#### Communiqués de presse

# IBM dévoile l'architecture X6 et optimise les serveurs X86 pour le Cloud et l'Analytique

**Paris, France - 16 janv. 2014:** IBM (NYSE: <u>IBM</u>) annonce aujourd'hui **X6**, la sixième génération de son architecture d'entreprise X-Architecture pour les serveurs x86 IBM <u>System x</u> et <u>PureSystems</u>.

**Premiers serveurs x86 du marché dotés d'une mémoire cache en flash** (eXFlash Memory-Channel Storage), ils sont optimisés pour le Cloud, les applications en SaaS, les bases de données et l'analyse à haute performance.

Leur conception modulaire contribue à réduire les coûts d'acquisition et assure une durée d'utilisation sur plusieurs générations de technologies.

Les solutions qui bénéficient de cette architecture X6 sont les IBM System x Solutions à quatre ou huit sockets pour SAP HANA, DB2 avec BLU Acceleration ou VMware vCloud Suite.

IBM renforce son avance dans le domaine du <u>stockage en Flash</u> en mettant notamment sur le marché l'**IBM FlashSystem 840**, d'une capacité de 48 Terabytes à 1.1 M I/O par seconde, idéal pour les bases de données analytiques au sein d'un Cloud public ou privé.

**IBM Platform Resource Scheduler** - logiciel d'optimisation dynamique des ressources et d'équilibrage de charges dans un environnement OpenStack – vient compléter aujourd'hui la gamme de solutions Software-Defined d'IBM.

#### Financement des solutions Cloud et analytiques

IBM Global Financing propose des solutions de financement flexibles et innovantes -pour les logiciels et matériels IBM et non-IBM et les services IBM - afin de faciliter les projets Cloud, Analytique, mais aussi Mobile et Social Business des clients. Ces offres, comme par exemple la location avec valeur résiduelle ou la facilité de paiement à taux 0% sur 12 mois sur certains produits, permettent de préserver la trésorerie des clients et d'accélérer le seuil de rentabilité des projets\*.

\*Offres de location et d'ouverture de crédit, sous réserve d'acceptation du dossier par IBM Global Financing.

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#### IBM Introduces X6 Architecture, Optimizes x86-Based Servers for Cloud, Analytics

Industry-first integrated flash storage for high performance, modular design for long life cycles to help reduce costs, improves resiliency for increased uptime

## New IBM FlashSystem 840 doubles performance, ideal for virtualization and cloud

**Armonk, N.Y. - 16 Jan 2014:** IBM (NYSE: <u>IBM</u>) today announced the sixth generation of its enterprise X-Architecture for <u>System x</u> and <u>PureSystems</u> servers, providing industry-leading improvements in the performance and economics of x86-based systems for <u>analytics</u> and <u>cloud</u>.

"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, IBM x86 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. [1]

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; [2]
- 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. [3] 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 selfhealing 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. [4]

## 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. [5] 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.

## Financing for cloud and analytics

IBM Global Financing has announced new financing offerings today to help clients quickly adopt new cloud and analytics solutions by helping reduce upfront costs and speed return on investment. Credit-qualified clients can obtain Fair Market Value leasing when acquiring X6 architecture solutions. Other offerings announced include 0percent financing and deferred payments for 90 days when they acquire IBM PureSystems, SDE and Storage technology.

Also, IBM's new mobile financing application can help IBM Business Partners close more business with their clients, allowing credit-qualified clients to acquire financing to deploy solutions for analytics, mobile computing, social business and Smarter Planet technologies quickly.

<u>IBM Systems and Technology Group</u> offers a full range of offerings supporting public, private and hybrid cloud implementations that integrate with IBM's cloud software and services. This Systems portfolio includes IBM <u>System x</u> racks and <u>BladeCenter</u>, <u>NeXtScale</u>, <u>PureFlex</u>, <u>Power Systems</u> and <u>System z</u> servers, and IBM <u>Storage</u> solutions. For more information on IBM Global Financing, <u>please go here</u>.

Images supporting today's announcements can be found at this link.

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[1] Triple the memory capacity (Up to 6TB in 4S system; up to 12TB in 8S system) and support up to 24 DDR3 DIMMs per socket and up to 64GB LRDIMM density, based on published Intel specifications, compared with x86 competitors with offerings based on Intel's current processors.

[2] 5-10 microseconds write latency for eXFlash DIMMs in preliminary testing vs. 15-19 microseconds latency for PCIe-based flash storage from Fusion IO, Micron, and Virident, and 65 microseconds latency for Intel S3500 and S3700 SSDs. (Pending final IBM performance testing.)

Using internal eXFlash storage reduces or eliminates the need for external SAN/NAS storage. Less SAN hardware means fewer software licenses.

[3] 28 percent acquisition cost savings based on pricing of x3850 X6 at announcement on 2/18 vs. current

pricing of a comparable x86 based system that includes 2 x Intel Xeon E7-4820 (v1) processors, 1TB of memory (16GB RDIMMs) 3.6TB of HDD storage, and Dual Port 10GBe SFP+ controller. x3850 X6 includes 2 Compute Books, 2 x Intel Xeon E7 processors, 1TB of memory (16GB RDIMMs), 3.6TB of HDD storage, and Dual Port 10GBe SFP+ controller.

[4] Compared to HP two-socket servers supporting a maximum of 48 TB storage with 12 x 3.5" drives, and Dell two-socket servers supporting a maximum of 51.2 TB storage with 12 x 3.5" and 2 x 2.5" drives.

46-percent figure based on Intel Internal Test Report #1310, using SPECjbb\*2013 benchmark, July 2013.

[5] The performance data discussed herein is presented as derived under specific operating conditions by IBM. Actual results may vary.