IBM AIX on IBM Hyperconverged Systems powered by Nutanix

Highlights

- Achieve nimbleness and cost efficiency in AIX environments
- Simplify resiliency
- Take full advantage of virtualization without the limitations

As an enterprise-class UNIX operating system, IBM® AIX® is part of a secure, highly available and adaptable infrastructure that today's global businesses rely on. Engineered for the POWER™ processor architecture, AIX 7.2 runs on IBM Hyperconverged Systems powered by Nutanix and delivers the performance, reliability and security that mission-critical data requires.

With a 30-year history of innovation, AIX continues to fulfill its robust roadmap with every release. The long-standing AIX focus on binary compatibility allows applications to run unchanged and without recompilation on the newest releases.

AIX maintains a strong security focus and reputation. Security features include Trusted AIX to easily harden the security settings of the system and Trusted Execution to control the integrity of the system.

Also, AIX boasts best-in-class reliability and is well recognized as having the lowest unplanned downtime year after year[1]—IBM servers are consistently considered the most reliable by industry analysts.[2]

Focus on applications, not infrastructure

Nutanix Enterprise Cloud software enables simple management, nimbleness and cost efficiency for AIX environments, allowing IT experts to spend more time optimizing performance and extracting insight from applications and data. It does this through:

- **Cloud-oriented design**. Bring the latest innovations from web companies to the on-premises data center to enable endless, predictable scale-out resources and built-in self-healing.
- **Building block approach**. Start small and grow linearly by adding nodes one at a time, allowing IT to only buy what's needed—shrinking the data center footprint for OpEx and CapEx savings.
- **Simple management**. Installation, deployment, backup and ongoing management are done with just a few clicks, speeding up application deployment, administration and capacity expansion.

IBM AIX 7.2 runs on IBM Hyperconverged Systems powered by Nutanix software using the IBM OpenPower LC Systems platform and POWER architecture. They 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 AIX applications running on IBM Power Systems.™

Eliminate bottlenecks

AIX deployments can expand quickly as new users or workloads are added. By using IBM Hyperconverged Systems, you start small and scale out without worrying about the bottlenecks that occur with traditional architectures.

Administrators can scale existing IBM Hyperconverged System clusters or deploy new clusters in minutes with less concern for compute, storage and network bottlenecks. Each additional node delivers predictable performance. Because of its distributed architecture, an IBM Hyperconverged Systems powered by Nutanix cluster prevents one workload from starving another, allowing the infrastructure to be shared, if desired.

In concert with Power Systems, Nutanix Enterprise Cloud software takes full advantage of server virtualization without the limitations of other solutions.

Ease of DevOps

- **Data locality**. Nutanix continuously monitors data access patterns and places data in the most appropriate location.
- **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 purchases of IBM Hyperconverged Systems powered by Nutanix, eliminating virtualization licensing costs.
- **Self-healing infrastructure**. A Nutanix enterprise cloud is resilient by design. If a drive or node fails, workloads are automatically restarted and full resiliency is restored quickly without operator intervention, protecting applications from unplanned downtime.
- **Built-in availability**. Data protection, disaster recovery and high availability are integral to the Nutanix environment, delivering higher application availability with less time and effort.
- **One-click management**. With Nutanix Prism, systems administrators monitor and manage all infrastructure from a single pane of glass, gaining full visibility of storage, CPU and memory resources across IBM Power and Intel x86-based servers. One-click software, hypervisor, and firmware upgrades and one-click problem remediation take the pain out of day-to-day operations.
- **Infrastructure fit**. Put your most data intensive workloads on the servers that were born to run them with IBM Hyperconverged Systems powered by Nutanix.

Increase security without adding silos

To ensure the security of sensitive data, many system administrators find they have no choice but to deploy dedicated infrastructure for each application. However, AIX applications can be deployed securely on IBM Hyperconverged Systems powered by Nutanix with other workloads, avoiding the need for a separate silo of infrastructure.

Also, 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

✓ **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

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1 "ITIC 2017 Global Reliability Survey Mid-Year Update," June 2017. ITIC. https://cloud.kapostcontent.net/pub/a493986a-98ae-4d7f-8437-a383bad7895f/itic-2017-global-server-hardware-server-os-reliability-report.pdf

2 "2017 ITIC Global Server Hardware Server Reliability Report: IBM Power Systems Results Summary," June 2017. ITIC. www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=POL03276USEN

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)

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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.