HPE Superdome X, HPE Integrity MC990 X Server, HPE ConvergedSystem 500 for SAP HANA, and HPE ProLiant DL580 Gen9 Server; along with software spanning high availability, security, management of heterogeneous systems such as HPE Serviceguard for Linux, HPE OneView, and leading HPE 3PAR Storage products.

[3] There exist only a few hundred Linux apps for IBM Power Systems today. Intel® estimate of little-endian Linux on IBM Power Systems at 500–700 applications is enabled as of May 2016. Intel estimate of little-endian x86 software ecosystem is 100K+ applications enabled.

"HPE was more flexible than IBM when it came to our requirements and terms. HPE was more knowledgeable technically about SAP HANA."

Kuljeet Sethi, CIO, Avon Cycles, Ltd.

Why choose HPE for SAP HANA?

No matter where you are in your SAP journey, Hewlett Packard Enterprise can help you move from a proprietary, declining[4] IBM AIX Power environment toward flexible and cloud-ready SAP solutions that enable business agility and freedom from vendor lock-in.

Hewlett Packard Enterprise has been a leading partner of SAP for over 27 years and no one has greater experience in deploying SAP HANA than us. We have thousands of staff that have delivered SAP solutions to tens of thousands of customers, resulting in **Hewlett Packard Enterprise running nearly half of all SAP licenses on Linux**.[5] We have helped many IBM Power customers running SAP R3 to migrate to SAP HANA.

Just a few of the reasons to select Hewlett Packard Enterprise over IBM Power:

- **Proven platform for SAP HANA**—We are the leading infrastructure platform for SAP HANA with more than 7000 physical deployments, more than 2X the closest competitor.
- **Broad solution choice**—Hewlett Packard Enterprise provides a broad choice of SAP HANA systems including appliances (such as HPE ConvergedSystem 900 for SAP HANA, HPE ConvergedSystem 500 for SAP HANA) and tailored data center integration (TDI) solutions. These solutions are built with HPE Superdome X, HPE Integrity MC990 X, and HPE ProLiant DL580 Gen9 Server. IBM only provides a TDI implementation and does not offer an appliance.
- **HPE-SAP global partnerships**[6]—Hewlett Packard Enterprise allies with top systems integrators, cloud providers, and technology partners.
- **Scalability**—SAP HANA solutions on Hewlett Packard Enterprise can scale up to a certified 20 TB.[7] IBM only supports up to 9 TB. HPE Superdome X is the largest scale-up server certified with SAP HANA and is the world's fastest ERP server with x86 leadership in a scale-up server with 8–384 cores and 24 TB of memory.
- **High availability**—HPE Serviceguard Extension for SAP (SGeSAP) on Linux with HPE Superdome X provides 99.999% high availability.[8]
- **HPE-SAP services and one-stop support**—Hewlett Packard Enterprise has delivered SAP to thousands of customers and has thousands of SAP certified staff; we offer industry-proven services for planning, implementing, and operating HPE solutions for SAP and HANA. In addition, migration, consulting, deployment, security, 24x7x365 one-stop mission-critical support.
- **Lower TCO**—The HPE industry-standard computing provides TCO savings (purchase, licensing, and support over three years) of 66% or more over IBM Power.[9] See Table 1 below.
- **Top SAP performance on x86**—Highest performing 16-processor result on the two-tier SAP sales and distribution (SD) standard application benchmark—117,611 SAP SD benchmark users and 644,830 SAPS.

Focus on TCO savings: TCO reduced 66% over IBM Power running SAP HANA on Linux[10]

The savings are about $3.3 million (or $1.1 million per year) when comparing the TCO over three years between an IBM Power System E880 (costs $5 million) and an equivalent HPE Superdome X (costs $1.7 million). This is outlined in graph 1 below. Such significant savings of over a million dollars per year may be utilized for strategic IT purposes, such as the SAP HANA-related migration.

[4] 31% year-on-year IBM Power revenue decline, data sourced from IBM **ibm.com/investor/att/pdf/IBM-3Q16-Earnings-Charts.pdf** page 27; 31% decline in IBM Power units shipped 2011-16 (CAGR), data sourced from IDC Quarterly Server Tracker, Q2 2016

[5] HPE internal tracker including secondary research as of October 2016

[6] Top global partnerships include Deloitte, Accenture, CSC, FIT, CenturyLink, SUSE, Red Hat®, Micro Focus

[7] Generally available up to 16 TB on the CS 900 and up to 20 TB on the HPE-SGI UV 300

[8] With HPE Serviceguard, SGeSAP extension for HANA, HPE is the only server vendor offering a fully automated failover solution for mission-critical SAP HANA

[9], [10] HPE internal study, October 2016

[11] Based on Hewlett Packard Lab availability analysis and actual measured availability results. Single-system HPE Superdome X server availability of 99.999% can be greatly increased when used in combination with failover clustering solutions such as HPE Serviceguard for Linux, June 2015

[12] **HPE Superdome X data sheet** (4AA5-5765ENW), June 2016

Learn more at
hpe.com/info/riscmigration

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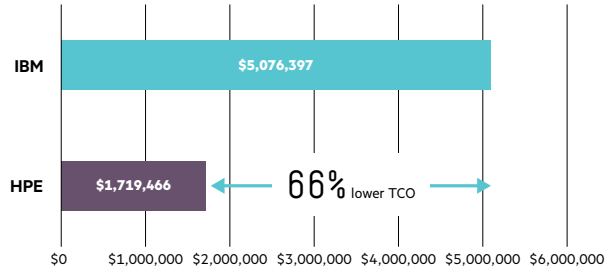
Graph 1. HPE Superdome X vs. IBM Power for SAP HANA
3-year TCO model, figures* in USD



Superdome X saving

68% hardware

56% software

61% hardware and software support

50% power and cooling

* Compares 16-socket HPE Superdome X server and HPE 3PAR StoreServ 8400 vs. a 16-socket IBM Power System E880 and IBM Storwize - V700 524 - 160 x 1.2 TB 10K SFF SAS (1 x Base + 6 x Expansions) – (192 TB raw). Based on HPE internal analysis results using publicly available competitive data, August 2016

Table 1. SAP HANA on IBM Power System E880 (Linux) vs. HPE Superdome X—66% savings in 3-year TCO

3-year total cost	HPE	IBM	Type of expenditure
Hardware	$1,339,361	$4,170,476	CAPEX
Software	$145,823	$334,492	CAPEX
Hardware & software support	$172,252	$446,474	OPEX
Power & cooling	$62,030	$124,955	OPEX
Total	**$1,719,466**	$5,076,397	

Mission-critical credibility—experience our UNIX-like level of availability and reliability on x86

Hewlett Packard Enterprise runs mission-critical SAP workloads migrated from IBM Power. It offers a UNIX-like reliability, availability, and serviceability (RAS) found in the HPE Superdome X and HPE ConvergedSystem 900 that exceeds all other x86 competitors. We offer **20X more reliability, 60% reduction in downtime**, five nines **(99.999%) single-system availability**[11] with zero planned downtime. With HPE Serviceguard for Linux, we provide up to **95% reduction in memory outages** over standard x86. Hewlett Packard Enterprise also offers **200X faster recovery from I/O errors**, has **best-in-class diagnostics** with built-in analysis engine, is **self-healing**, has **mission-critical resiliency**, and has hardware-based ability to isolate applications and failures with HPE nPar.[12]

Why HPE?

Hewlett Packard Enterprise brings cost effectiveness, responsiveness, and UNIX-like reliability to your mission-critical business processing and decision support workloads on SAP with the strongest experience, platform products, and services for your SAP HANA implementation.

Our decades of migration experience and 7000+ SAP HANA migrations provide you a reliable, proven way to higher ROI, and a better, modernized mission-critical SAP HANA environment.

With HPE's industry-leading platform, you can achieve your SAP HANA objectives for high performance, high availability, scale and cost reduction. No other vendor has the experience, capability, and solutions to help you build your future. Make the right choice with HPE.

4AA6-8873ENW, December 2016