

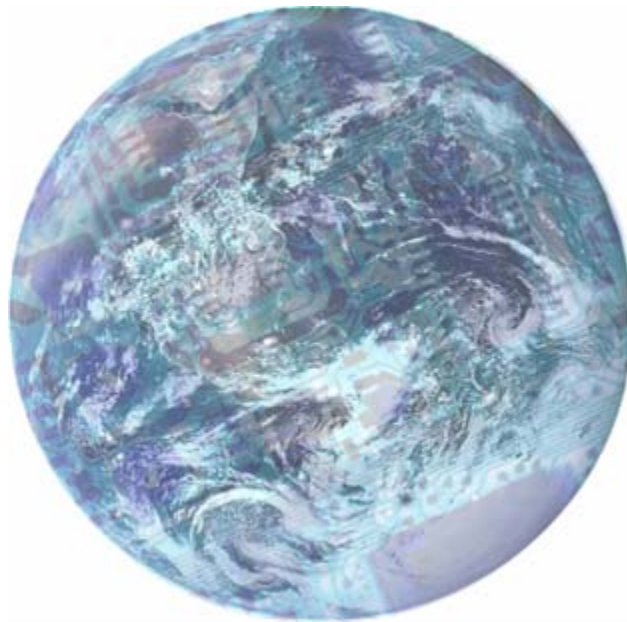


# **System z Enables Solutions For A Smarter Planet**

The Smarter Planet And System z

# Something Meaningful Is Happening

*“Every human being, company, organization, city, nation, natural system and man-made system is becoming **interconnected, instrumented and intelligent.** This is leading to new savings and efficiency—but perhaps as important, new possibilities for progress.”*



**The world is getting smarter!**

# Consider How Our World Is Changing: Our World Is Becoming More...



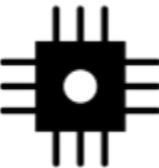
## INTERCONNECTED

- 1/3 of the world's population on Web by 2011
- 4B mobile subscribers globally at end of 2010
- 37K cyber attacks in the US in 2007 (158% increase since 2006)



## INTELLIGENT

- 15 petabytes of new information generated every day (8x more than the information in all U.S. libraries)
- 64B credit card transactions/year (up 35% YTY)
- New York Stock Exchange quote messages will be 400B/year by 2012 (up 900% from 2000)



## INSTRUMENTED

- 30 billion embedded RFID tags by 2010
- 1/2 of all sensors in transportation, facilities and production equipment are smart sensors

# Despite Progress – We Can Do Better

- US healthcare system losing > \$100B/year to fraud
- European retail sector wasted nearly €2B in 2006
- US Consumer Packaged Goods businesses lose \$40B/year due to supply chain inefficiencies
- \$11.5B/year of Indian produce is wasted
- 40% of insurance adjusters time wasted doing routine overhead functions
- For every 1,000 knowledge workers, \$5.7M/year worth of productivity is wasted reformatting information between applications

# Growth Of IT Energy Usage In Data Centers Continues At An Alarming Rate

- Data centers have doubled in consumed power in the last five years.
  - ▶ At this rate, in 20 years (the average life of a data center) there will be 15 additional data centers for every one today
- Data centers consume 30-100 times energy/sq. ft. than typical office building. Many are close to power limits or running out of power. Why?
  - ▶ Vast infrastructure is needed to support microprocessors upon which computing is done. Consists of:
    - Power
    - Cooling
    - Floor Space

# To Make Sense Of This New World, We Must Address Four Critical Questions

“New business and process demands”

**I Need to Work Smart**

*How can we work smarter supported by flexible and dynamic processes modeled for the new way people buy, live and work?*

**Smart Work**

“Data is exploding and it’s in silos”

**I Need Insight**

*How can we take advantage of the wealth of information available in real time from a multitude of sources to make more intelligent choices?*

**New Intelligence**

“My infrastructure is inflexible and costly”

**I need to respond quickly**

*How do we create an infrastructure that drives down cost, is intelligent and secure, and is just as dynamic as today’s business climate ?*

**Dynamic Infrastructure**

“Our resources are limited”

**I Need Efficiency**

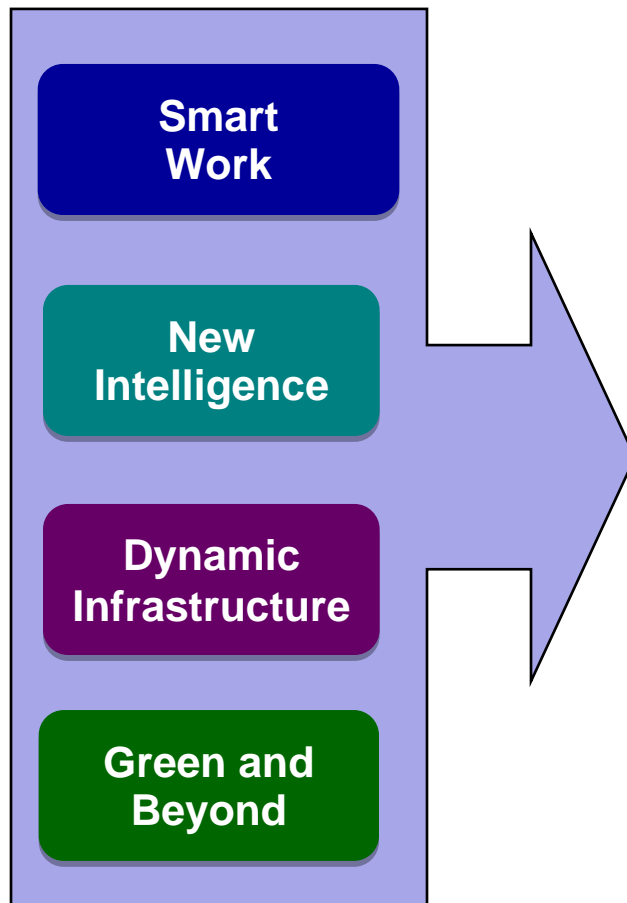
*How do we drive greater efficiencies, compete more effectively, and respond more quickly by taking action now on energy, the environment, and sustainability?*

**Green and Beyond**

# Key Questions For A Smarter Planet Data Center

- ✓ *Can you adapt workloads and processes to local conditions?*
- ✓ *Can you make changes to your business processes quickly?*
- ✓ *Are you still working with data on paper?*
- ✓ *Can you provide a consistent, enterprise-wide view of critical customer data?*
- ✓ *Do you operate your data center at the lowest possible cost?*
- ✓ *Are your clients satisfied with their response time for new service requests?*
- ✓ *Are you wasting energy?*
- ✓ *Are you reaching the limit of your data center capabilities?*
- ✓ *Are you monitoring your energy consumption?*

# Today's Seminar Will Demonstrate Why IBM Software And System z Are The Smart Platform For The Smarter Planet



## **Innovation ...**

*State of the art software for smarter planet solutions*

## **Efficiency ...**

*Lowest total cost of ownership*

## **Performance ...**

*Delivers unrivaled qualities of service*

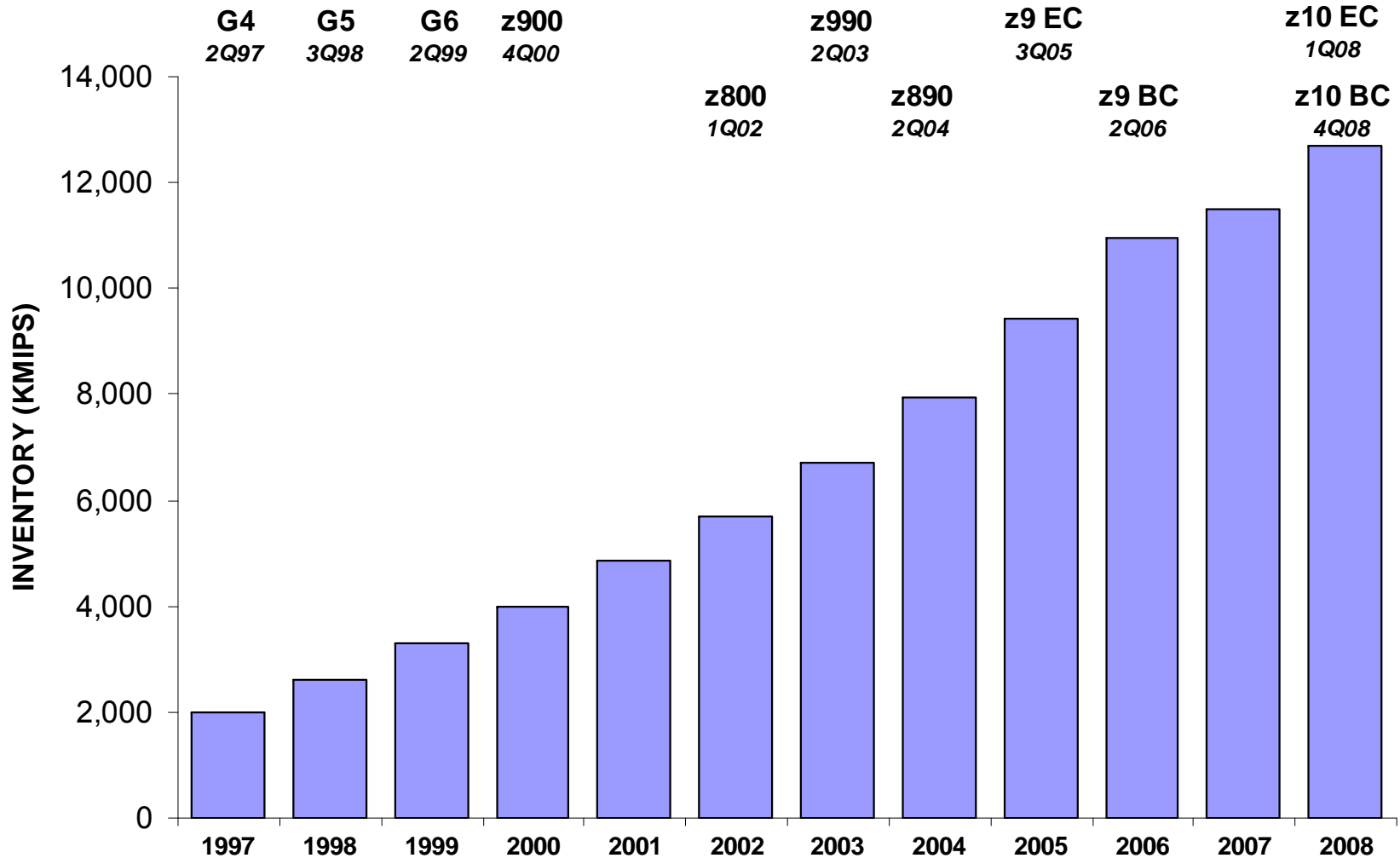


# System z – A Superior Platform

- Tremendous efficiency in the usage of processors and storage
  - ▶ Scale
  - ▶ Virtualization
  - ▶ Quality of service
  - ▶ High utilization

*System z – the hardware is great... the software makes it smarter!*

# Solid Growth In Worldwide Mainframe Capacity



CAGR 1997-2008 = 18%

# Enterprises Virtualize, Consolidate, And Find New Uses For System z

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## IT Infrastructure

### Survey: Mainframe Hardware, Software Spending to Grow in Next 5 Years

By: Darryl K. Taft  
2009-09-15

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## Can mainframe use really grow?

IDC sees five-year growth for Big Iron hardware and software

By [Michael Cooney](#), Network World, 09/15/2009

**ComputerWeekly.com**

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## Businesses find new uses for mainframes

Author: [Cliff Saran](#)

Posted: 09:03 16 Sep 2009

Topics: [Mainframes](#) | [Computer Hardware](#) | [Software Types](#)

Businesses are finding more ways to use their IBM System z mainframe platforms, a study from IDC has found. Far from being killed off, the mainframe is still considered a significant platform for running applications, according to the analyst firm.

# System z “Solution Editions” Bundle Hardware, Software, And Maintenance At The Best Price

- Integrated System z **solution**
  - ▶ 3-5 year “bottom line” price
- New System z workloads
- Solution Edition includes:
  - ▶ z10 HW (new box or separate LPAR)
  - ▶ IBM middleware
  - ▶ Maintenance
  - ▶ Services (as needed)
  - ▶ Storage (as needed)

## *Solution Editions:*

- *Data Warehousing*
- *Security*
- *WebSphere*
- *GDPS*
- *Application Development*
- *SAP*
- *ACI*
- *Cloud Computing*
- *Enterprise Linux\**
- *Chordiant\**

*\*coming in Q4 2009*

# Introducing Service Oriented Finance

**We are a traditional bank with branch offices throughout the country.**

**This has been a difficult year. Survival is our a top priority.**

**We need to cut costs!**



**Service Oriented Finance  
CEO**

# Service Oriented Finance

**We never got ahead of  
all the changes that  
were forced upon us.**



**COO**

# Service Oriented Finance

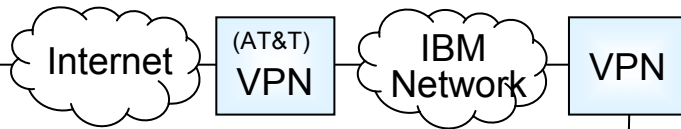
**We had to cut staff.**

**So how can we make changes,  
while maintaining our current  
operations?**



**Service Oriented Finance  
CIO**

# DEMO: Architecture



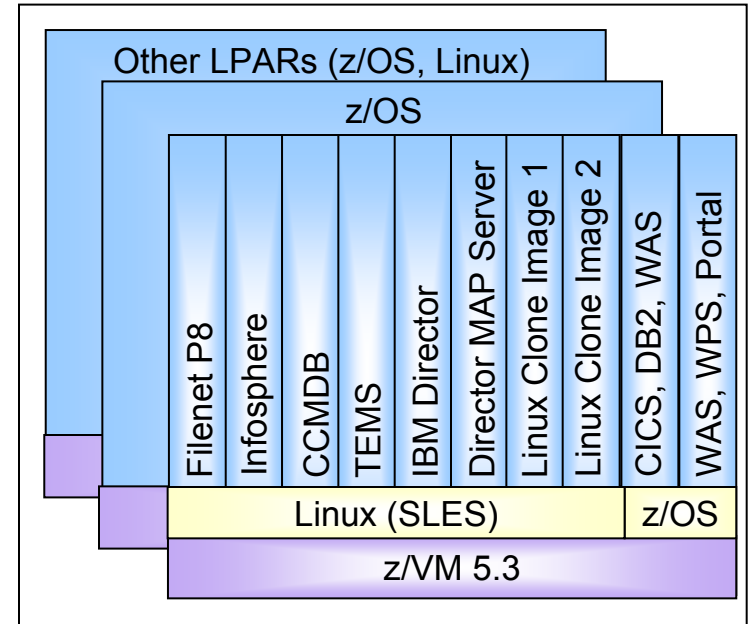
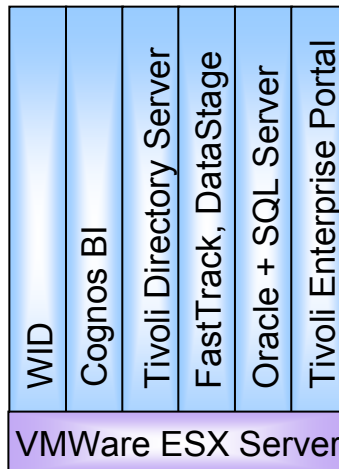
Remote Desktop  
to System x client  
images



**z10-EC  
2097-E64  
640GB RAM**

**System x 3850  
4 x 3.66GHz Xeon MP  
12GB RAM**

System x VMWare  
images running as  
desktop or server  
clients to System z





# Our Agenda Today

Agenda	
40 Minutes	The Smarter Planet and System z
40 Minutes	Smart Work on System z
20 Minutes	<b>Break</b>
40 Minutes	Handling the Information Explosion
40 Minutes	Making Smarter Business Decisions
60 Minutes	<b>Lunch</b>
40 Minutes	Dynamic Infrastructure With System z
40 Minutes	Enterprise Systems Management
20 Minutes	<b>Break</b>
40 Minutes	The Smart Platform
40 Minutes	The Rule of Three