

STRAIGHT TALK, --- --- *REAL* *ANSWERS*

Demystifying the Top 5
Myths of Running SAP HANA
on IBM Power Systems

IBM

Don't buy into misconceptions.

The truth is SAP HANA is more flexible, more reliable and runs faster on IBM Power Systems than on x86 platforms.

For over 40 years, IBM and SAP have collaborated and co-innovated solutions to drive transformation, helping clients remain competitive in an ever-changing world. In 2018, that partnership was recognized when IBM Power Systems was named SAP's Infrastructure Partner of the Year. This partnership has enabled us to deliver one of SAP's most rapidly adopted new technologies, demonstrated by the more than 1,200 clients deploying SAP HANA on the platform built and optimized for it.

Working closely with SAP, IBM provides the enterprise-grade infrastructure, service and support needed for clients like you to leverage a low-risk, mission-critical journey to SAP HANA. When the data stored is mission critical for the business, downtime isn't an option and security is top of mind. With 6x cache per core, 4x memory I/O bandwidth, 4x processing threads per core, 99.999% uptime, and zero documented vulnerabilities on PowerVM¹, IBM Power Systems is the right infrastructure choice for your SAP HANA workloads.

Top 5 Myths:

- IBM Power Systems supports a different version SAP HANA than x86-based servers. **False!**
- IBM Power Systems is more expensive than x86-based servers for SAP HANA workloads. **False!**
- SAP HANA on IBM Power Systems with PowerVM will be complicated. **False!**
- Migrating to SAP HANA on IBM Power Systems from x86-based servers is too painful. **False!**
- IBM Power Systems doesn't have any market share for SAP HANA. **False!**

Now,
let's explore in more detail the top 5 myths about running SAP HANA on IBM Power Systems.

MYTH 1

“Rumor has it that IBM Power Systems supports a different version of SAP HANA than x86-based servers. Is that true?”

No.

SAP HANA is an SAP product and is developed and tested on both x86-based servers and IBM Power Systems. New versions of SAP HANA become available on both platforms at the same time. The version of SAP HANA for the Power Systems platform is no different than for the x86 platform. While the SAP HANA code is the same, the supporting infrastructure greatly impacts how much you get out of your SAP HANA workloads.

For your mission-critical workloads, downtime isn't an option and security is table-stakes. That is why IBM Power Systems, designed for the most data intensive workloads on earth, like SAP HANA, and named one of the most reliable platforms for eight consecutive years, offers you the flexibility, reliability and performance needed to get the most out of your SAP HANA workloads.²

IBM Power Systems enterprise-grade servers support these workloads in scale up and scale out configurations. Just like x86-based servers, these servers all support Linux, which is needed to run SAP HANA. Unlike other platforms, the Power Systems platform was designed with built-in virtualization,

allowing clients to run the largest SAP HANA virtual machines with near zero overhead penalty. Customers are able to run the largest SAP certified and published scale-up configuration for OLTP (S4) VM with 24TB and OLAP (Business Warehouse) VM's with 16TB of memory configuration and this scalability allows the customers to run largest SAP certified scale-out SAP HANA configurations as well. In addition, Power System clients can run SAP HANA virtual machines side by side with SAP Application servers as well as other non-SAP applications allowing you to consolidate your server environments onto fewer Power Systems servers, leading to lower operational and maintenance costs.

*IBM Power Systems ticks all the boxes for us as an MSP. We get **enterprise-class performance, reliability and availability** all in a single, easy-to-manage platform.*

—Simone Armari
Solution Architect and Presales Manager, Dedagroup³

MYTH 2

“My IT budget continues to shrink and I hear that IBM Power Systems is more expensive than x86 for SAP HANA workloads. I’m worried that implementing new infrastructure will be too much of a cost burden.”

Not true.

In fact, the total cost of ownership of your investment is often lower on IBM Power Systems than an x86 environment for SAP HANA.

Implementing and maximizing the benefits of SAP HANA while your IT budget shrinks can be challenging, but IBM Power Systems servers are built to last and deliver greater performance in a smaller footprint, delivering cost efficiency. The flexibility of IBM Power Systems allows you to consolidate what otherwise would be large x86 server environments onto fewer Power Systems, leading to lower operational costs.⁴

Consolidation, however, doesn’t mean you must skimp on performance. German retailer, HR Group,

saw 60% faster business processes with half of the processor core count on IBM Power Systems built for SAP HANA. Power Systems allows you to deliver excellent performance while achieving you cost-efficiency, allowing you to process more data with less infrastructure overhead. The flexibility of IBM Power Systems also enables you to grow your capacity on demand, activating and paying for additional memory as your environment requires. This allows you to easily grow your environment along with the SAP HANA environment rather than requiring an investment in an entirely new server.

Take, for example, the South American petroleum company who chose IBM Power Systems as its SAP HANA platform because the Power Systems solution achieved a lower TCO, delivering its HANA workloads for 84% of the x86 alternative.⁵

South American petroleum company chooses SAP HANA for its next ERP platform

Client Situation

A South American company was looking at infrastructure alternatives to deploy SAP HANA in place of its current SAP ERP workloads on Power Systems servers.

Solution

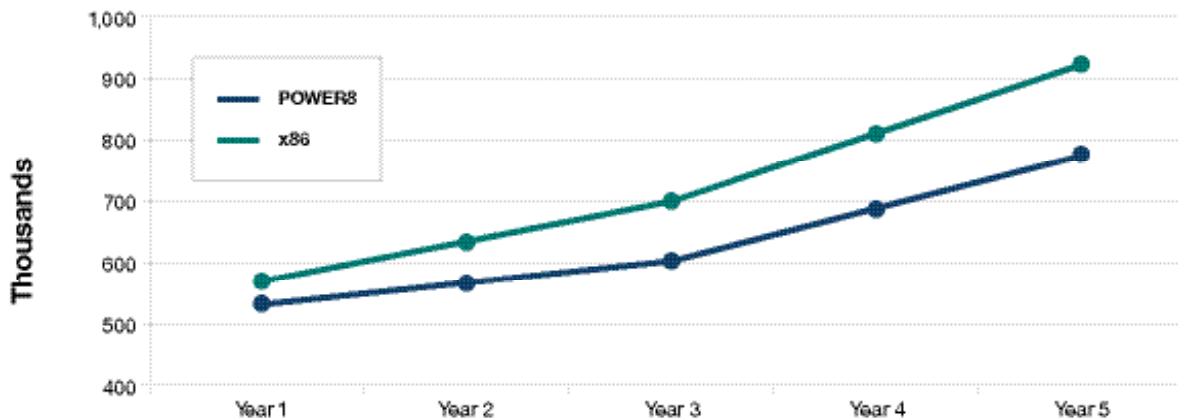
- Deploy SAP HANA on Power Systems instead of x86 to achieve lowest TCO
- DR and HW are the largest cost drivers for x86 solution

Benefit

- Power Systems solution delivers a 1.5 TB SAP HANA configuration for 84% of the cost of the x86 alternative
- Power Systems DR solution lowers admin cycles, freeing resource for other IT priorities

ROI = 16%
Payback period = 0 months

Accumulated TCO Cost Comparison



MYTH 3

“Running SAP HANA on IBM Power Systems with PowerVM will be complicated and require my team to learn new skills.”

No.

In fact, PowerVM virtualization helps to simplify datacenter operations. PowerVM provides built-in virtualization that is easy to manage with tools that integrate seamlessly with familiar management tools like VMware vRealize and other OpenStack based tools.⁶ You can continue to manage your environment with tools that you're familiar with.

IBM PowerVM offers secure server virtualization without limits. Many clients tell us that IBM Power Systems and PowerVM helped them to speed up the process needed to go live. With PowerVM, clients can deploy large HANA production databases using the same virtualization methods used across the rest of their workloads, and on a very stable and high-performance platform. Clients continue to turn to PowerVM server virtualization to consolidate multiple workloads onto fewer systems, increasing server utilization and reducing cost.

In addition, IBM offers PowerVC automation to integrate external tools into your virtualization environment. That means you can either use

PowerVC manager to provision and orchestrate PowerVM or integrate Open Stack tools, like VMWare vRealize Automation, to do so. PowerVC also integrates with SAP LaMa which helps in end-to-end orchestration and management of SAP environment.

We hear from many HANA on x86 customers that they struggle with the bare metal implementations that have forced on them by poor VMware support. Their teams have become so dependent on the management tools associated with VMware, that when forced to manage systems that are not running these tools, their IT staffs end up making mistakes and creating system outages.

This competitive advantage helps clients focus on their SAP HANA deployment with a simple, familiar management environment.

*Using IBM PowerVM virtualization scaling the solution up or down requires only a **single click**, lending itself to **rapidly deploy** proof of concept environments that can later be scaled up to support production operation.*

–Hans Gootjes

Head of Architecture and Design, CTAC⁷

MYTH 4

“Migrating to SAP HANA on Power Systems from x86 is too painful and time consuming.”

Nope.

With IBM Power Systems, migration is painless, and IBM provides tools and services designed to simplify your migration process.

Actually, migrating SAP HANA from x86 to IBM Power Systems isn't a hassle, and uses the SAP tools that clients and System Integrators are already familiar with. In fact, if you are running HANA v2.0, the migration from x86 to Power Systems has become even simpler as you can easily migrate via Backup/Restore or you can setup SAP HANA System Replication between the two platforms. As is the case with any migration, the time is usually dependent on the number of factors such as size, bandwidth, planning, production, or non- production. Since most clients have SAP skills in-house today, it's possible to migrate SAP HANA over to Power Systems using their existing resources. However, we recommend

tapping into IBM experts during the planning.

If you need or want more assistance with your SAP HANA migration, IBM has teams of technical experts like IBM Systems Lab Services and IBM Total Solution Support (TSS). With Lab Services Migration Factory, consultants help clients design and build Power Systems infrastructure for their SAP HANA workloads using a tailored data center infrastructure strategy. While TSS's SAP HANA Total Solution Service provides clients with the only fully integrated end-to-end service and support solution in the market. We're here to help.

*We are **very happy with the service** we receive from IBM and SAP. These companies give us innovative solutions that underpin our entire business, and for over a decade IBM has helped us complete complex technology projects that **deliver real value to our business**. With IBM and SAP at our side, we can achieve our dreams.*

–Rainer Steffl

Vice President, Information Management Director, Mondi Europe & International[®]

MYTH 5

“ IBM Power Systems doesn't have a solid client base running SAP HANA. ”

Not true.

While we're newer to the market than x86-based platforms, we have gained significant traction, with over 1,300 clients running SAP HANA on Power Systems.

Our SAP HANA on IBM Power Systems solution entered the market in August 2015. In a short time, IBM Power Systems now has over 1300 clients for SAP HANA. According to IDC's 2016 Infrastructure for Business Analytics (SAP) special report, IBM was ranked 3rd out of 10 vendors with 15.3% of IDC's 300 surveyed respondents in N. America deploying SAP HANA.⁹ IBM believes that they chose IBM Power Systems because the platform provided the flexibility to scale with the needs of the business.

The trend of cloud adoption presents new

opportunities for SAP HANA on Power Systems clients. IBM Power Systems servers are cloud-ready servers. They are fully integrated with VMware vRealize, SAP LaMa and other OpenStack compliant tools. Due to client demand for a cloud environment, IBM Power Systems is creating a cloud offering for SAP HANA. With this cloud solution, clients will be able to customize their cloud and on-premises environments based on their workload needs. Additionally, IBM has a cloud offering for SAP HANA on IBM Power Systems.

Taking everything into consideration, from investment costs to operating costs, scalability and administration, IBM Power Systems was the best solution for our SAP HANA databases

—Christoph Kalt

Managing Director, Lead IT Architect, Coop Group¹⁰

Don't be fooled by misconceptions.

See why clients chose IBM Power Systems over x86 for SAP HANA in this IDC Analyst Report: <http://ibm.biz/Power-IDC>

Sources & Disclaimers

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Produced in the United States of America
August 2017

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