



System z Summit

June 21, 2007

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IBM STG

Business Challenges Today



Globalization

Scale

Complexity

Security

Power

Globalization – February 26, 2007

Jitters Spread Around the World

CHINA

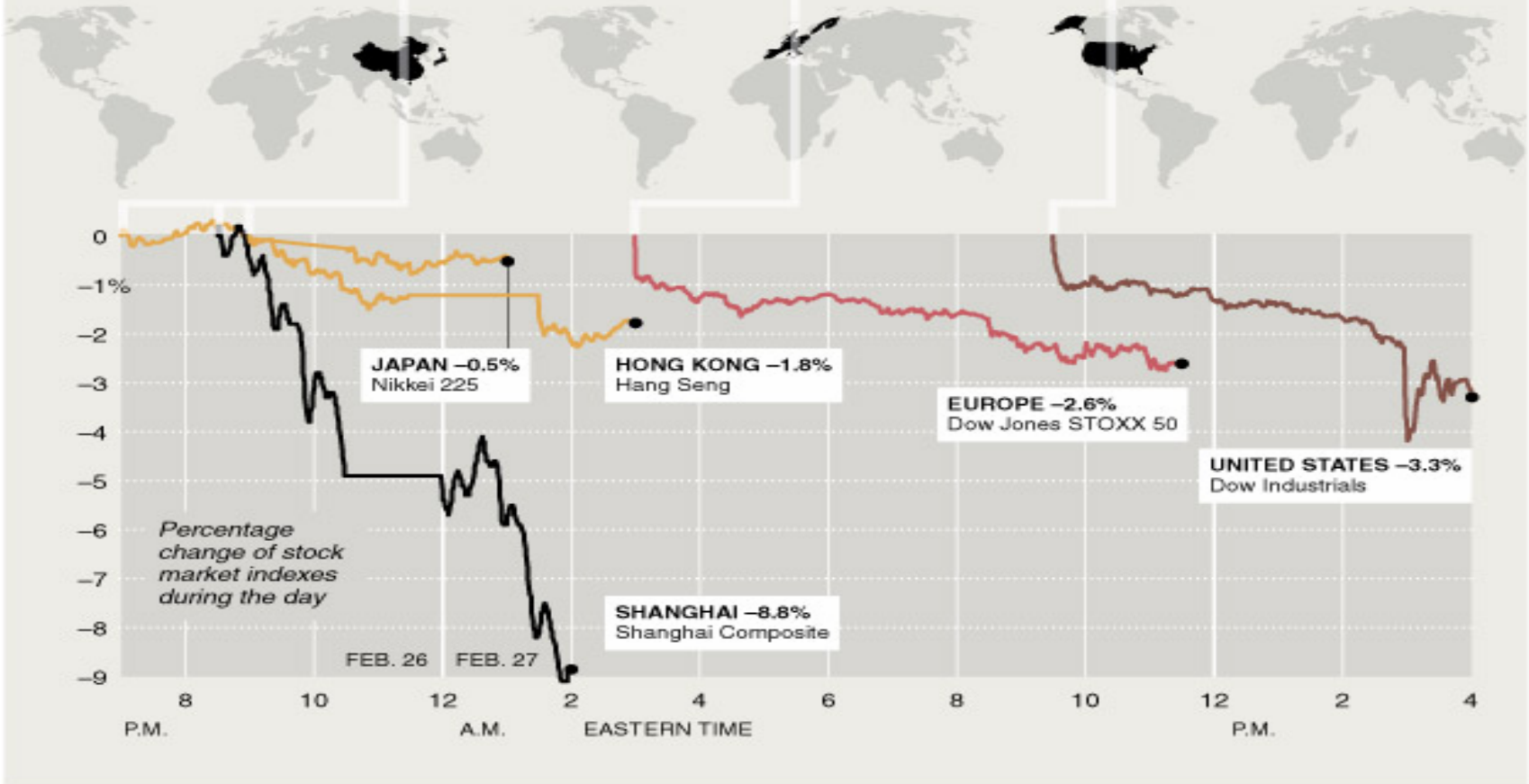
In Shanghai, the market plunge set off fears elsewhere.

EUROPE

Markets in Europe opened 1 percent lower, falling further during trading.

UNITED STATES

Wall Street fell more than 4 percent, but then recovered a bit.



Source: Bloomberg Financial Markets

The New York Times

Scale: India - Relentless Growth

*Major Emerging Players
Competing on a Global Scale*



TATA STEEL



India GDP Growth:

9.4%

Extreme Scalability: Bank of China

Over **350 million** accounts
with **three billion**
transaction histories



30 million
transactions in under
60 minutes

Security: The Cost of a Breach

**Security Flaw Exposes CVS Purchase Data;
50 Million customers exposed**

The Washington Post

**MasterCard security breached
More than 40 million cardholders may be affected**

MarketWatch

Ohio Sues DSW Over Customer Data Theft

ConsumerAffairs.Com™

Bill would punish retailers for leaks of personal data

THE WALL STREET JOURNAL.

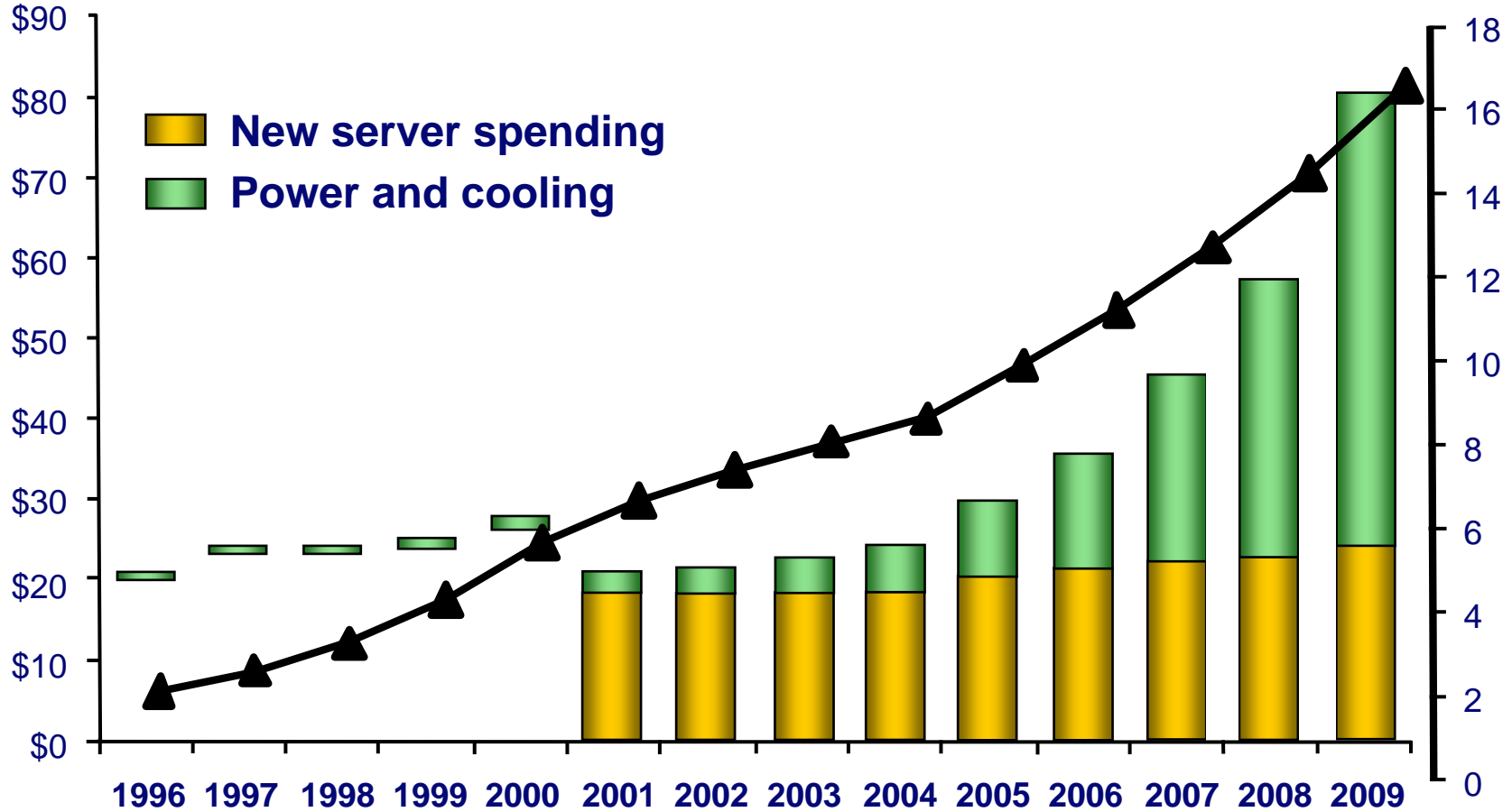
**Rogue Software Programmed to Wreak Havoc on
Target Web Sites**

The New York Times

Power and Cooling Costs

Spending
(US\$B)

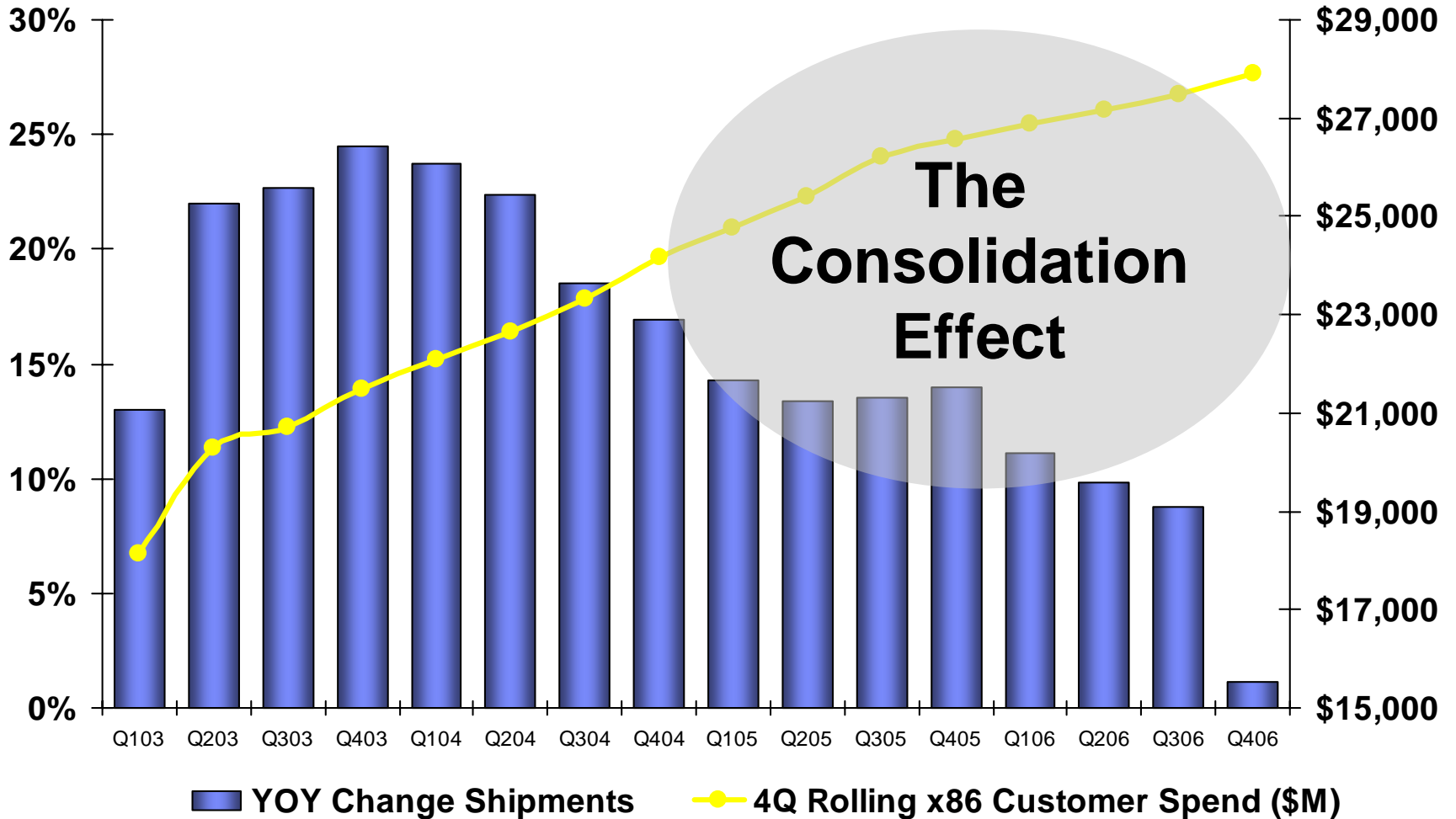
▲ Installed base
(M units)



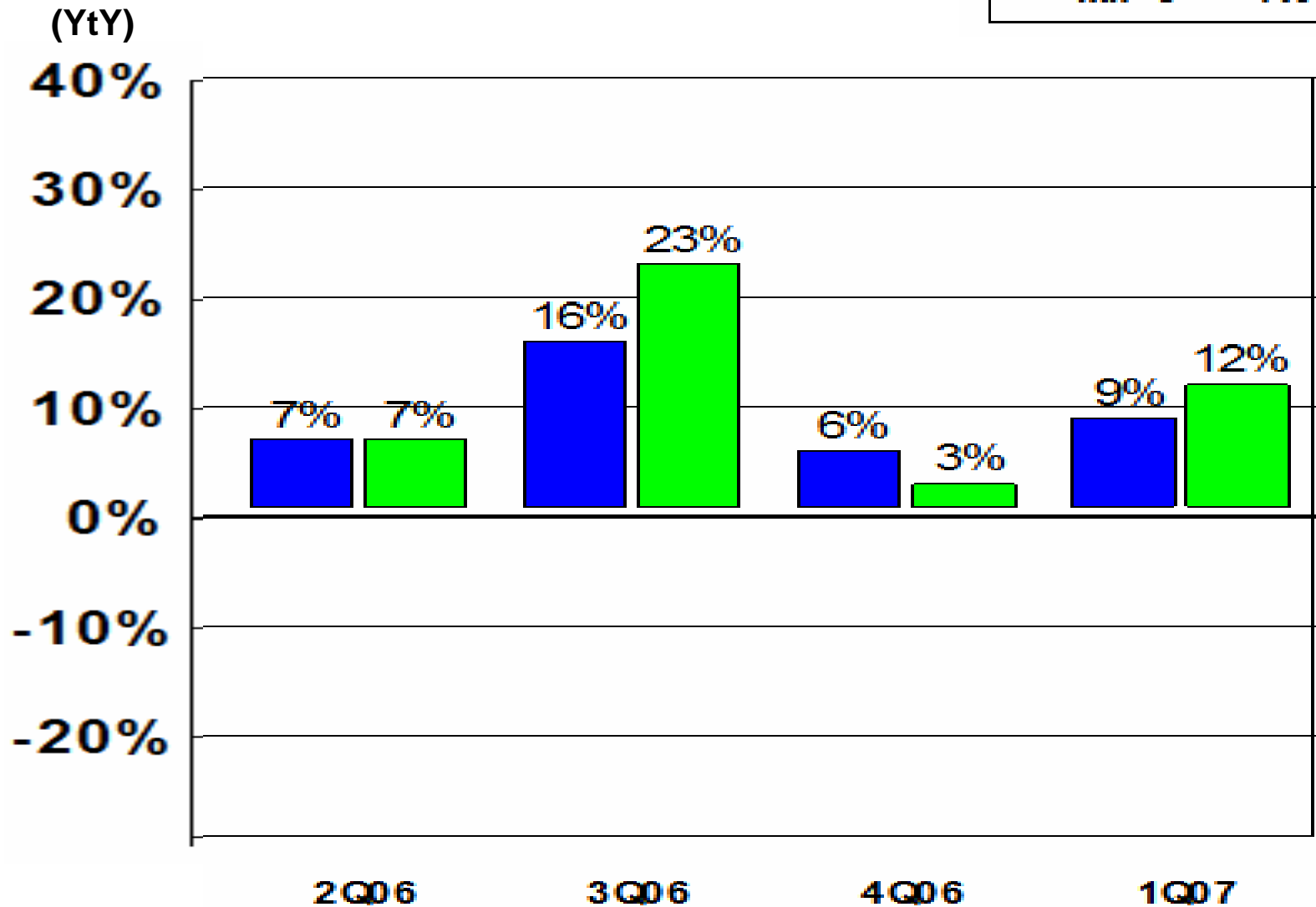
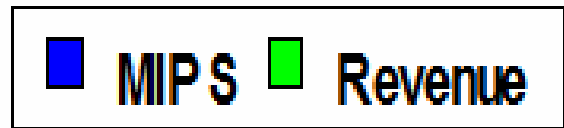
Virtualization

% Growth x86 Shipments

4Q Rolling x86 Customer Spending (\$M)

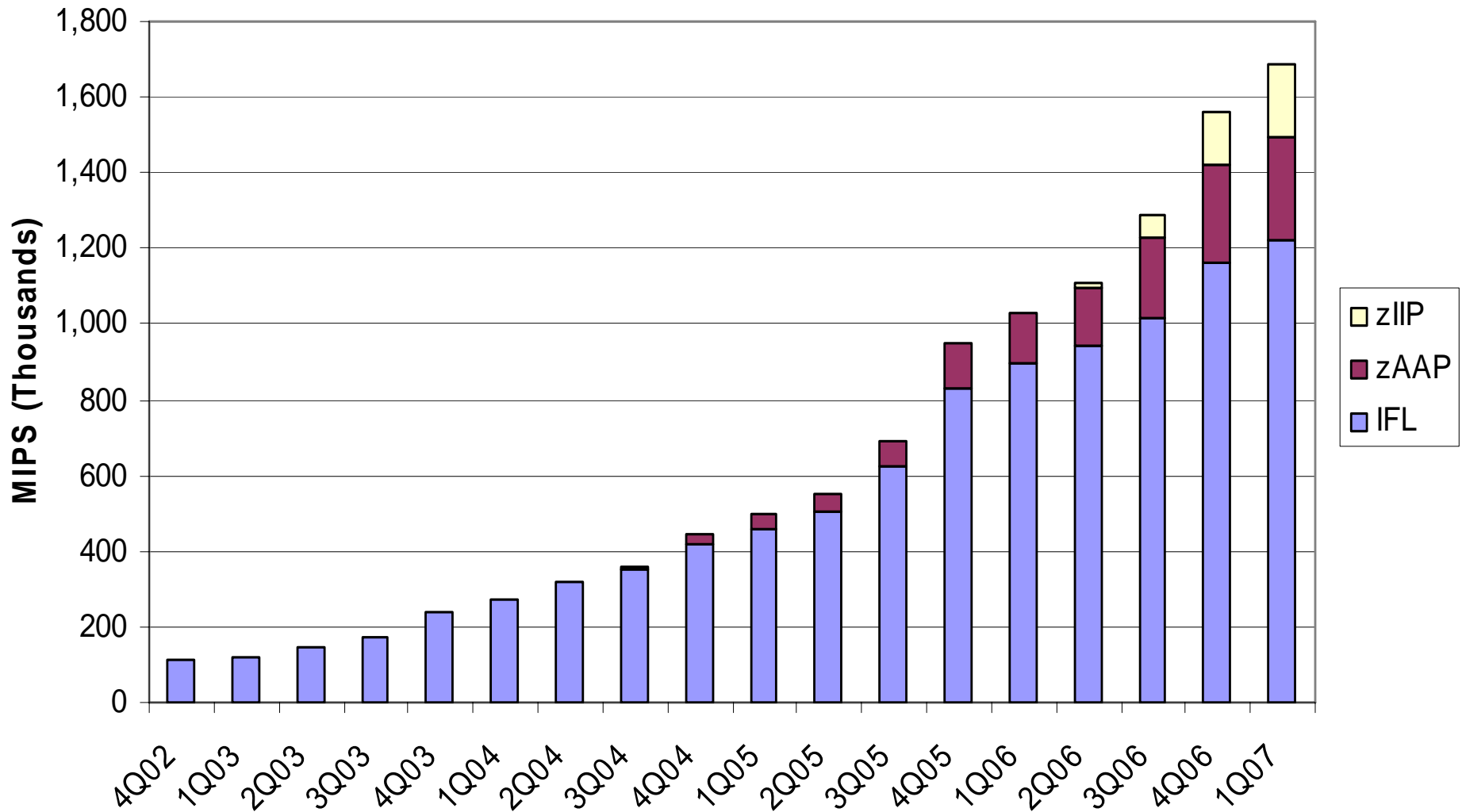


Mainframe MIPS and Revenue

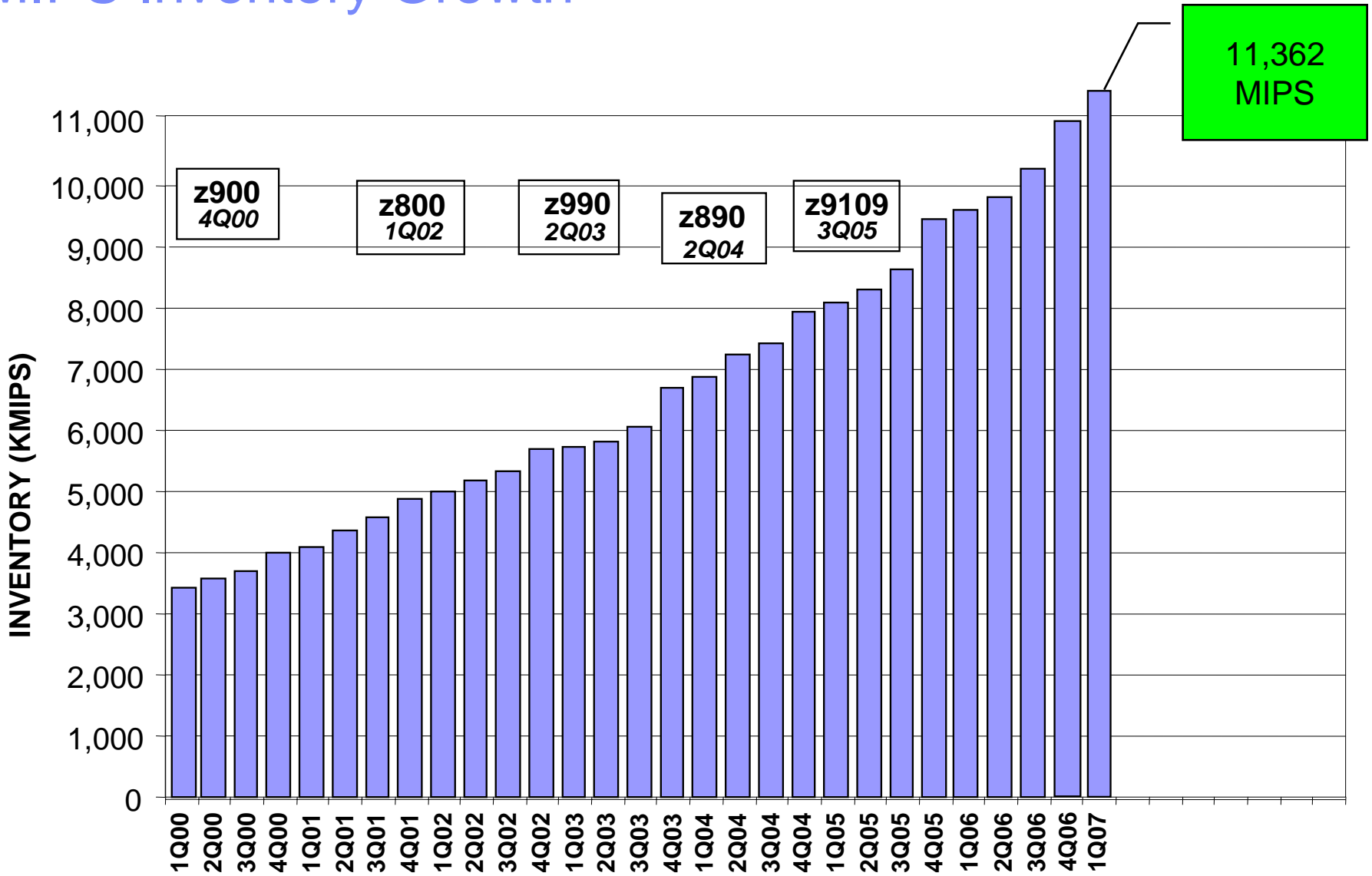


*IBM externally reported revenue

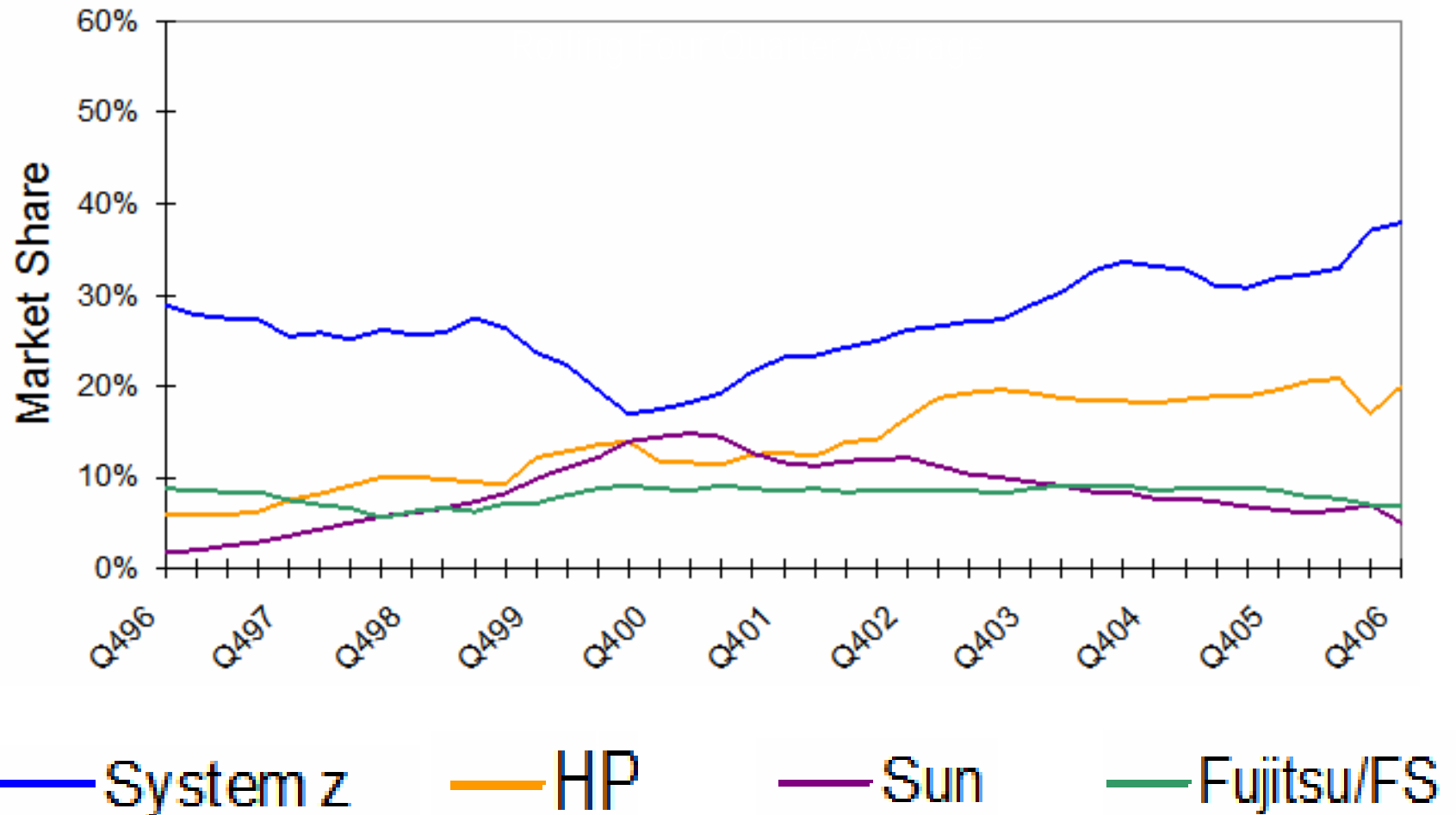
Specialty Engine MIPS Growth



MIPS Inventory Growth



Market Share Trend



Major Milestones

- ❑ **4Q06 largest hardware revenue quarter since 4Q98**
- ❑ **11 million MIPS installed**
- ❑ **Used by top 25 banks in the world**
- ❑ **Record year for specialty engines**
- ❑ **\$1 Billion in revenue influenced by Global Systems Integrators**
- ❑ **Entered online gaming business: Hoplon Infotainment**



Extreme Reliability: Eberspächer

Global Supplier of Specialized Components to the Automotive Industry



Business Need

- Minimize risk of downtime
- Consolidate to a single production data center
- Replicate business critical data across the 200km between existing data centers.

Solution

Long-distance data replication for SAP on the mainframe

Key Benefits

- ✓ Reduced hardware spend while keeping administration costs stable
- ✓ Continuous mirroring to backup site 200km away
- ✓ High protection for business-critical data

System z Linux: Telemar



Largest provider of fixed-line telecommunications services in South America.

Consolidated 16
geographically dispersed
servers on a centralized
System z9 EC server
running SuSE Linux

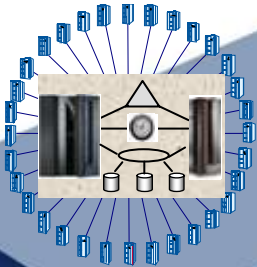
Benefits:

- Open-standards-based solution
- Maximized manageability, scalability, security and availability of its key business systems.
- Reduced need for server capacity by one-third
- Lowered operating and administration for maintaining email server applications.

Mainframe Innovation: Specialty Engines

Open Standards and Open Source

- Centralized data sharing across mainframes



Internal Coupling Facility (ICF) 1997



Integrated Facility for Linux (IFL) 2001



IBM System z Application Assist Processor (zAAP) 2004



IBM System z9 Integrated Information Processor (IBM zIIP) 2006

The Economics of Workload Consolidation

- **Distributed servers = 5% to 20% utilization**
 - Production, development and test servers
- **Virtualization and workload management enable consolidation on the mainframe**
 - Multiple images on fewer processors
 - Utilization levels of 85% or more

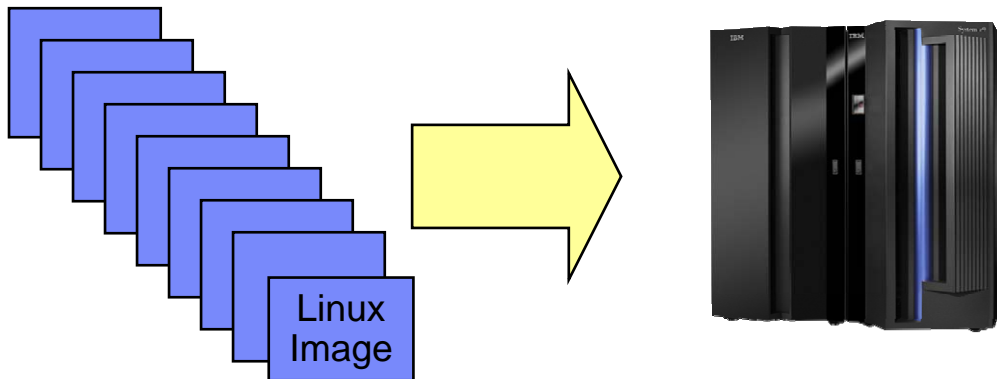
Lower TCO

-

Lower energy and facility costs

-

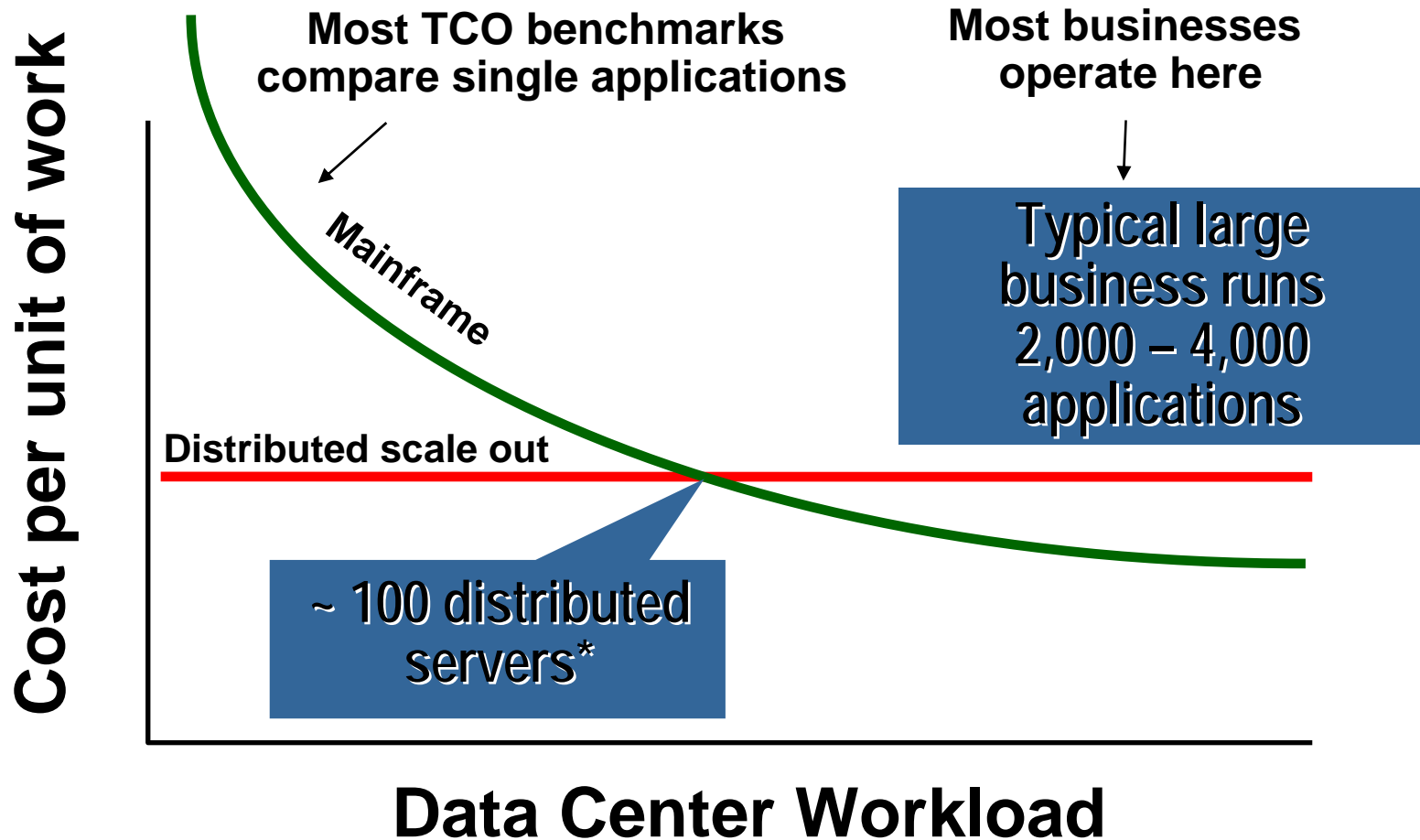
Reduced complexity and management costs



5% to 20% utilization

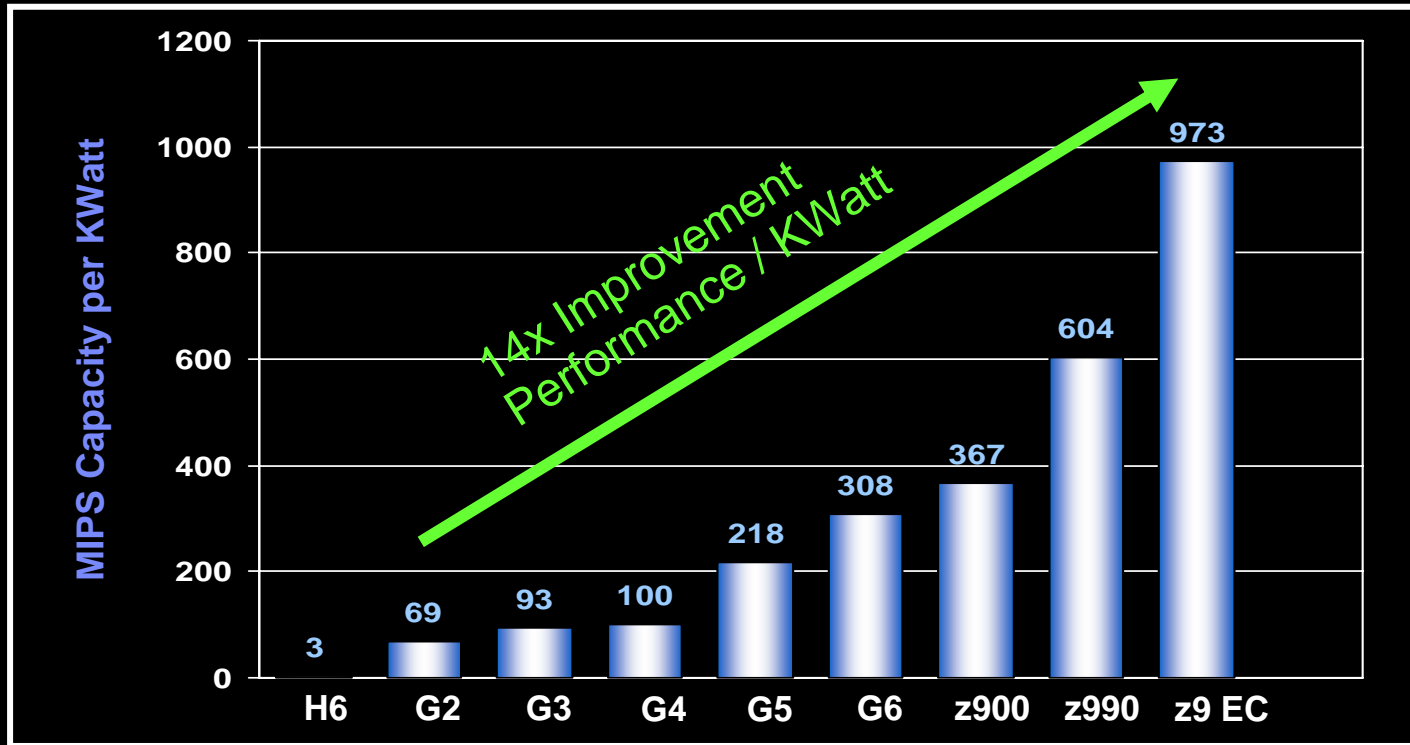
Full utilization

Mainframe: Lower TCO



System z is **Lean and Green**

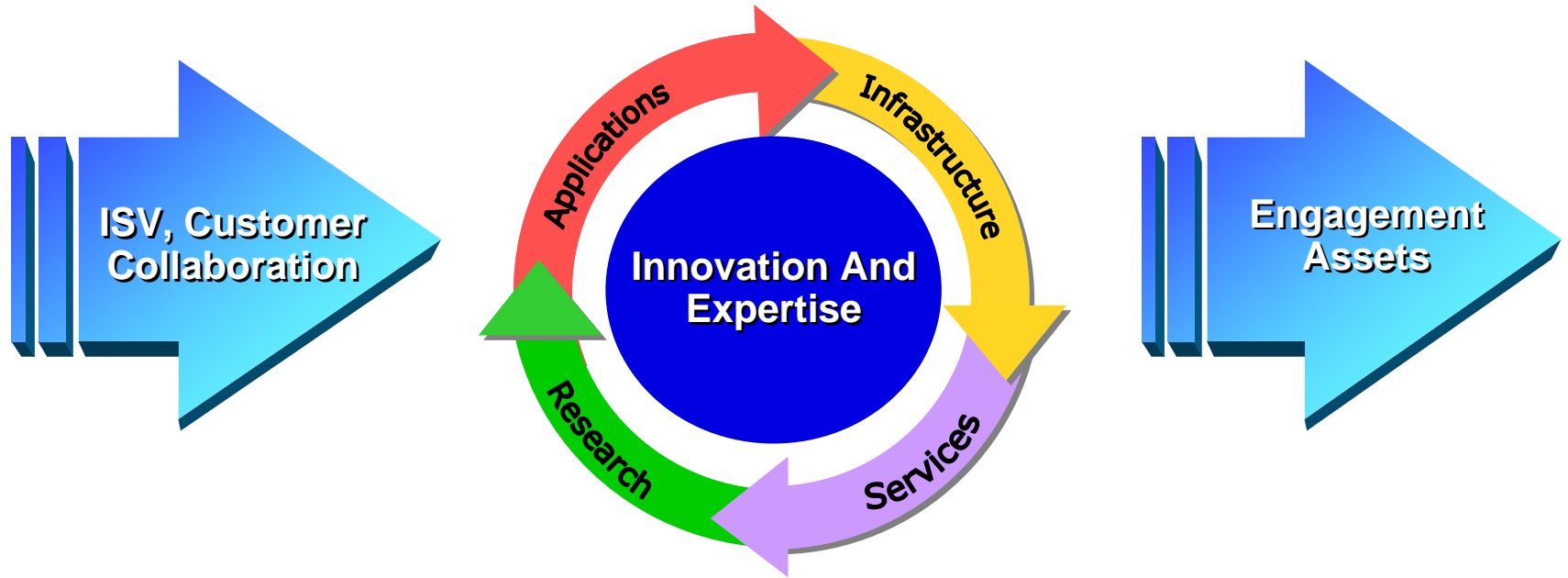
System z energy efficiency gains



1/12 the Power in 1/4 the Floor Space



Transform back office processing systems for banking clients



Be the Trusted Intermediary

Provide Global Coverage

Lower the Risk

ISV Ecosystem Growth



redhat.



ISV Ecosystem Growth

- 70+ new WebSphere® and DB/2 z/OS applications in six months

- 30% growth in Linux: 380 ISVs and 1036 applications today

- 1600+ applications on z/OS 1.7 and above

- Increased investments



System z Growth with Systems Integrators

\$1B System z influence revenue

- *Steady growth for 3 years*

Tripled System z resources for SIs

- *Business development, IT architects*
- *Classes, workshops, training*
- *Equipment for development/test and training*

Now Announcing : System z for SIs

- *Application Modernization*
- *SOA*
- *IT Resource optimization*
- *ERP – SAP and Oracle*

SI-Influenced Client Examples



- Savings in cooling, maintenance, SW and equip
- Optimized CPU Utilization
- Greater operational and managerial efficiencies



- Reduced MIPS from 1200 to 700
- zAAP WebSphere Workload
- Reduced MIPS from 1200 to 700

IBM Services and Expertise for System z



Solutions that optimize IT systems and processes – helping clients achieve faster ROI



Solutions that ensure critical business data and systems are available – helping clients stay open for business 24/7



Solutions that allow clients to be resilient, quickly respond and recover from disasters and crises with agility – helping clients prepare for the future

Over 20 Service Product Offerings

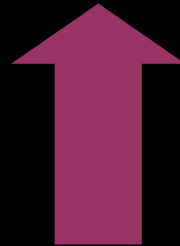
5000 Skilled Services Professionals supporting the mainframe

Simplifying the Mainframe

\$100 million mainframe simplification investment

328 Colleges and Universities

42,000 new students



Fill the pipeline with new talent:

- IBM Academic Initiative
- New Customers in Emerging Markets
- ISV applications for new workloads



Reduce complexity:

- Eliminate, automate, and simplify tasks
- More Open z Software Stack
- Mainframe as SOA Hub



NOVIPRO



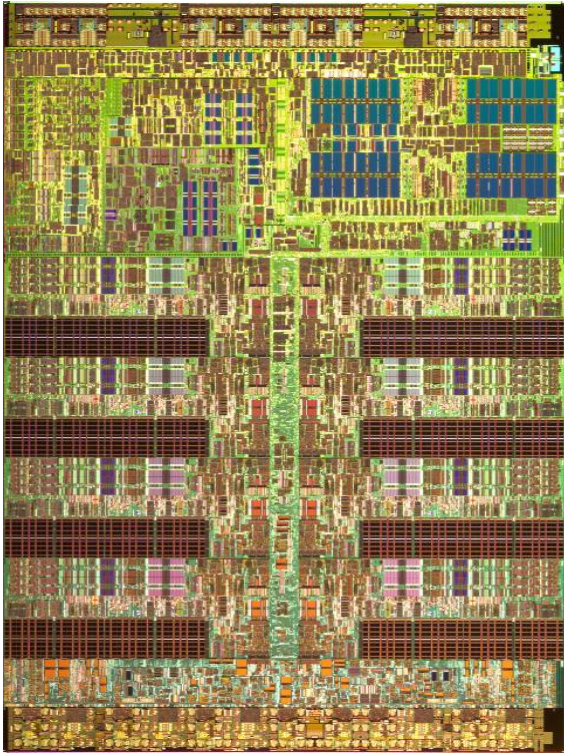
IBM
DESTINATION Z



Novell.



IBM and Hoplon: 'Gameframe' Project



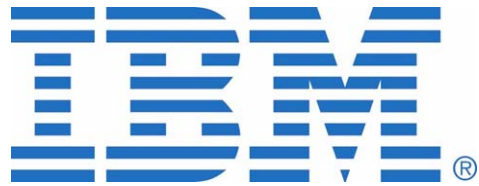
Cell Broadband Engine



IBM System z

Mainframe Power for Virtual Worlds and Gaming

IBM and Hoplon: 'Gameframe' Project



Cell Broadband Engine



IBM System z

Mainframe Power for Virtual Worlds and Gaming

IBM and Hoplon: 'Gameframe' Project



Cell Broadband Engine

IBM System z

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IBM and Hoplon: 'Gameframe' Project



Cell Broadband Engine

IBM System z

Mainframe Power for Virtual Worlds and Gaming

Announced Today...

IBM Launches Destination z

More than 20 IBM Business Partners and leading systems integrators

System z for SIs

zSecure V1.8.1 suite

Helps administer mainframe security servers, monitor threats, audit usage and configurations, and enforce policy compliance

IT Value Based Analytics (ITVBA)

Drives IT cost transparency

Turbo-charged z/VM

10x more virtualized memory and up to 256 GB of real memory

Implementation Services for Parallel Sysplex

Service product designed to help clients implement and optimize a clustered mainframe environment.

Client & Partner Guests Today

Customers

Hoplon Infotainment, Tarquinio Teles, CEO

Showcased:

Main Tent

"IBM System z: The Ultimate Virtualization Platform"

Baldor Electric, Mark Shackelford, Vice President

Showcased:

"Leveraging the Value of the Mainframe to Deliver Information on Demand"

Ball State University, Dr. O'Neal Smitherman, VP of Information Technology & CIO

Showcased:

"When and Why to Deploy New Workload to System z"

Partner Participation

Resellers

Mainline Information Systems

Sirius Computer Solutions

Novipro

MSI Systems Integrators

Vicom Infinity

Jeskell

PSR

Berbee

Representatives

Roger Luca

Rick Bailer

Yves Paquette

Steve Gilles

Tom Amodio

Steve White

Glen Baker

Mike Grone

System Integrator

Sogeti

ISVs

Telcordia

Innovation Group

Infor-Workbrain

Information Builders

Microfocus

Representatives

Jean-Marc Gaultier

Dennis Tinley

Andrew Labrot

Bill Gerber

Adam Cohen

Mike Waters

Today's Academic Guests

Professors

Dave	Dischiave	Syracuse University	Professor, School of Information Studies
Susan	Dischiave	Syracuse University	Professor, School of Information Studies
Suk Chong	Yoon	Widener University	Professor - Chairman of Computer Science Department

Students

Adam	Shea	University of Toledo	Computer Science & Engineering Technology Major
Anthony	Cocuzza	Marist College	Graduate Student - Computer Science
Daniel	Shea	Marist College	Senior - Computer Science
David	Neuburger	Northeastern Illinois University	Graduate Student - Computer Science
Fu-Ching	Hsiao	Widener University	Junior - Computer Science
Jason	Rudolph	Widener University	Junior and Student Manager at Mainframe Lab
John	Stoddart	Widener University	Computer Science Lab Technician
Noah	Pascarell	Widener University	Junior and Student Manager at Mainframe Lab
Shiva	Ramasamy	Widener University	Junior - Computer Science
Troy	Crutcher	Illinois State University	Information Systems - Systems Development
William	Burke	Widener University	Junior - Computer Science

Today's Break-out Sessions



<p>Enterprise IT and the Modern Application Architecture <i>Danny Sabbah, General Manager, Rational Software</i></p>	<p>Expanding the System z Ecosystem <i>Jim Corgel, General Manager, ISV & Developer Relations - Software Group</i> <i>Florence Hudson, Vice President, System z Marketing and Strategy</i></p>
<p>When and Why to Deploy New Workloads to System z <i>Tom Rosamilia, General Manager, Application & Integration Middleware</i></p>	<p>IBM System z: The Ultimate Virtualization Platform <i>Reed Mullen, Product Manager, System z Virtualization Technology</i></p>
<p>Leveraging the Value of the Mainframe to Deliver Information on Demand <i>Ambuj Goyal, General Manager, Information Management Software</i> <i>Jeff Josten, IBM Distinguished Engineer, DB2 for z/OS Development</i></p>	<p>The Mainframe - A Revolutionary Low-cost Platform <i>John Shedletsky, Vice President, Competitive Technology, SWG</i></p>
<p>Mainframe Simplification: The Road Ahead <i>Jose Castano, IBM Systems & Technology Group, System z Program Director, System z Strategy & Technology</i></p>	<p>IBM System z Strategies and Directions <i>Jim Porell, Distinguished Engineer; Chief Architect, IBM System z Software</i></p>
<p>Aligning End-to-End Systems Management, Security, and Costs with Enterprise Business Services <i>Al Zollar, General Manager, Tivoli Software</i> <i>Mark Lynch, IBM Tivoli Usage & Accounting Manager</i></p>	<p>Executive Q&A and Closing Remarks <i>Steve Mills, Senior Vice President and Group Executive, SWG</i> <i>Jim Stallings, General Manager, IBM System z</i></p>



Thank you.

