

IBM introduces X6 architecture, optimizes X86-based servers for cloud, analytics

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IBM today announced the sixth generation of its enterprise X-Architecture for System x and PureSystems servers, providing industry-leading improvements in the performance and economics of x86-based systems for analytics and cloud.

"Our enterprise X-Architecture for x86-based servers and solutions delivers high performance and the highest customer satisfaction in the industry, making us number one in high-end x86 systems," said Adalio Sanchez, general manager for IBM x-86 and PureSystems Solutions.

"We continue to innovate and deliver leadership performance, reliability and investment protection for mission-critical workloads with X6."

Clients are rapidly adopting analytics for greater business insight and moving critical workloads like ERP, analytics and database to the cloud for increased efficiency and lower costs, and x86-based systems are the first choice for many. The X6 architecture represents IBM's continuing R&D investment and industry leadership in x86-based systems, and is specifically designed to provide new levels of performance and resiliency for enterprise applications. For memory-hungry applications, X6 delivers three times the scalable memory of current competitors' and IBM x86-based systems to support cloud and analytics.

The X6 architecture is:

- Fast, with integrated eXFlash memory-channel storage—an

industry first, this DIMM-based storage provides up to 12.8 terabytes of ultrafast flash storage close to the processor, increasing application performance by providing the lowest system write latency available, essential for analytics applications. X6 can provide significantly lower latency for database operations, which can lower licensing costs and reduce storage costs by reducing or eliminating the need for external SAN/NAS storage units;

- Agile, with a modular, scalable design that supports multiple generations of CPUs
- — another industry first—and can reduce acquisition costs, up to 28 percent in comparison to one competitive offering. X6 provides stability and flexibility through forthcoming technology developments, allowing users to scale up now and upgrade efficiently in the future. Fast set-up and configuration patterns simplify deployment and life-cycle management;
- Resilient, with features that can help extend cloud delivery models to mission-critical applications. Memory and storage increase virtual machine capacity to allow SaaS delivery of applications. Autonomous self-healing CPU and memory systems maximize application uptime by proactively identifying potential failures and taking action to correct them. In addition, Upward Integration Modules can help reduce the cost and complexity of system administration by allowing operators to perform management tasks through virtualization tools.

Server models supported by this new architecture currently include the System x3850 X6 four-socket system, System x3950 X6 eight-socket system, and the IBM Flex System x880 scalable compute nodes. IBM also is introducing the System x3650 M4 BD storage server, a two-socket rack server supporting up to 14 drives delivering up to 56 terabytes of high-density storage—the largest available in the industry. It provides 46 percent greater performance than previous comparable IBM

System x servers and is ideally suited for distributed scale-out of big data workloads.

New Solutions for X6

Clients moving enterprise applications to cloud models and adopting analytics for quick business insights require integrated solutions for fast deployment, efficiency and performance. To help clients achieve these results, IBM is announcing new solutions for its X6 architecture for analytics, database and cloud deployment, including IBM System x Solution for DB2 with BLU Acceleration on X6 for accelerating analytics, IBM System x Solution for SAP HANA on X6 for analytics, and System x Solution for VMware vCloud Suite on X6 for infrastructure-as-a-service capabilities.

New Storage for cloud, analytics

IBM has announced the general availability of the new IBM FlashSystem 840. The new system provides nearly double the bandwidth and double the performance—1.1M IOPS—of its predecessor, the FlashSystem 820—making it ideally suited for analytical databases, virtualization infrastructures, and public and private clouds. Supporting up to 48 terabytes of usable capacity in a 2U unit, the all-Flash array also features IBM MicroLatency technology that significantly speeds data access times from milliseconds to microseconds (less than 135 microseconds) giving organizations faster actionable insights from real-time data [analytics](#). In addition, a new management GUI - as well as datacenter-optimized features such as hot-swap components and concurrent code load - enable fast installation and easy management.

IBM also is introducing the FlashSystem Enterprise Performance Solution, which bundles the FlashSystem 840 and IBM System Storage

SAN Volume Controller (SVC) technology. The solution includes a suite of advanced data management features ranging from Real-time Compression, snapshots, thin provisioning, VAAI, and application aware copies, to FlashCopy, and storage virtualization with IBM Easy Tier.

New SDE capabilities for cloud

IBM is strengthening its software defined environment (SDE) portfolio with the introduction of IBM Platform Resource Scheduler for private and hybrid IBM SmartCloud clients who want to accelerate time-to-results, improve infrastructure flexibility and reduce operating costs. IBM Platform Resource Scheduler provides a fully virtualized, open and programmable architecture that ensures enterprises are taking advantage of all available IT resources—from application software licenses to available network bandwidth.

Integrated with OpenStack, this dynamic resource management tool provides a comprehensive set of intelligent, policy-driven scheduling features that automatically allocate the right resources to the right job, balances workload demand with infrastructure supply and ensures adherence to service level agreements, improving overall application performance and efficiency. The open and extensible architecture also allows enterprises to easily reconfigure and add customized policies to meet their specific sharing and scheduling needs.

Provided by IBM

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