

Smarter Computing:  
What's Next. Ready Now.



## THE IBM zENTERPRISE 2013 FACT SHEET

### System z Market Differentiation

- Since 2Q 2001, System z has maintained the quarterly share leadership of the High End server segment.
- Since 2Q 2001, System z has maintained its share leadership against HP and Oracle with 40% share for the quarter. *IDC*
- System z installed capacity has more than doubled since 2006.
- 25 out of the top 25 worldwide banks use System z. *Based on 'The Banker,' System z install base and financial records*
- 97 out of the top 100 worldwide banks use System z.
- 10 out of the top 10 insurance organizations use System z. *Based on IBM market development & insights documentation on top 10 insurance companies, ranked by non-banking assets*
- 21 out of the top 25 global insurance organizations use System z.
- 23 out of the top 25 global retail organizations use System z
- Over 275 hybrid computing units have shipped since 3Q10.
- Over three quarters of IBM's Top 100 clients have installed IFLs. (IFL = Linux-on-z Only Engine)
- More than 7,400 ISV applications run on IBM System z; 55 new ISVs added in 1H13.

### zEnterprise BC12 Market Differentiation

#### Performance

- zBC12 and IBM DB2 Analytics Accelerator can perform business analytic workloads with response times up to nine times faster, with 10 times better price performance, and 14 percent lower total cost of acquisition than the closest competitor. *Source: Customer Study on 10TB BIDAY data running 161,166 concurrent reports. Intermediate and complex reports automatically redirected to IBM DB2 Analytics Accelerator for z/OS. Results may vary based on customer workload profiles/characteristics.*
- The Enterprise Linux Server (ELS) includes hardware, a z/VM Hypervisor and three years of maintenance. The system can leverage a portfolio of over 3,000 Linux applications, and clients can extend it with two new solutions, ELS for Analytics and Cloud-Ready for Linux on System z.
- zBC12 can consolidate up to 40 virtual servers per core or up to 520 in a single footprint for as low as \$1.00 per day, per virtual server. A single zBC12 can save clients up to 55 percent over x86 distributed environments. *Dependent on workload and customer configuration. Values derived from customer real use data, with extrapolation to zBC12*
- Security on System z can reduce TCI as much as 63% over other platforms and perform up to 12,000 SSL handshakes per second with the highest level of protection for a commercial server. *\*Tracked, Hacked and Attacked, Solitaire Interglobal Ltd, 2013*
- 36% boost per core - Faster 4.2 GHz core (vs. 3.8 GHz on z114) along with improved cache design (2x) and new hardware function to boost software performance.
- 58% more CP capacity - Provides exceptional scale in smaller footprint with up to 6 CPs (vs. 5

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CPs on z114) for z/OS, z/VM & z/VSE workloads.

- 62% more available capacity for Linux workloads - With up to 13 Linux cores (vs. 10 on z114) and 27% price performance improvement on IFLs provides great environment for consolidation and software license cost reduction.
- 2X RAIM memory increase – Up to 496 GB of RAIM fault tolerant memory (vs. 248 GB on z114) for increasingly memory-intensive workloads such as DB2, WebSphere and Linux.

### Value

- Still starting as low as \$75K USD hardware entry point, prices may vary by country
- New 2:1 ratio for zIIP and zAAP to CP for improved new workload economics zBC12's highly granular capacity settings allow clients to right-size their systems with a pay-as-you-grow approach.
- 27% P/P improvement for Specialty Engines - Integrated specialty engines significantly lower costs for new workloads.

## Market Trends - Cloud

- 80% of new applications to include cloud delivery or deployment. *Gartner*
- In 2013, cloud will be at the center of digital lives, for apps, content and preferences and syncing across devices. Services to become more important. *Gartner*
- 73% of respondents to a Forrester survey rated consolidating and virtualizing their servers as a high or critical priority. *Forrester*
- Enterprises see private cloud as the on ramp to cloud for the next 24 months. *Syndicated research*

## Market Trends - Mobile

- By the end of 2013, mobile transactions will have increased 50% over the previous year. [http://w3.ibm.com/news/w3news/top\\_stories/2013/03/res\\_investor\\_day\\_2013.html](http://w3.ibm.com/news/w3news/top_stories/2013/03/res_investor_day_2013.html)
- 98% of security leaders cite mobile as their greatest near-term technology worry. [http://w3.ibm.com/news/w3news/top\\_stories/2013/03/res\\_investor\\_day\\_2013.html](http://w3.ibm.com/news/w3news/top_stories/2013/03/res_investor_day_2013.html)
- There are six billion mobile phone subscriptions worldwide. <http://www.networkworld.com/news/2012/113012-idc-predictions-264702.html>
- The number of people accessing the Internet through PCs will shrink by 15 million over the next four years, while the number of mobile users will increase by 91 million. *IDC*
- According to a survey, 61% of enterprises say they will improve mobile capabilities over the next three years. *Gartner*
- Mobile application use can increase worker productivity by up to 45%, with a related increase in employee, partner and customer satisfaction and loyalty. *Aberdeen*
- An estimated 200 million employees are expected to join those already following a “bring your own device (BYOD)” policy at work. *IBM study*
- Connected devices will surge to 22 billion by 2020.

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### Market Trends – IT Security

- 71% of CEOs identify technology change as the most important external force impacting their organizations. *IBM, Leading Through Connections: Insights from the Global Chief Executive Officer Study - May 2012.*
- Over 60% of executives believe that above all else data must be secure beyond the reach of malicious use. *Forrester Study on Data Analytics 2012*
- 88% of executives are concerned about increasing regulatory requirements for information security. *Forrester Study on Security 2013*
- The average cost of a data breach incident is US\$5.5 million. *2011 Cost of Data Breach Study: United States, Ponemon Institute LLC, March 2012*
- The cost of data loss has increased by 68% over the past five years. *Computerweekly.com 03/20/2012*
- External threats are rated as a big challenge with two-thirds of CIOs expected to spend more on security over the next two years. *2011 Cost of Data Breach Study: United States, Ponemon Institute LLC, 03/12*
- The average corporate IT infrastructure is cyber-attacked 60,000 times a day. *2011 Cost of Data Breach Study: United States, Ponemon Institute LLC, March 2012*
- Even the perception of insecure/mishandled data will damage a company's brand. *Forrester paper for IBM*

### Market Trends - Data

- 78% of CIOs want to improve the way they use data making the enablement of data insight to aid intelligent decisions their #1 strategic priority over the next 3-5 years.
- 90% of data on the planet was created in the past two years.  
<http://www.forbes.com/sites/ciocentral/2011/05/27/big-data-big-costs-big-risks-and-big-opportunity/>
- 85% financial services execs indicated most of the source data for driving operational analytics resides on the mainframe. *IBM Global Market View, AIIM Market Intelligence, Economist Intelligence Unit*
- CIO's No. 1 strategic focus over the next 3-5 years is enabling data insight to aid intelligent decisions. *IBM CIO study*
- Demand for analytics is strong as companies seek to optimize processes and improve decision making. *IDC*
- The total hardware, software and services market for data analytics is approaching \$100 billion. *Syndicated research*

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## What Makes The zEnterprise Unique?

- The IBM Mainframe was introduced almost 50 years ago and each model has included innovations and inventions useful in subsequent models. Thus, an application program written 50 years ago for an early model mainframe will run on the newest IBM mainframe having the newest innovations and inventions.
- The IBM zEnterprise EC12 (zEC12) is the world's fastest, most scalable and secure enterprise system, based on 5.5GHz core processor speed.
- The IBM zEC12 achieved a Common Criteria certification at an EAL5+ level - the highest commercially available designation given.
- zEC12 offers 25% more performance per core, over 100 configurable cores and 50% more total capacity than its predecessor.
- Total cost of acquisition (TCA) is 79% less when deploying a private cloud on zEnterprise vs. leading public cloud. *IBM SWG CPO Internal Testing, The Edison Group Whitepaper*
  - The financial impact of consolidation onto System z can be substantial, with savings of up to 70 % in total cost of ownership compared to distributed platforms. *ECM 'Big Green' Project*
  - zEnterprise can manage up to 100,000 virtual servers.  
*IBM calculations of zEnterprise limits across maximum z196 configuration - results may vary*
- zEnterprise helps identify fraud risks in real time and help stops them before they happen.
- 1,082 schools in 67 countries are part of the IBM Academic Initiative for System z.
- The IBM Master the Mainframe contests continue to draw high school, college, and university student participation around the world with 43,825 students from 32 countries.  
<http://www.facebook.com/MasterTheMainframe>
- 3,246 students from 40 countries have taken The IBM System z Mastery Test. This test is offered to students globally in 2012 at no cost.  
<https://www.ibm.com/developerworks/university/systemz/masterytest/FAQ.html>

Contact: Allyson McKenney  
IBM STG External Relations  
914-766-4182  
[amckenney@us.ibm.com](mailto:amckenney@us.ibm.com)