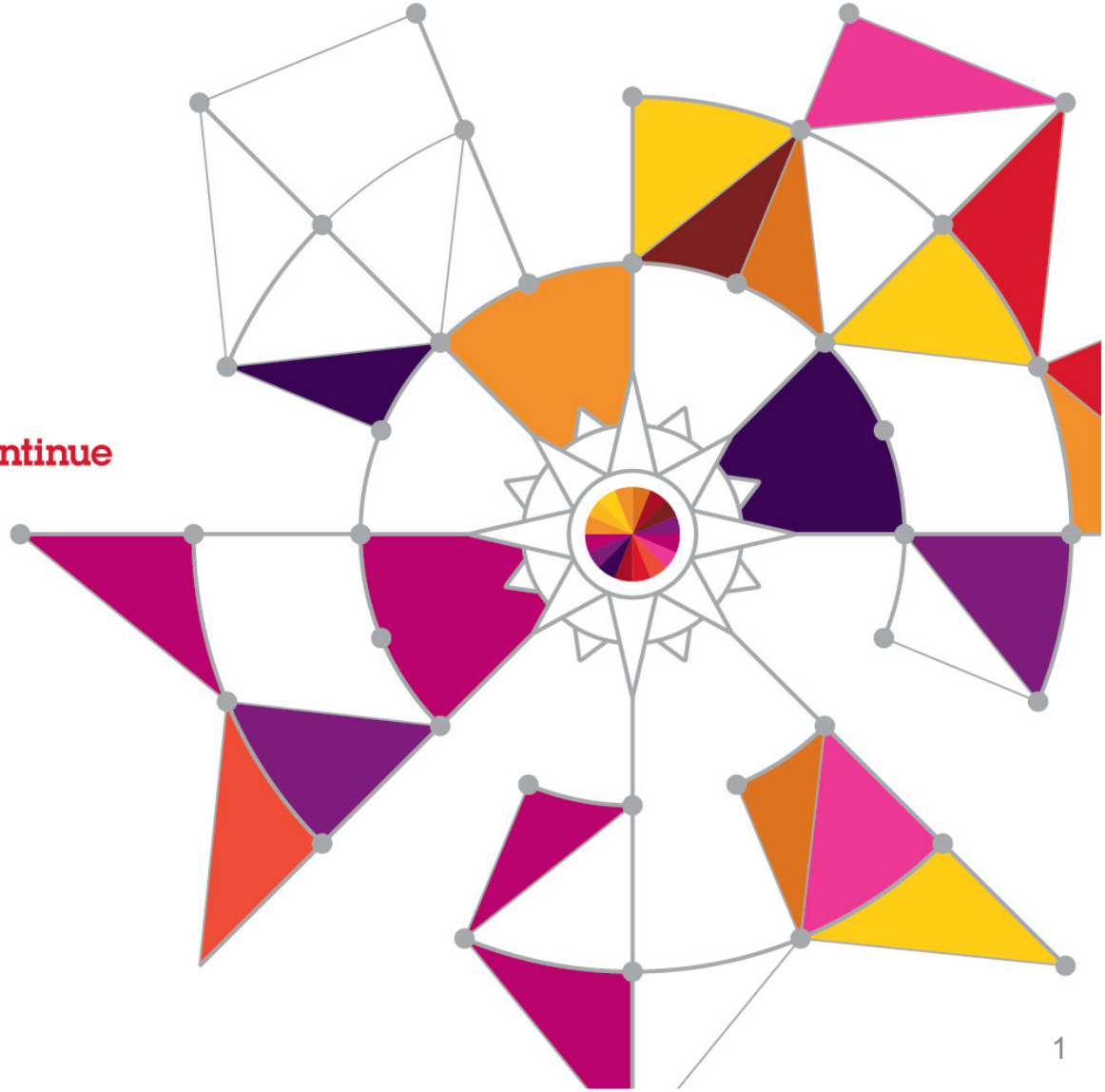
Université du Mainframe

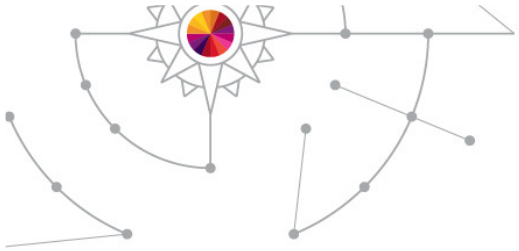
Make the Extraordinary Possible

IBM Mainframe50



Jeudi 10 avril 2014 - L'innovation continue

IBM



Université du Mainframe
Make the Extraordinary Possible
IBM Mainframe50

Alex Gogh

Vice-President IBM Server Solutions,
Systems and Technology Group

IBM

IBM zEnterprise
The Modern Mainframe

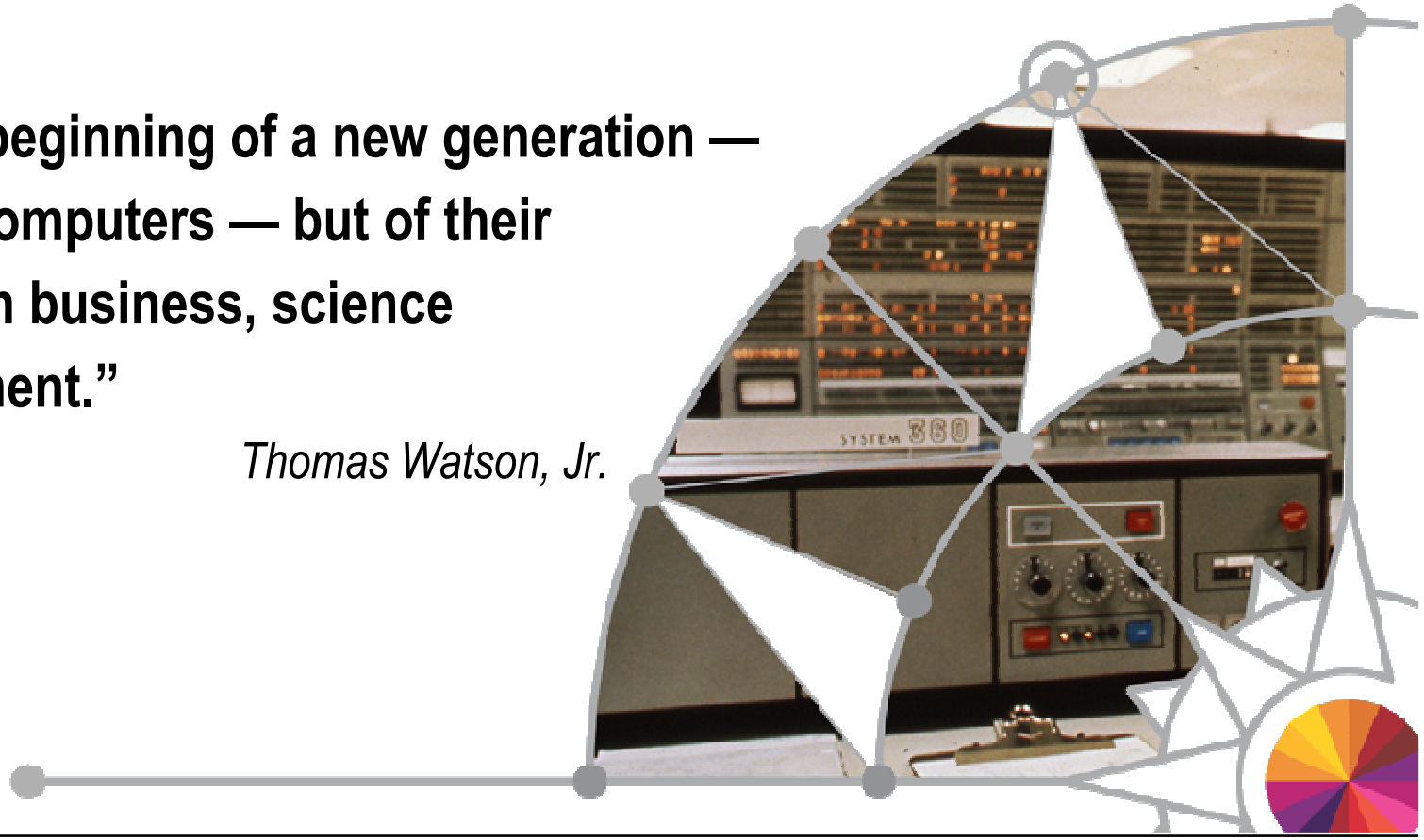
Enabling business leadership
through technology exploitation

Alex Gogh
Vice President, IBM Server Solutions
Systems and Technology Group

It all started with a **$5 billion** dollar bet

"This is the beginning of a new generation — not only of computers — but of their application in business, science and government."

Thomas Watson, Jr.



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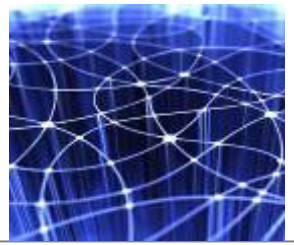
>$25 Billion investment ongoing evolution and transformation

IBM System/360™

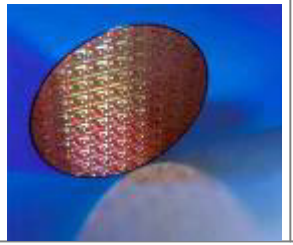
PR/SM Virtualization



CICS, DB2, & IMS

Parallel Sysplex

Bipolar to CMOS

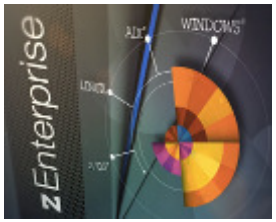


Capacity on Demand

Linux

Java

Hybrid with zBX



IBM DB2 Analytics Accelerator

IBM zEnterprise EC12 & zBC12

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Reshape industries, making the world work better

Up to 3 Billion passengers take flight a year; with 2x that expected by 2030

23 Billion ATM transactions per year

46% Of US Smart Phone users have Barcode scanning Apps

Barcode source: http://www.factbrowser.com/facts/10473/

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The mainframe impact is felt across industries

30 Billion business transactions per day

We all touch the mainframe almost every day…

… ATM withdrawals, to insurance policies

… Paying utility bills to shopping

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1.3 million

Secure CICS Transactions, Every Second, Every Day.

In comparison, there are
68,542 Google searches
every second globally.

One of the top 35 technologies that shaped the industry.

-- Computerworld

CICS source: IBM estimates based on real client usage.
Google source: http://www.statisticbrain.com/google-searches/

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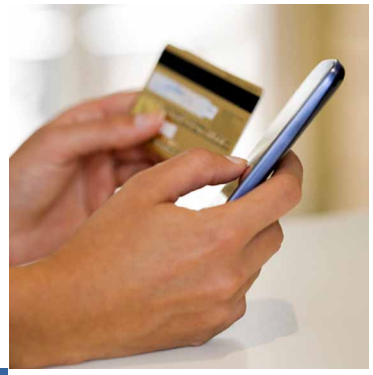
Technology is changing how we live, work and interact

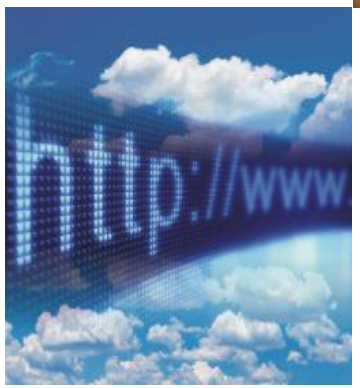


63% of people

expect to be doing more shopping on their mobile devices over the next couple of years

40% of people

socialize more online than they do face-to-face



57% of companies

using cloud to drive competitive and cost advantages

300x growth

of digital content between 2005-2020

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Infrastructure Matters because …

Cloud

Improving the economics of IT through efficiency and delivering new products and services faster

Big Data & Analytics

Handling large volumes of data and driving real-time insights

Mobile & Social

Revolutionizing information sharing and collaboration across the enterprise

Security

Ensuring secure transactions and interactions

© 2014 IBM Corporation

Innovative technology
for the next generation of business leadership

The ultimate **Analytics** engine for instant insight.

The foundation for a **Mobile** and **Social** enterprise.

Superior service at lower cost through **Cloud.**

A robust and **Trusted** infrastructure.

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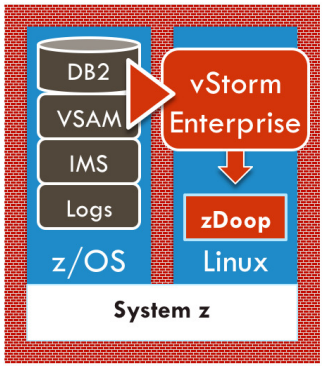
Speed time to value and insight
with new analytics offerings on the mainframe

NEW

Industry's first commercial Hadoop for Linux on System z

- **Veristorm partnership**
- **Analyze System z data** using Hadoop without ever leaving the box
- **2-2-2**; 2 billion records in 2 hours using 2 IFLs



NEW

High Performance Flash Enclosure on IBM DS8870

- Up to **4x increase** in I/Os per second performance over SSD, **30x** over disk
- Accelerate System z database performance by **up to 3.2x;** Shrink batch times by **up to 10%**
- Faster FlashCopy replication with **up to 70% better response time** than disk

NEW

Enhanced File Transfer with DS8870 and IBM Sterling Connect:Direct

- Cut data transfer CPU cost by 50%
- Reduce transfer time by 30%

The DS8870 preview contains statements regarding IBM's current plans, directions, and intent and is subject to change or withdrawal without notice. Availability, prices, ordering information, and terms and conditions will be provided when the product is announced for general availability.

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Build & Integrate enterprise & mobile applications to optimize the customer experience

IBM WebSphere Liberty z/OS Connect

Rapid and secure enablement of web, cloud and mobile access to z/OS assets

Simplified connection
Auditing and chargeback
Discover z/OS assets

Integrates with standard z/OS middleware:

CICS, IMS, WebSphere Application Server Batch, UNIX applications

IBM CICS Transaction Server v5.2

Enhanced mobile protocol support and flexible application lifecycle management in a cloud environment

Mobile quality assurance

Capture tester and live-user experience for building great mobile apps

Continuous integration for System z

Compresses application delivery cycle from months to weeks or days

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

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Drive innovation and productivity through social business on the strength of the Mainframe

71 percent
of CEOs rate their employees as their most important source of sustained economic value[1]

Drive enterprise-wide collaboration

Design and implement social strategies

Empower every employee

IBM

400,000+
IBMers generating vast amounts of information

50 million
instant messages per day

75 percent
lower cost

Scalable
to accommodate rapid growth and enable non-disruptive change

1. The IBM 2012 CEO Study, surveying 1,700 CEOs

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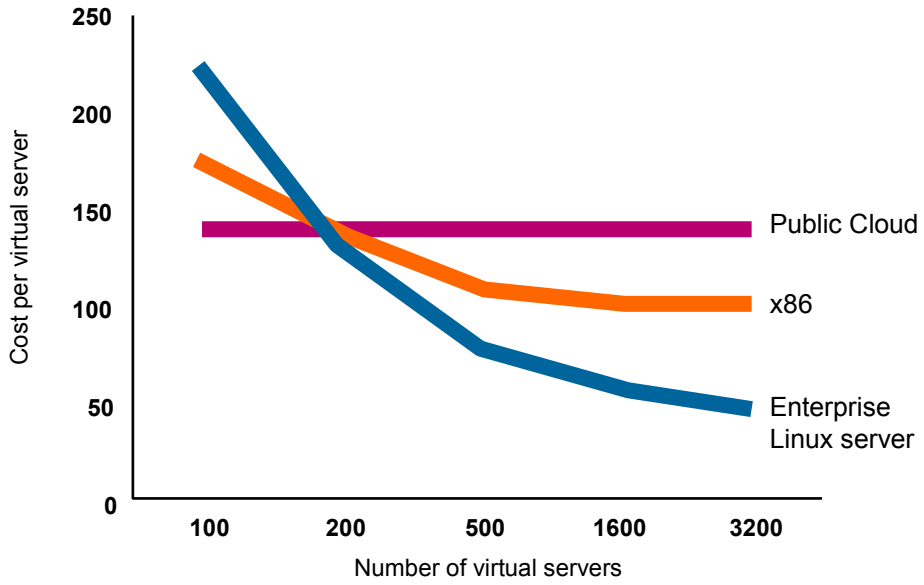
zEnterprise redefines efficiency & economics of IT – enabling new levels of business agility

Delivering superior service at lower cost than legacy x86 or Public Cloud vendors



Nationwide

Saved **$46 million** through consolidation

Cut datacenter costs by **70%**

Algar Telecom

CRN TECH INNOVATOR AWARDS 2012

zEnterprise wins CRN's **Tech Innovators Award for Cloud** Solution

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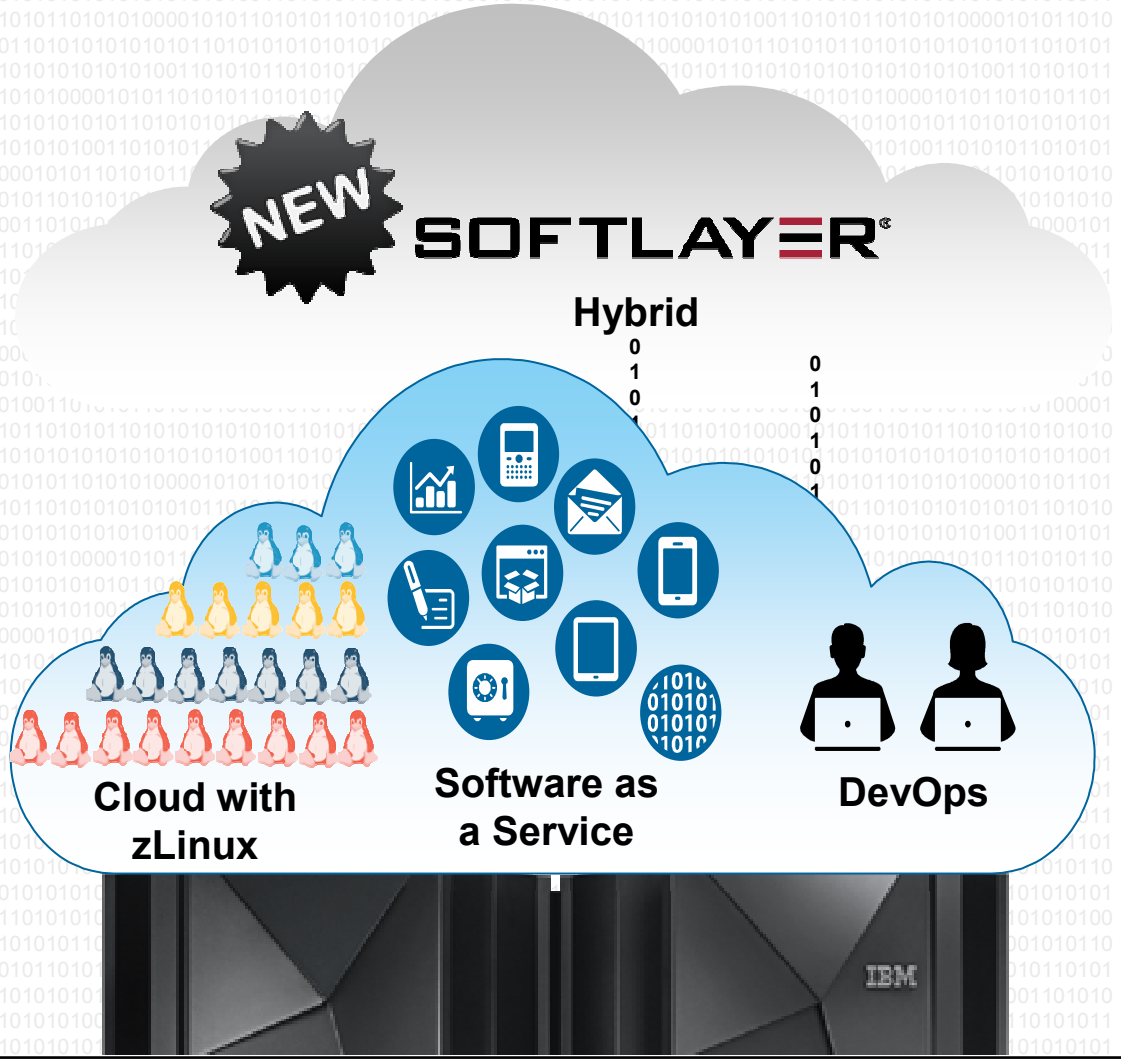
Optimizing the integration of System z and SoftLayer for hybrid cloud



A robust hybrid infrastructure
for greater flexibility and resource optimization

Enables remote workloads to benefit
from many System z strengths

Proven configurations
to deliver on SLAs, minimize network latency and optimize secure connectivity

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Ongoing investment in Linux & Cloud solutions on zEnterprise enables speed, flexibility & efficiency

IBM Enterprise Cloud System

NEW

Integrated solution for rapid deployment of secure & reliable public, private and hybrid cloud

PUBLIC **PRIVATE** **HYBRID**

Pay-as-you-grow Pricing

NEW

Flexible consumption-based pricing for the Enterprise Cloud System

IBM Linux & Cloud Centers of Competency

NEW

Accelerating Cloud & Open Source Adoption on zEnterprise

Local Experts, Global Reach

Solution Showcase & Briefings

Client, BP & ISV Education, Training, Testing and PoC

IBM Wave for z/VM

Manage virtual machines with drag-and-drop simplicity

NEW

© 2014 IBM Corporation

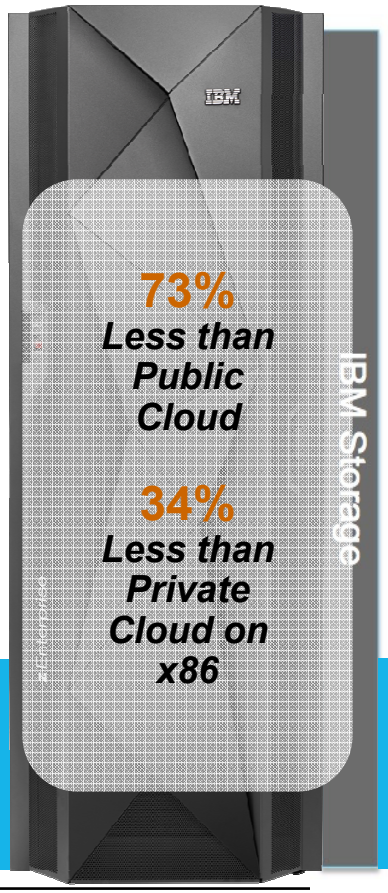
IBM Enterprise Cloud System

yields the lowest cost

Standard Linux Environment
- *Red Hat/SUSE*
- *3000+ Applications*

Fully Automated Cloud Management Suite

Hypervisor and Virtualization Management



73% Less than Public Cloud

34% Less than Private Cloud on x86

Utility Pricing and MSP Flexible Financing

Trusted, 24/7 IBM Support

Award Winning Hardware Design

CRN TECH INNOVATOR AWARDS 2013

LINUX JOURNAL 2013 Readers' Choice

- **Factory Integrated**
- **Delivered in 30-45 Days**
- **Production Ready in Hours**

- **Scale up to 540 VMs**
- **99.99% Availability**
- **Proven Security**

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A trusted infrastructure is essential for a cloud, analytics, mobile & social-enabled business

zEnterprise delivers trust and confidence with unmatched security and reliability

Highest
assurance level of security with Common Criteria certification (EAL 5+)

Enterprise Key Management
across mainframe and distributed

Encryption
of data at rest, in flight, and in use

IBM Security zSecure SSE ENHANCED

Prevent malicious computer attacks with enhanced security intelligence and compliance reporting, with up to **70% savings**

IT Analytics
to spot potential failures and capacity needs before they occur

99.999%
design point for application availability

Zero Second
recovery point objective across thousands of miles

1. IBM's Institute for Business Value 2010 Global IT Risk Study 2. IBM 2012 CISO study

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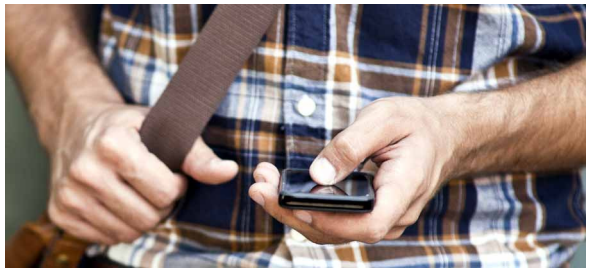
IBM Mainframe: the next generation

of people

of technology



of projects

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ISVs are healthy and growing with

7,600+ ISV-partner applications

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The Academic Initiative: Recruiting, teaching, and developing the future Generation Z talent pool.

1000+
Schools

180,000+
Students

70
Countries

25,000+
Jobs

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Enabling Generation z:
Massive Open On-line Courses (MOOCs)

Online courses will be open
to anyone, anywhere, anytime,
all 100% free.

THE LINUX FOUNDATION

MARIST

SYRACUSE UNIVERSITY

The Future of Next Gen Mainframe Systems

Atomic level storage

Cognitive Systems

Optical circuits

Neuro Synaptic chip

Greater parallelism

Hybrid clouds

Natural intuitive interfaces

Self check-pointing and invisible failover

Tamper proof processing

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Innovative technology for the next generation of business leadership

"This is the beginning of a new generation—not only of computers—but of their application in business, science and government."

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