



Highlights

- Today's IT teams often spend the majority of their budget performing standard maintenance tasks, leaving very little left over to invest in innovation.
 - The high costs charged by some proprietary database vendors may be a major factor contributing to strained IT budgets.
 - Adopting enterprise-ready open source database products from EnterpriseDB (EDB) can help change the budget situation, and empower IT as a source of innovation and business value.
 - IBM® Power Systems™ provides the optimal platform for running EDB Postgres, with high performance and price efficiency.
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IBM Power Systems and EnterpriseDB

Together, empowering IT to transform and take advantage of revolutionary technologies

The business world is changing: new technologies like big data and analytics, cloud, and mobile are empowering business users to accomplish more than ever before. However, many IT organizations aren't prepared to fully invest in these new technologies; according to Rita Gunter McGrath, business strategy expert and professor at Columbia Business School, many organizations are dedicating between 80 and 90 percent of their IT budgets to basic maintenance.¹

There is one direct way organizations can reduce this maintenance spending and free up funding to pursue innovation and new technology: reducing the cost of their database solution.

A leading example of an open source relational database that is helping organizations save money and pursue new technology is EnterpriseDB Postgres, from IBM Business Partner EnterpriseDB (EDB). With EDB Postgres, users get a high-performance enterprise-class database management system that can optimize cash flow and pave the way to innovation.

IBM Power Systems is the optimal platform on which to run EDB Postgres, offering unmatched price performance, support for little-endian Linux, and other important benefits that help organizations make the most of their investment in an EDB Postgres solution.

Understanding the value of EDB Postgres

EDB Postgres is a complete data platform that is open source-based, enterprise grade, relational, compatible with leading commercial database technology, and capable of supporting mixed data types.



Open source

From the standpoint of an organization looking to cut costs in their database environment, the appeal of an open source solution is clear. Some proprietary commercial databases charge high prices for licenses, which can place significant strain on IT budgets that may already be stretched tight. An open source solution can help remove the cost of these licenses and create more room in an organization's budget.

Over the years, open source has replaced proprietary options for components such as operating systems, virtual machines and middleware. It should come as no surprise to see the same thing happening now with databases.

Enterprise-class

Before an enterprise organization can achieve optimized cash flow by adopting an open source database, they need to find an open source offering that truly meets their needs. While there are many open source relational databases available today, very few of them are capable of supporting mission-critical enterprise applications—those applications that simply cannot go down or lose data under any circumstances.

In order to offer a true alternative to high-price commercial databases, an open source database must support mission-critical online transaction processing with high levels of reliability, scalability, and data integrity. EDB Postgres is one of the few that does. In fact, in a recent Gartner Magic Quadrant report, EDB was named to the Leaders quadrant alongside some of the biggest names in the commercial database market, a clear recognition of the enterprise-grade capabilities it provides.²

Relational

As a relational database, EDB Postgres is well positioned to support online transaction processing, without which everyday business operations could not take place.

Many organizations today are seeking an alternative to the relational database, which they associate with proprietary SQL languages, vendor lock-in, and high license and maintenance costs. However, the term “relational” is not necessarily synonymous with “expensive.” As EDB demonstrates, it is entirely possible to get a relational database—and the reliable transaction processing it provides—without having to overpay for it.

Support for mixed data types

EDB Postgres includes the powerful combination of unstructured, semi-structured, and structured data storage in a single enterprise database management system. This allows enterprises to preserve the long-term viability of assets such as enterprise information.

Compatible with leading commercial databases

Finally, by offering compatibility with leading commercial relational database offerings, EDB Postgres makes the process of migrating applications to open source straightforward and streamlined. One example of this is EDB's compatibility with Oracle.

EDB offerings run native PL/SQL, the proprietary SQL language for Oracle, and include automated migration tools to help save time and minimize uncertainty in the migration process. Together, these features make migrating to EDB Postgres substantially less risky and time consuming for existing Oracle users.

Why IBM Power Systems offers the ideal platform for running EDB Postgres

Like all database solutions, EDB Postgres needs to run on the right platform in order to provide the best results. With its high performance and low total cost of ownership, IBM POWER8, the latest in the IBM Power Systems line of offerings, is uniquely positioned to be the platform that delivers the best results for organizations using EDB technology.

Performance architecture

The Power Systems product family offers a variety of performance features that make it an excellent option to support EDB Postgres. For instance, with support for simultaneous multithreading with eight threads per core (SMT-8), IBM POWER8 is able to offer four times more threads per core than comparable x86 systems. This allows organizations to run their EDB Postgres instances with a consolidated, highly efficient server environment.

In addition, POWER8 offers an addressable cache size, allowing organizations to adjust their system as the needs of their business change over time. By investing in EDB Postgres now, and pairing it with a fully scalable platform

such as POWER8, organizations can feel confident that their database environment is prepared to scale in order to keep up with whatever the future might hold.

Price performance

For organizations concerned about the high cost of proprietary relational databases, running EDB Postgres on POWER8 is an especially attractive proposition. By helping users experience a level of performance comparable to x86 while using fewer cores, POWER8 allows organizations to save money on the price of per-core EDB Postgres annual subscriptions.

Add this to a server price that is often cheaper than x86 options to begin with, and you get price performance that's up to 60 percent better. This means that organizations can accomplish more with the same amount of funds, and further capitalize on the lower total cost of ownership that EDB Postgres can offer on its own.

By running EDB Postgres on IBM POWER8, organizations can achieve database costs significantly lower than those of proprietary database solutions. In an era when moving funds away from basic maintenance tasks in order to better support innovation is a top priority, numbers like these show that EDB Postgres on POWER8 is a great option to help meet that goal.

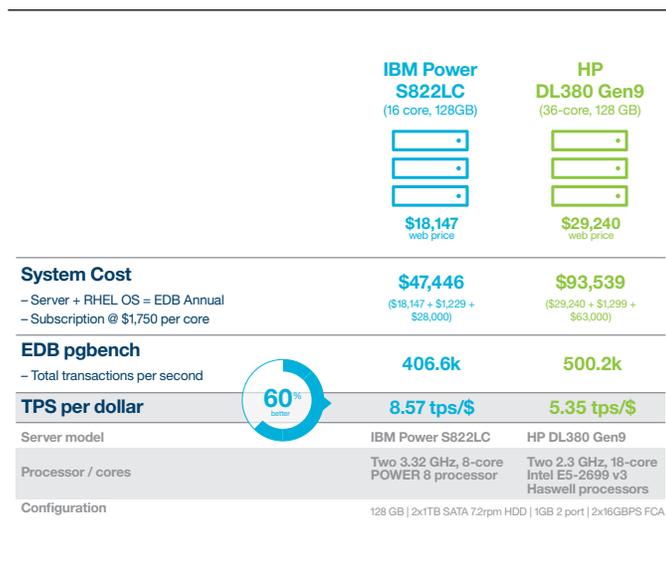


Figure 1: Sample price performance benchmark for EDB Postgres 9.4 running on IBM POWER8 and Intel Haswell platforms

IBM Power Systems LC Server family

Many of the advantages of Power Systems as a platform for running EDB technology can be traced back to the introduction of the IBM Power Systems LC Server family. First announced in October 2015, the Power Systems LC family is designed to be deployed in cluster and cloud environments, and is also cost-optimized for these kinds of environments.

Like EDB Postgres, the Power Systems LC family is an excellent choice for organizations looking to keep up with the business transformation going on around them. In addition to economical pricing that can free up budget room for innovation initiatives, the Power Systems LC family also offers the ability to deploy big data technology with confidence and optimize data centers for the cloud.

Open innovation at a cost advantage

The OpenPOWER Foundation joins together some of the foremost technology solution providers in the world to leverage the whole computing stack—not just the processor—to drive innovative solutions.

With over 200 member businesses, organizations and individuals, the OpenPOWER Foundation provides the technology and collaboration tools needed to deliver customized solutions and increased performance to customers, including hyperscale data centers and high performance computing organizations. OpenPOWER innovations are built by a growing community of more than 2,300 independent software vendors supporting Linux on POWER applications.

Support for little-endian Linux

In addition to the commitment to OpenPOWER, one of the most important workload changes that POWER8 brings is support for little-endian Linux. With little-endian Linux support, moving x86 Linux applications to Power Systems has never been easier.

POWER8 runs industry-standard Linux from Red Hat, SUSE or Canonical, giving organizations the flexibility to select the Linux option that best meets their needs. In addition, Linux exploits the advanced hardware and software capabilities of POWER8 technology. This helps organizations address the demands of today's complex applications, and provides economic advantages that scale as business requirements grow.

Together, these features make migrating to EDB Postgres substantially less risky and time consuming for existing Oracle users. This means that organizations can begin experiencing cost savings quickly after migrating to EDB Postgres.

About the IBM/EDB partnership

As two leading organizations in the field of database technology, IBM and EDB have a long history of collaborating in order to help their shared customers get the best possible results. Today, technology from both companies is used to support database transformation initiatives across industries, and in organizations of all sizes. Both organizations also share a commitment to providing high performance, low costs, enterprise-class support, and cloud readiness.

In short, IBM and EDB are working together to ensure that their customers can keep database costs low, and keep plenty of funding left over to support the innovation initiatives that will make the difference between future success and future irrelevance.

For more information

To learn more about IBM Power Systems for the needs of your relational database environment, contact your IBM representative or IBM Business Partner, or visit ibm.com/systems/power.

To learn more about open source relational database management systems from EDB, visit www.enterprisedb.com.



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- 1 McGrath, Rita Gunther. “The End of Competitive Advantage: How to Keep Your Strategy Moving as Fast as Your Business.” Harvard Business Review Press.
- 2 Gartner, “Magic Quadrant for Operational Database Management Systems.” <https://www.gartner.com/doc/reprints?id=1-2PMFPEN&ct=151013>.



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