

## **IBM présente le zEnterprise EC12, le système le plus sécurisé pour le cloud computing et pour le traitement des données critiques de l'entreprise**

**Des avancées technologiques qui permettent d'accroître encore le leadership du mainframe et en font le système incontournable pour traiter les données critiques des entreprises**

**Paris, France - 28 août 2012:**

- Ce nouveau System z, conçu grâce aux innovations des laboratoires de recherche d'IBM, offre de nouvelles capacités inégalée dans la sécurité et de l'analytique, et améliore de façon significative la performance du cloud computing.
- Le zEC12 offre plus de performance (+25% par cœur), plus de 100 cœurs configurables, augmentant ainsi de 50% la capacité totale du système comparé à son prédécesseur.
- Le zEC12 est le fruit d'un investissement de plus d'un milliard de \$ en R&D et de la collaboration avec les clients IBM pour relever les défis associés aux systèmes d'entreprise actuels.

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### **IBM Unveils zEnterprise EC12, a Highly Secure System for Cloud Computing and Enterprise Data**

*Technology Breakthroughs Extend the Mainframe's Leadership as the Enterprise System for Critical Data*

- New, cutting-edge System z® capabilities for security and analytics dramatically boost cloud performance with help from IBM Research innovations.
- zEC12 offers 25% more performance per core, over 100 configurable cores and 50% more total capacity than its predecessor.
- The result of over \$1 billion in IBM R&D investment and collaborative client input on today's enterprise system challenges.

**ARMONK, NY - August 28, 2012:** IBM (NYSE: IBM) today announced the zEnterprise® EC12 mainframe server, the most powerful and technologically advanced version of an IBM system that has been the linchpin of enterprise computing for 48 years. The new enterprise system features first-of-a-kind technologies that demonstrate IBM's ongoing commitment to meet the growing need to secure and manage critical information with the System z mainframe.

Mainframes support significant portions of the data environment at most large enterprises. As these enterprises grapple with the well-documented growth of data, they are looking for new ways to secure and gain insights from such critical information as financial, customer and enterprise resource data that will enable them to provide their clients with new services. The new zEC12 offers industry-leading security and robust support for operational analytics that can help clients efficiently sift through large volumes of raw data and transform it to gain knowledge that can be used for competitive advantage. For example, a retailer managing online transactions on zEC12 can gain insights from client information that will enable it to provide clients with a more customized shopping experience.

The IBM zEC12 enterprise system is the result of an investment by IBM Systems and Technology Group of more than \$1 billion in IBM research and development primarily in Poughkeepsie, New York as well as 17 other IBM labs around the world and in collaboration with some of IBM's top clients.

The new IBM mainframe is one of the most secure enterprise systems ever (1), with built-in security features designed to meet the security and compliance requirements of different industries. With operational analytics and near real-time workload monitoring and analysis, clients can use the new zEC12 for a variety of workloads, including hybrid clouds that can take advantage of the System's 25% more performance per core, the world's fastest chip running at 5.5 GHz and 50% greater total system capacity (2).

### **Ultimate Security for Critical Information**

IBM System z is a leading platform for secure data serving and the only commercial system to achieve Common Criteria Evaluation Assurance Level 5+ security classification, providing clients the confidence to run many different applications containing confidential data on a single mainframe. The new zEC12 builds on this with innovative security and privacy features to protect data at rest or in flight -- a critical capability in the age of Internet banking and mobile devices.

zEC12 includes a state-of-the-art, tamper-resistant cryptographic co-processor called Crypto Express4S that provides privacy for transactions and sensitive data. Crypto Express4S includes new hardware and software developed with IBM Research to meet the security requirements of different industries and geographies. For example, it can be configured to provide support for high quality digital signatures used with applications for Smart passports, national ID cards and online legal proceedings, replacing handwritten signatures as directed by the EU and the public sector.

SC Data Center Inc. provides services to Colony Brands Inc., one of the world's largest and most successful catalog companies, and uses encryption technology on zEnterprise to protect its call center applications when it services customers and takes orders, protecting its e-commerce platform that relies on System z for all sales and credit transactions and moves sensitive data safely to other platforms for processing.

### **Operational Analytics Drive Business Insights**

zEC12 advances performance for analytics, increasing performance of analytic workloads by 30% compared to its predecessor (3). In addition, support for the IBM DB2 Analytics Accelerator that incorporates the Netezza data warehouse appliance into zEC12 enables clients to run complex business analytics and operational analytics on the same platform.

The new mainframe also offers IT systems analytics capabilities based on technology from IBM Research. It analyzes internal system messages to provide a near real-time view of the system's health, including any potential problems. Called IBM zAware, the technology learns from the messages to recognize patterns and quickly pinpoint any deviations, using the information to identify unusual system behavior and minimize its impact. IBM STG Lab Services will offer services to help with planning, configuration and implementation of IBM zAware.

### **Large-Scale Cloud Capabilities**

The mainframe's leading virtualization capabilities make it well suited to support private cloud environments. Clients can consolidate thousands of distributed systems on to Linux on zEC12, lowering IT operating expenses associated with energy use, floor space and software licensing.

zEC12 offers a low total cost of acquisition for Linux consolidation of competitive database workloads. And zEnterprise can save up to 75 percent on energy costs compared to x86 alternatives (4). One zEC12 can encompass the capacity of an entire multi-platform data center in a single system.

As one of the world's most secure systems, with features that meet the security and compliance requirements of different industries, the new mainframe also enables clients to run traditional IT and private cloud applications on one system.

### **More zEC12 Innovations**

zEC12 is the first IBM mainframe to include internal solid state technology with Flash Express, a new memory technology that can help improve the performance of data intensive applications or workloads where optimal service levels are vital such as customer facing or service applications used by banks, public sector companies and retailers. It's designed to provide improved availability during bursts of system activity experienced at transitional periods such as when financial markets open or holiday periods when online retail transactions are heavy.

Clients can also opt to run zEC12 without a raised datacenter floor -- a first for high-end IBM mainframes. With new overhead power and cabling support, clients have more flexibility on where zEC12 is deployed. This can increase the appeal of System z for enterprise clients in growth markets, where System z business was up 11% in the second quarter of 2012, per IBM earnings (link to <http://www.ibm.com/investor/2q12/index.phtml>).

zEC12 is the first general purpose IBM server to incorporate transactional memory technology, first used

commercially to help make the IBM Blue Gene/Q-based “Sequoia” system at Lawrence Livermore National Lab the fastest supercomputer in the world (5). In zEC12, IBM adapted this technology to enable software to better support concurrent operations that use a shared set of data such as financial institutions processing transactions against the same set of accounts.

*“We continue to drive innovation on System z, allowing a broader set of clients to apply its leadership capabilities in security and resiliency to the current demands of their business, be they from analytics, cloud or mobile computing,” said **Doug Balog, general manager IBM System z.** “Our end-to-end design approach for smarter computing -- from processors to systems to software optimization -- is targeted to handle complicated business challenges associated with managing, protecting and analyzing a client's most critical information. It's what makes the mainframe the ultimate enterprise system.”*

### **zEC12 Furthers Hybrid Computing**

In 2010, IBM introduced hybrid computing with the launch of the IBM zEnterprise System and the IBM zEnterprise BladeCenter Extension (zBX) to allow enterprises to deploy and integrate workloads across mainframe, POWER7 and System x servers. Using zEnterprise Unified Resource Management, these diverse resources can be managed as a single, virtualized system.

Today, IBM introduced the zBX Model 003 to help extend customer's ability to run integrated and dynamic workloads. With simplified operational control and an integrated, high-performance, private and secure network, the zBX Model 003 is designed to run with zEC12. Like its predecessor, the latest zBX includes specialty processors for specific workloads such as the IBM WebSphere DataPower Integration Appliance XI50 for zEnterprise, IBM DB2 Analytics Accelerator and select IBM BladeCenter servers.

To date, IBM has shipped over 150 zBX units with 1,100 blade servers to clients, enabling them to take advantage of the management and reduced complexity of hybrid computing on the platform. Consolidating disparate systems on zEC12 can reduce clients' total cost of ownership by up to 55% compared to a current distributed data center (6).

### **Industry Solutions for System z**

IBM also announced today it is growing its portfolio of System z industry-focused solutions that package software from IBM or ISV partners and services or assets from IBM Global Business Services. These include the IBM Intelligent Operations Center for Smarter Cities, IBM Health Plan Integration Hub, two IBM Smarter Analytics: Anti-Fraud, Waste and Abuse Solutions – one for healthcare, one for insurance -- and the IBM Genelco Insurance Administration Solution™. Offering these solutions on System z can allow clients to benefit from the mainframe's oft-touted advantages of high-availability, resiliency and security.

## Services and Financing for zEC12

One of the hallmark benefits behind IBM System z is its powerful business continuity features, especially important today in light of the industry's ongoing appetite for resilient cloud computing environments. To help clients build private clouds more rapidly, IBM today announced new implementation services for Linux-based clouds on the mainframe. The new services deliver unique IBM processes, tools, skills and best practices that enable a fast and accurate implementation. To help current mainframe clients looking to upgrade to zEC12, IBM also offers newly enhanced setup and migration services to drive more long term economic value from their system investments.

IBM Global Financing (IGF) can help clients evolve and grow their zEnterprise investments with financing that promotes greater flexibility, lower total cost of ownership and predictability of payments.

For example, to help credit-qualified clients easily acquire the new zEC12 systems solution, IGF is making available a range of affordable financing options:

- For clients who own or already lease their System z solution: IGF will help finance the upgrade and provide greater flexibility to meet future capacity requirements.
- For clients considering a move to a System z solution: IGF offers affordable, customized financing for the migration and acquisition of the new platform solution. IGF can also bundle IBM and non-IBM hardware, software and services costs into single, predictable periodic payments. Additionally, IGF/ Global Asset Recovery Services can buy back the client's non-IBM servers at market value.

Credit-qualified clients that elect financing and install their zEC12 solution by December 31, 2012 can see immediate benefits with zEC12 while deferring their first payment for 6-months.

1.) Based on Common Criteria Evaluation Assurance Level 5+ security classification. IBM z/OS® including RACF® and System z® PR/SM™ have been evaluated under Common Criteria (an ISO/IEC 15048 standard). z/OS V1.12 was awarded Common Criteria at EAL4+. PR/SM was awarded Common Criteria at EAL5+ and z/OS V1.12 RACF also achieved an EAL5+ Common Criteria evaluation, meeting some of the industry's toughest security standards. For more details about protection profile testing see [www.atsec.com](http://www.atsec.com). Security targets are also published on the [www.bsi.bund.de](http://www.bsi.bund.de) (DE) Web site.

2.) Compared to previous generation system, IBM zEnterprise 196.

3.) Compared to previous generation system, IBM zEnterprise 196.

4.) Based on zEnterprise comparison to virtualized x86 alternative. See more details on <http://www-03.ibm.com/systems/z/advantages/energy/>.

5.) According to the TOP500 list, [www.top500.org](http://www.top500.org).

6.) Based on IBM analysis of a large Financial Services company Datacenter. Deployment configurations based on IBM studies and will vary based on workload characteristics. Price calculations based on publicly available US list prices, prices will vary by country. Individual client results may vary.

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