



The Language of z

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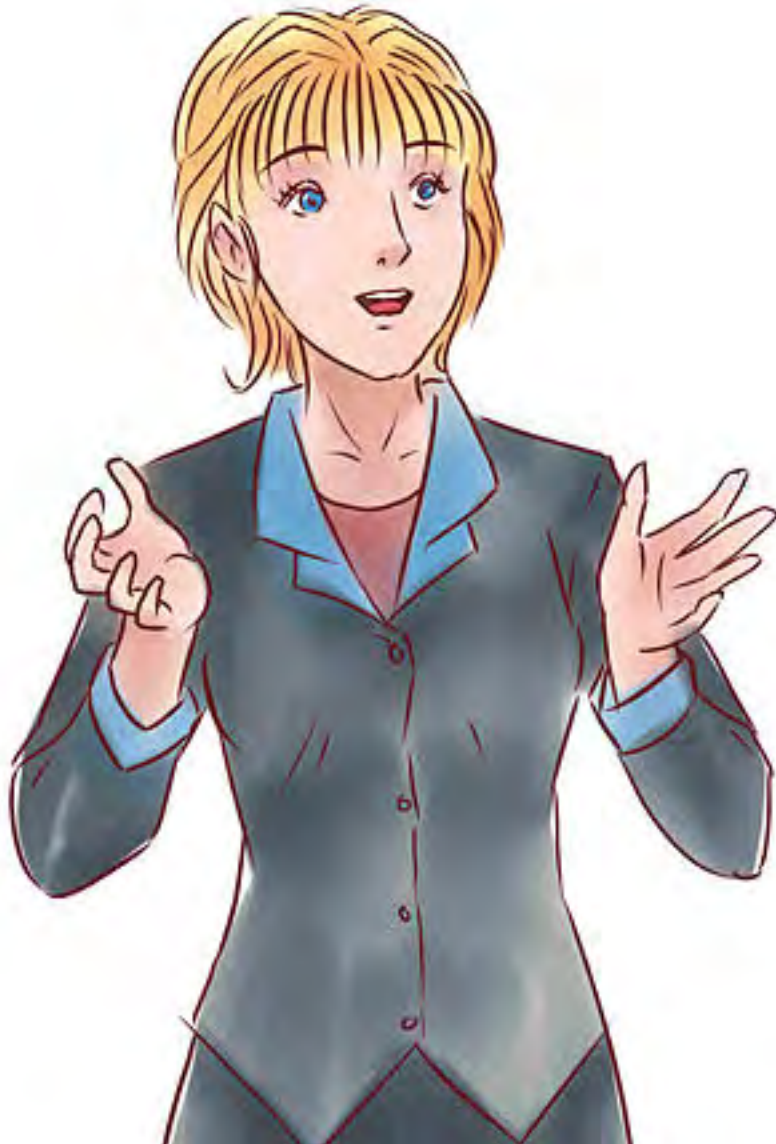


The Language of z

Once you have completed this module, you should be able to:

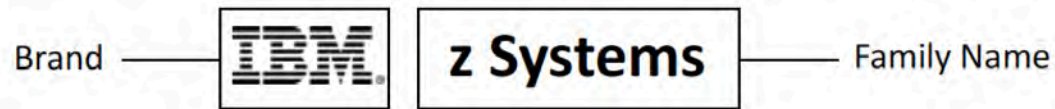
- Illustrate how and when to correctly use and incorporate the IBM z Systems “family” and “product” line naming conventions and terminology usage
- Use proper language to convey mainframe’s evolutionary path and modern capabilities
- Adhere to IBM standards and guidelines
- Participate and be a part of the z Systems Social Conversation

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IBM z Systems Naming Hierarchy



Product Line	IBM S/390®	IBM eServer™ zSeries®	IBM System z9®	IBM System z10®
Product Name(s) / Model(s)	9672 / RX1 to XX7	IBM eServer zSeries 990 / XXX IBM eServerzSeries 890 / XXX IBM eServerzSeries 900 / XXX IBM eServerzSeries 800 / XXX	IBM System z9 Enterprise Class (z9 EC) / SXX IBM System z9 Business Class (z9 BC) / XXX	IBM System z10 Enterprise Class (z10 EC) / EXX IBM System z10 Business Class (z10 BC) / E10

IBM z Systems Naming Hierarchy



Product Line	IBM zEnterprise® System (zEnterprise)			IBM z Systems™		
Product Name(s) / Model(s)	IBM zEnterprise EC12 (zEC12) / HXX IBM zEnterprise BC12 (zBC12) / HXX IBM zEnterprise 196 (z196) / MXX IBM zEnterprise 114 (z114) / MXX	IBM zEnterprise BladeCenter* Extension (zBX) /002/003 IBM z BladeCenter* Extension (zBX) 004	IBM zEnterprise Unified Resource Manager / - Suites - Manage Adv Mgmt Automate	IBM z13™ (z13) / NXX	IBM z BladeCenter* Extension (zBX) 004	IBM z Unified Resource Manager / - Suites - Manage Adv Mgmt Automate

z Systems Naming

The **IBM z Systems** family name is replacing IBM System z and will encompass every IBM Mainframe from S/360 through the new IBM z13 and any future systems. **The term “System z” should not be used in any materials after January 14, 2015.**

When referring to the z Systems environment, the terms z Systems environment, z Systems platform, z Systems family, and z Systems technology are not necessary but are permissible when required.

When referring to an entire mainframe install base or a set of mainframe products, use of IBM z Systems is appropriate. Using **“IBM mainframe”** or **“the mainframe”** is also acceptable.

Using the new IBM mainframe system naming conventions requires careful adherence to IBM standards and guidelines, as well as an understanding of the product family, the specific product name(s) and the messaging supporting them. Using consistent terminology and messaging around the IBM z Systems family and the new IBM z13™ is essential for IBM success and acceptance in the marketplace.

z Systems Naming



When referring to an entire mainframe install base or a set of mainframe products, use of IBM z Systems is appropriate. Using “**IBM mainframe**” or “**the mainframe**” is also acceptable.



z Systems Naming – IBM z13

Brand Name: IBM	Product Class: IBM mainframe
Family Name: IBM z Systems™	Family Short Name: z Systems
Product Line Name: IBM z Systems	Product Line Short Name: z Systems

Product Names (Short Names): IBM z13™ (z13)

Models: N30, N63, N96, NC9, NE1
Machine Type: 2964

Workload Optimizing Attachments: IBM z BladeCenter® Extension (zBX) Model 004
IBM DB2® Analytics Accelerator for z/OS®

Management Firmware (ensemble management): IBM z Unified Resource Manager
(Unified Resource Manager, zManager)

zBX Supported Blades: Select IBM POWER7® blade servers
Select IBM System x® blade servers

zBX Supported Optimizers: IBM WebSphere® DataPower® Integration
Appliance XI50 for zEnterprise (DataPower XI50z)

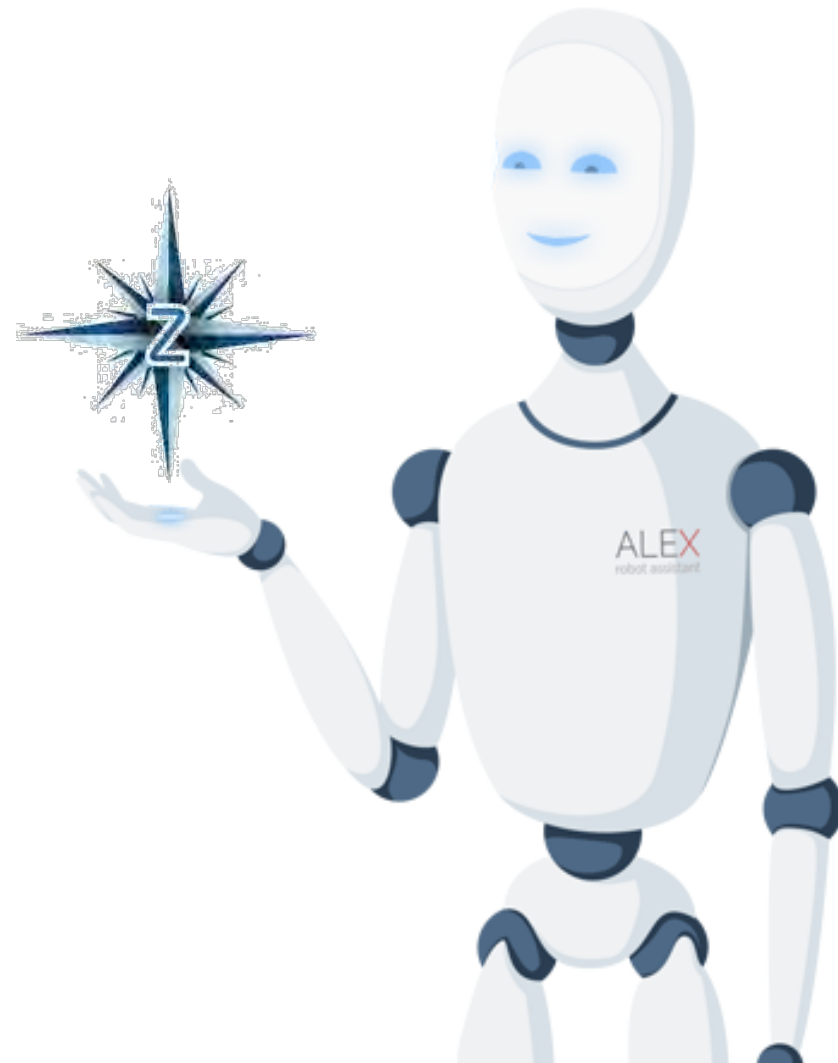
It is everyone's responsibility to protect and maintain these valuable trademark assets and build recognition for these new products and the future of the IBM mainframe platform. These standards apply to all IBM employees, contractors, agencies and Business Partners for both internal and external uses.

Meaningless MIPS?

MIPS

is an acronym for

Meaningless Indication of
Processor Speed



Meaningless MIPS?

One of the most misused terms in IT has to be **MIPS**.
It's supposed to stand for "**Millions of Instructions Per Second**"

As commonly used today, MIPS has become a RELATIVE indicator of AVERAGE processor CAPACITY

Unfortunately, no one number describes capacity. Processor speed varies depending on many factors, including (but not restricted to):

- Workload mix
- Memory/cache sizes
- I/O access density
- Software levels (OS and application subsystems)
- Hardware changes
- Partitioning

IBM offers the Large Systems Performance Reference (LSPR). **LSPR** data consists of a variety of workloads, each representing a type of production environment. LSPR results are based on measurements and analysis across the majority of contemporary System 370/390 and z/Architecture processors, both IBM and IBM compatible.

Meaningless MIPS?

- Historically (pre-zEnterprise systems), LSPR workload capacity curves have had application names or have been identified by a software characteristic (CICS, IMS, OLTP-P, CB-L, LoIO-mix and TI-mix). However, capacity performance has always been more closely associated with how a workload uses and interacts with a particular processor hardware design.

Workload capacity performance is sensitive to three major factors:

- Instruction path length
 - Instruction complexity
 - Memory hierarchy
- Thus with the introduction of IBM System zEnterprise the LSPR introduces three new workload capacity categories which replace all prior primitives and mixes :
 - **LOW RNI** (Relative Nest Intensity)
 - **AVERAGE RNI**
 - **HIGH RNI**



While MIPS tables may be useful for rough processor positioning, they should not be used for capacity planning purposes. Single-number processor capacity tables are inherently prone to error because they are not sensitive to the type of work being processed or to the LPAR configuration of the processor.

Meaningless MIPS?

Sinet MIPS ratings for each mainframe originate from the LSPR based on specific z/OS versions.



z9 2094-701 is the base in z/OS v2r1 with a "capacity factor" of 560

multi-image

single image

Model	z/OS V2R1 2094-701 (560) MIPS MI	z/OS V2R1 2094-701 (593) MIPS SI	z/OS V1R13 2094-701 (560) MIPS MI	z/OS V1R13 2094-701 (593) MIPS SI	z/OS V1R11 2094-701 (560) MIPS MI	z/OS V1R11 2094-701 (593) MIPS SI	z/OS V1R9 2094-701 (570) MIPS MI	z/OS V1R9 2094-701 (604) MIPS SI	z/OS V1R8 2094-701 (568) MIPS MI	z/OS V1R8 2094-701 (602) MIPS SI	z/OS V1R6 2084-301 (429) MIPS MI	z/OS V1R6 2084-301 (450) MIPS SI
z13	X	X										
zBC12/zEC12	X	X	X	X								
z114/z196	X	X	X	X	X	X						
z10 BC/EC	X	X	X	X	X	X	X	X	X	X		
z9 BC/EC	X	X	X	X	X	X	X	X	X	X		
zSeries 890					X	X	X	X	X	X	X	X

Keeping the mainframe language current



WIKIPEDIA
The Free Encyclopedia

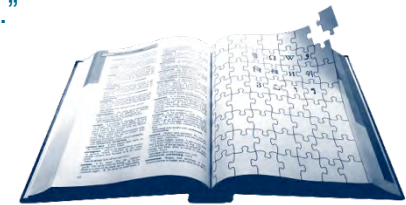
Legacy

Noun

In computing, a legacy program is an application program that was developed for a previous computer system, or application program that the user is using on a present computer system. Often a legacy program is one that is in need of updating or in need of a replacement.



(computing) An old application program that is still used because the user (or organization) does not want to design it.



WIKTIONARY
the free dictionary




heritage

Noun

1. An inheritance; property that may be inherited.
2. A tradition; something that can be passed down from preceding generations.
3. A birthright; the status acquired by birth, especially of but not exclusive to the firstborn.
4. (attributive) Having a certain background, such as growing up with a second language.
The university requires heritage Spanish students to enroll in a specially designed Spanish program not available to non-heritage students.

Keeping the mainframe language current



o·pen sys·tem

noun

1. COMPUTING

a system in which the components and protocols conform to standards independent of a particular supplier.



WIKIPEDIA
The Free Encyclopedia

Open system

Open systems are computer systems that provide some combination of interoperability, portability, and open software standards.

Naming Guidelines

Don't capitalize words or letters unnecessarily

IBM z Systems

IBM z13

Naming Guidelines

Don't use unapproved short names or acronyms



International Doctors in Alcoholics Anonymous
IBM DB2 Analytics Accelerator for z/OS



IBM z Unified Resource manager
z Unified Resource Manager
Unified Resource Manager
zManager



IBM zAware

Naming Guidelines

Linux on z Systems

- Port of the open source GNU / Linux® operating system to IBM z Systems™ architecture
- Pure Linux – it's an ASCII environment like all other Linux too
- Conform to the Linux Standard Base (LSB)
- **Not a unique version of Linux**
 - No changes to the standard kernel
- **NO emulation** - natively exploits z Systems hardware
 - Runs native in a LPAR or virtualized under z/VM®
- **No changes regarding Look & Feel**
- **Linux on z Systems** refers to the operating environment of running the Linux operating system and applications on IBM z Systems technology.
- **Linux for z Systems** refers to the Linux distributions available from Linux distributors that run on IBM z Systems technology.





PINTEREST

SOCIAL SITE THAT IS ALL ABOUT DISCOVERY

LARGEST OPPORTUNITIES



USERS ARE:

17% MALE
83% FEMALE

20 MILLION ACTIVE USERS



TWITTER

MICRO BLOGGING SOCIAL SITE THAT LIMITS EACH POST TO 140 CHARACTERS

LARGEST PENETRATION



BUT SPREADING SLOWLY AND STEADILY

5,700 TWEETS HAPPEN EVERY SECOND

241 MILLION ACTIVE USERS



FACEBOOK

SOCIAL SHARING SITE THAT HAS 1+ BILLION USERS WORLDWIDE

LARGEST OPPORTUNITIES



COMMUNICATING WITH CONSUMERS IN A NON-OBTUSIVE WAY

USERS SHARE 1 MILLION LINKS EVERY 20 MINUTES

1+ BILLION ACTIVE USERS



INSTAGRAM

SOCIAL SHARING SITE ALL AROUND PICTURES AND NOW 15 SECOND VIDEOS

MANY BRANDS ARE PARTICIPATING THROUGH THE USE OF # HASHTAGS

AND POSTING

PICTURES CONSUMERS CAN RELATE TO

MOST FOLLOWED BRAND IS NATIONAL GEOGRAPHIC

200 MILLION ACTIVE USERS



GOOGLE+

SOCIAL NETWORK BUILT BY GOOGLE THAT ALLOWS FOR BRANDS AND USERS TO BUILD CIRCLES

NOT AS MANY BRANDS ACTIVE, BUT THE ONES THAT ARE TEND TO BE A GOOD FIT WITH A GREAT FOLLOWING

25-35 YEAR OLDS ARE THE MOST ACTIVE

540 MILLION ACTIVE USERS



LINKEDIN

BUSINESS ORIENTED SOCIAL NETWORKING SITE

BRANDS THAT ARE PARTICIPATING ARE CORPORATE BRANDS GIVING POTENTIAL AND CURRENT ASSOCIATES A PLACE TO NETWORK & CONNECT



POWERS 50% OF THE WORLD'S HIRES

300 MILLION USERS

#IBMz #Mainframe

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Slogans & Taglines



ONE SYSTEM TO MEET EVERY APPLICATION NEED
ONE SYSTEM WITH FULL CIRCLE CAPABILITIES

**IBM
introduces
all-monolithic
technology,
memory and logic.
And a new
computer that
makes the most
of it:**

**System/370
Model 145.**

**You might call it a new era of computers,
or a new generation, or a technological breakthrough.
But what really counts is what it means to you.**



The hottest concept in computer technology

System/370 Model 145 is the first general-purpose business computer with 100% monolithic circuitry. Including main storage.

The use of this technology with its very high circuit density cuts main storage space in half.

Monolithic technology also speeds up the computing process. And improves reliability as well.

New advancements in speed

Model 145 is 3 to 5 times faster than System/360 Model 40, 5 to 11 times faster than System/360 Model 30.

And that's another reason it's the natural system to move up to if you're a Model 30 or 40 user.

Features, features, features

Like the other computers in the System/370 line, Model 145 is newly engineered inside and out. It's loaded with features.

Like four selector channels. So you can run more jobs and get more work done in the same time.

Like reloadable control storage. So you can have features like block multiplexing, 1400 and 7010

compatibility, and DOS emulation at no extra charge.

Like our new low-cost, high-speed disk facility (the 2319) that holds 87 million characters. And attaches directly to the system without the need for a separate control unit.

System/370: IBM's computer line for the '70s

With System/370, whatever you've got to get out gets out a lot faster.

With any model, you can get our new high-speed printer (the 3211). It fires out numbers and letters at the rate of 2000 lines a minute. Faster than you can blink.

With any model, you can also get our new high-speed disk facility (the 3330). It can hold up to 3½ times more information than our current files. 800 million characters in all. And it can send it into your computer up to 2½ times faster. At a rate of 806 thousand characters per second.

We think it's the best file around.

Revolutionary new product line

But perhaps the most amazing thing of all is that we've been able to make System/370 this advanced while still making it compatible with System/360.

And you also know with IBM you have the support of the most complete program library in the world. As well as the support of our Systems Engineering and Education services.

We've used a lot of words to describe System/370 Model 145. Like 100% monolithic circuitry. Like faster speeds. Increased performance. New features. Greater reliability.

These words aren't empty chatter.

Everything we've said is backed up by hard facts. Our products change. But our philosophy doesn't. We want you to get the most out of your computer system.

System/370. The performance computers for the seventies.

IBM.

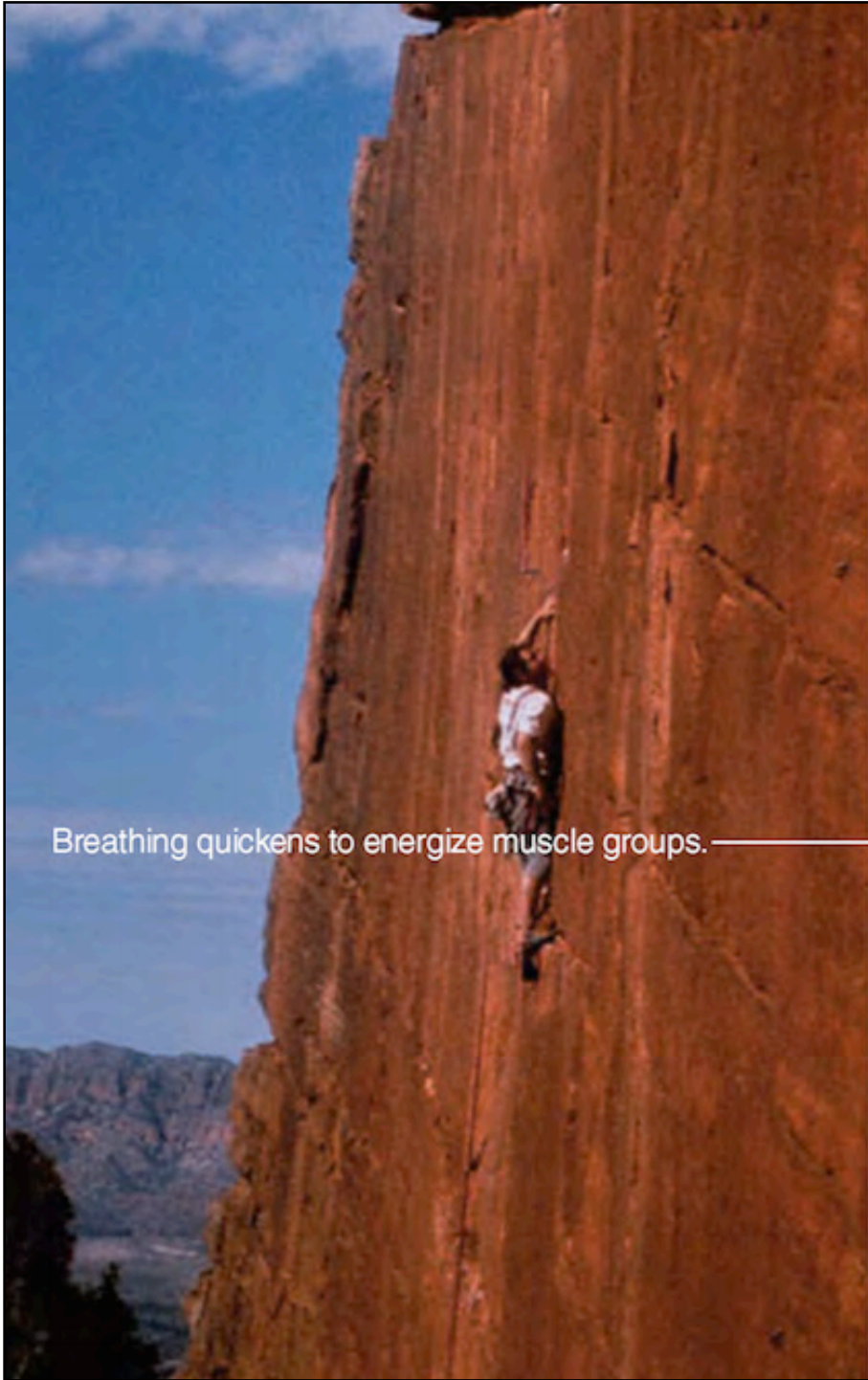


S/390:
Moving
Customers
Past the Limits

NETWORK COMPETITIVE • APPLICATIONS • TECHNOLOGY LEADERSHIP
SERVER INTEGRATION • BUSINESS INTELLIGENCE • GLOBAL SERVICES

IBM

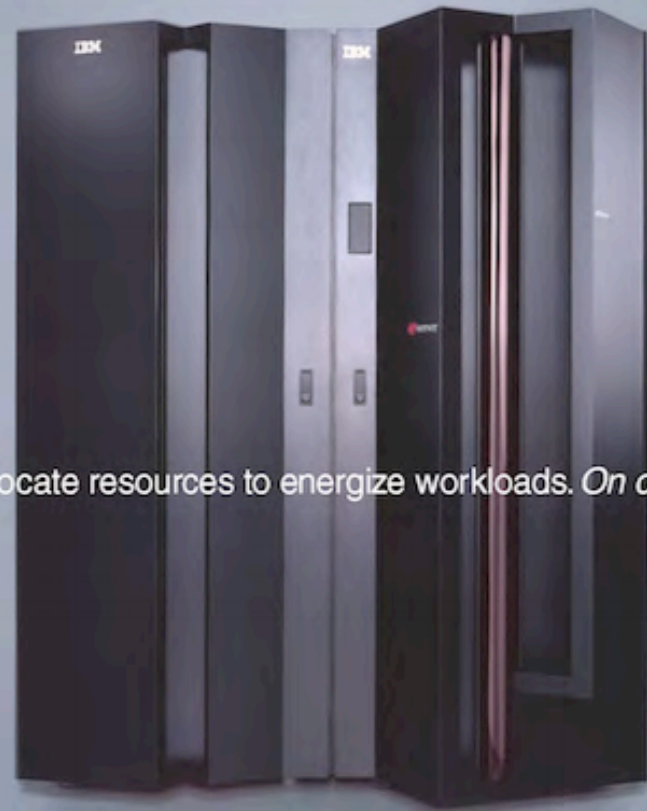
For more information visit www.ibm.com
S/390



Breathing quickens to energize muscle groups.

Can allocate resources to energize workloads. *On demand.*

IBM.



@server

Introducing the new IBM eServer zSeries 990.

The Future Runs on System z





Freedom
Through Design.

IBM zEnterprise® EC12

IBM.



IBM z13
The New Possible

Journey of Brand Transformation and Repositioning

IBM Mainframe50

IBM z13

Future Forward



“Make the Extraordinary Possible”

“Built for Mobile App Economy”

“The New Possible” The Next Generation of Open z

Industry Impact
Engines of Progress
Millennials
(MTM WC / MOOCS)
Research Projects
Enterprise
Cloud System
Mobile Pricing
Hadoop on z
z/OS Connect

New Technology
(SMT, 10TB, KVM, SIMD, etc.)
New SW (DB2 Blu,
Cloud Manager)
zCAP and Country
Multiplex Pricing
Apple + IBM Enterprise
Ready Apps
In-Transaction Analytics
Hybrid Cloud Connect
BlueMix for z
8M MIPS of Linux
Smarter Cities

Linux: KVM, Ecosystem
Internet of Things
SaaS Business Process
Optimization
Smarter Cities Expansion
IT Analytics OpenCrypto
MTM 2016 World Championship,
US Department of Education
Technology Economics
Emerging Economies



Key learning points

- Using **consistent terminology** and **messaging** around the IBM z Systems family and the new IBM z13™ is essential for IBM success and acceptance in the marketplace.
- **IBM z Systems** is now the official “family” name that legally covers the IBM mainframe class of products and associated offerings.
- When referring to an entire mainframe install base or a set of mainframe products, use of IBM z Systems is appropriate. Using “**IBM mainframe**” or “**the mainframe**” is also acceptable.
- IBM’s mainframes have always enabled businesses to **transform industries and shape the way we work and live.**



Diego Bessone
MAINFRAMER

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