



Highlights

- Frees you from managing infrastructure
 - Delivers 2.3x superior price-performance
 - Simplifies resiliency
 - Eliminates bottlenecks
 - Increases security without adding silos
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IBM Db2 on IBM Hyperconverged Systems powered by Nutanix

IBM® Db2® is a multi-workload database management solution built to handle a massive volume of data while delivering high performance to support real-time analytics. At the same time, it provides data availability for demanding applications, scalability for growth and flexibility for responding to changes.

Db2 is designed to help ensure your data systems are fast, available, scalable, security-rich and flexible, helping you capture the value of data through right-time actionable insights. Db2 excels in environments that utilize various data types (structured, semi-structured and unstructured). It is optimized for SAP applications, transactional and analytics workloads, and features an average of 98 percent compatibility with Oracle database applications.

To keep up with these Db2 capabilities, organizations need an IT infrastructure that is self-healing, secure and scales performance simply.

Focus on Db2 data, not Db2 infrastructure

A Nutanix Enterprise Cloud infrastructure easily enables performance and resiliency for Db2 that allows Db2 experts to spend more time extracting insight from data. It does this through:

- **Better performance.** Lower latency design means faster response time on transactions and queries.
- **Unlimited scalability.** Applications can run at any scale of total data, size of active data set or compute needed.
- **Higher availability.** Built-in self-healing, backup and disaster recovery capabilities provide better uptime for databases than traditional infrastructure.
- **Simple management.** Installation, deployment, backup and ongoing management can be done with just a few clicks. This speeds up database deployment, administration and capacity expansion.



IBM Power Systems™ and the POWER® microprocessor are designed for data-intensive workloads, providing more threads per core and an addressable cache size beyond what is found on commodity processor-based systems. These benefits translate into superior performance for Db2 running on POWER.

Eliminate bottlenecks

- **Higher performance.** 84 percent more throughput per server.¹
- **Lower acquisition cost.** 75 percent of the price of comparable x86 processor-based appliances.²
- **Scale incrementally.** Start small and grow linearly by adding nodes one at a time.

Administrators can scale existing Nutanix clusters or deploy new clusters in minutes with less concern for compute, storage and network bottlenecks. A Nutanix enterprise cloud provides linear scaling, so Db2 deployments can grow without worry. Each additional node delivers predictable performance to support Db2 search heads, indexers, and other shared workloads. Because of its distributed architecture, a Nutanix enterprise cloud prevents one workload from starving another, allowing the infrastructure to be shared, if desired.

Ease of DevOps

- **Lifecycle management.** With the Nutanix Distributed Storage Fabric (DSF), Db2 indexers access data locally. Db2 data is automatically stored on the right and the resources allocated to each indexer can be changed effortlessly.
- **Data locality.** Nutanix continuously monitors data access patterns and places data in the most appropriate location, complementing the Db2 lifecycle.
- **Next generation virtualization.** Designed for the era of unstructured data, Nutanix AHV is a hypervisor that accelerates deployment and eases management. It is included at no extra cost with IBM Hyperconverged Systems powered by Nutanix purchases, eliminating virtualization licensing costs.
- **One-click management.** With Nutanix Prism, Db2 administrators easily monitor and manage all infrastructure used by Db2, gaining full visibility of storage, CPU, and memory runway. One-click software, hypervisor, and firmware upgrades and one-click problem remediation take the pain out of day-to-day operations.

Increase security without adding silos

To ensure the security of sensitive data, many database architects find they have no choice but to deploy dedicated infrastructure for just the database. However, Db2 can be deployed securely on a Nutanix-based cluster with other workloads, avoiding the need for a separate silo of infrastructure.

Nutanix combines features such as two-factor authentication and data-at-rest encryption with a security development lifecycle. Nutanix systems are certified across a broad set of evaluation programs to ensure compliance with the strictest standards.

Benefits

Nutanix provides strong value based on the findings in an IDC study:³

73% less time to deploy compute

61% less time to manage

97% fewer occurrences of downtime

2.3x better price performance over commodity processor architectures

- ✓ **Frees you from managing infrastructure**
- ✓ **Delivers superior performance and economics via POWER architecture**
- ✓ **Simplifies resiliency**

For more information

IBM Hyperconverged Systems powered by Nutanix:

ibm.com/us-en/marketplace/hyperconverged-systems/details

IBM Db2 on Power Systems:

ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=IMB14110USEN&appname=skmwww



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- 1 Based on IBM internal testing of 4 VM images running pgbench benchmark at scale factor of 300, 20 Gb buffer size. Results valid as of 9/5/17. Conducted under laboratory conditions, individual result can vary based on workload size, use of storage subsystems and other conditions.
- 2 Pricing based on single node of 3-node cluster of IBM Hyperconverged System CS822 with 22 cores (2 x 11c chips) / 176 threads, POWER8; 2.89 GHz, 512 GB memory, 8x1.92TB SSD. Competitive stack: Single node of 3-node cluster Dell XC630-10, 24 cores (2 x 12c chips) / 48 threads; Intel E5-2650 v4; 2.2 GHz; 512 GB memory, 10 x 460GB SSD. Both servers running favor performance mode with RHEL 7.2 Guests and EDB 9.6. Configurations represent the peak value for specific processor count running 4 VM images: IBM CS822 = 4 vm @ 4 cores and E5-2650 = 4 vm @ 4 cores. Hardware pricing is based on: current market information list pricing, please consult your local Nutanix reseller for more details.
- 3 *Nutanix Delivering Strong Value as a Cost-Effective, Efficient, Scalable Platform for Enterprise Applications*, August 2017. IDC. (www.nutanix.com/go/nutanix-pricing-vs-traditional-infrastructure-tco-roi-report.html)



Please Recycle



Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at www.nutanix.com or follow us on [Twitter@nutanix](https://twitter.com/nutanix).