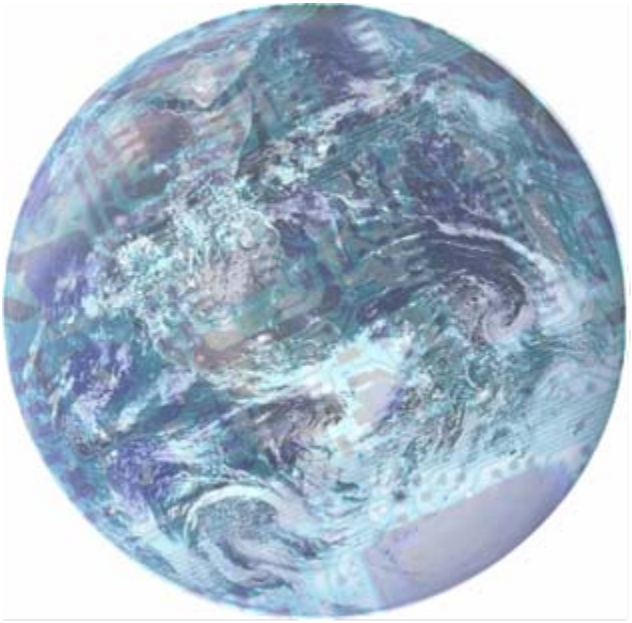
System z Enables Solutions For A Smarter Planet

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!

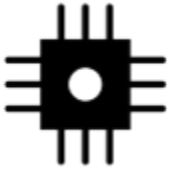
Consider How Our World Is Changing: Our World Is Becoming More…

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

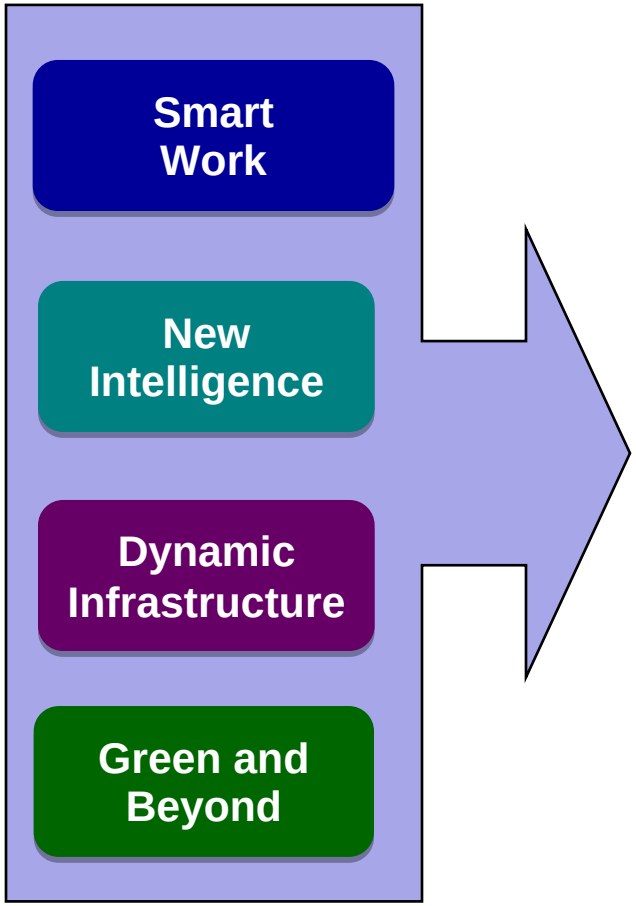
To Make Sense Of This New World, We Must Address Four Critical Questions

"New business and process demands"	"Data is exploding and it's in silos"	"My infrastructure is inflexible and costly"	"Our resources are limited"
I Need to Work Smart	**I Need Insight**	**I need to respond quickly**	**I Need Efficiency**
How can we work smarter supported by flexible and dynamic processes modeled for the new way people buy, live and work?	*How can we take advantage of the wealth of information available in real time from a multitude of sources to make more intelligent choices?*	*How do we create an infrastructure that drives down cost, is intelligent and secure, and is just as dynamic as today's business climate ?*	*How do we drive greater efficiencies, compete more effectively, and respond more quickly by taking action now on energy, the environment, and sustainability?*
Smart Work	**New Intelligence**	**Dynamic Infrastructure**	**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

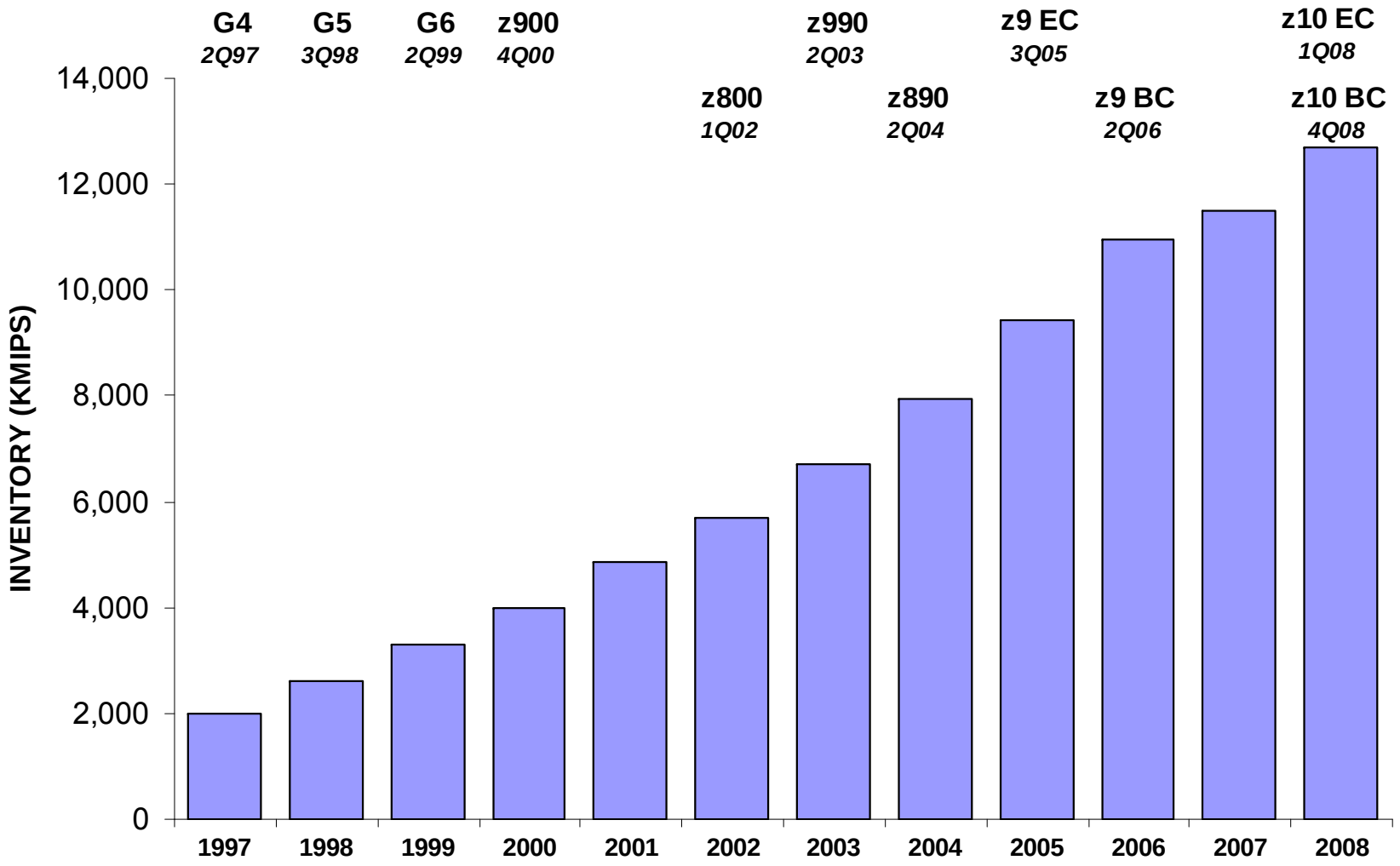
Performance …
Delivers unrivaled qualities of service

System z – A Superior Platform

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

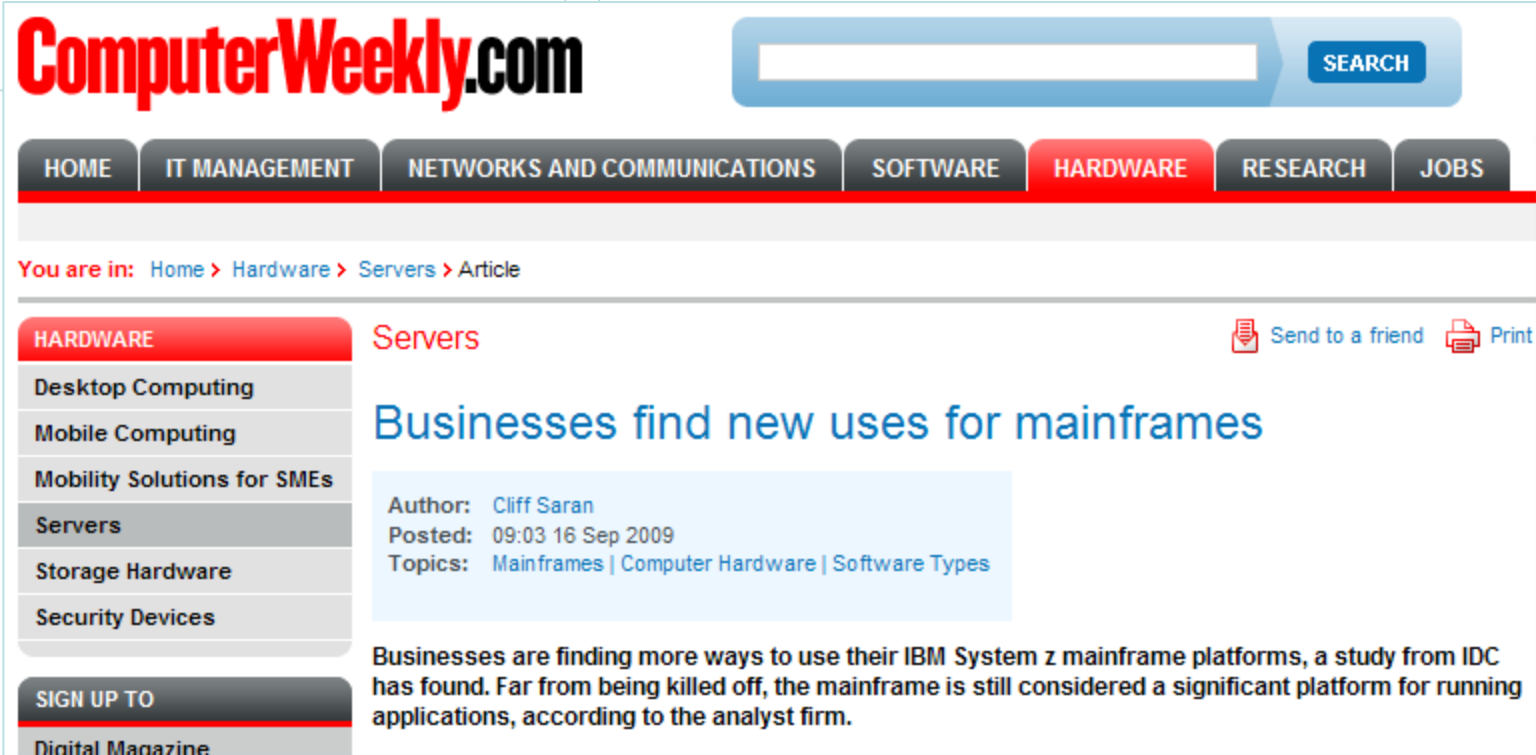
System z – the hardware is great… the software makes it smarter!

Solid Growth In Worldwide Mainframe Capacity



CAGR 1997-2008 = 18%

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



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)

Introducing Service Oriented Finance

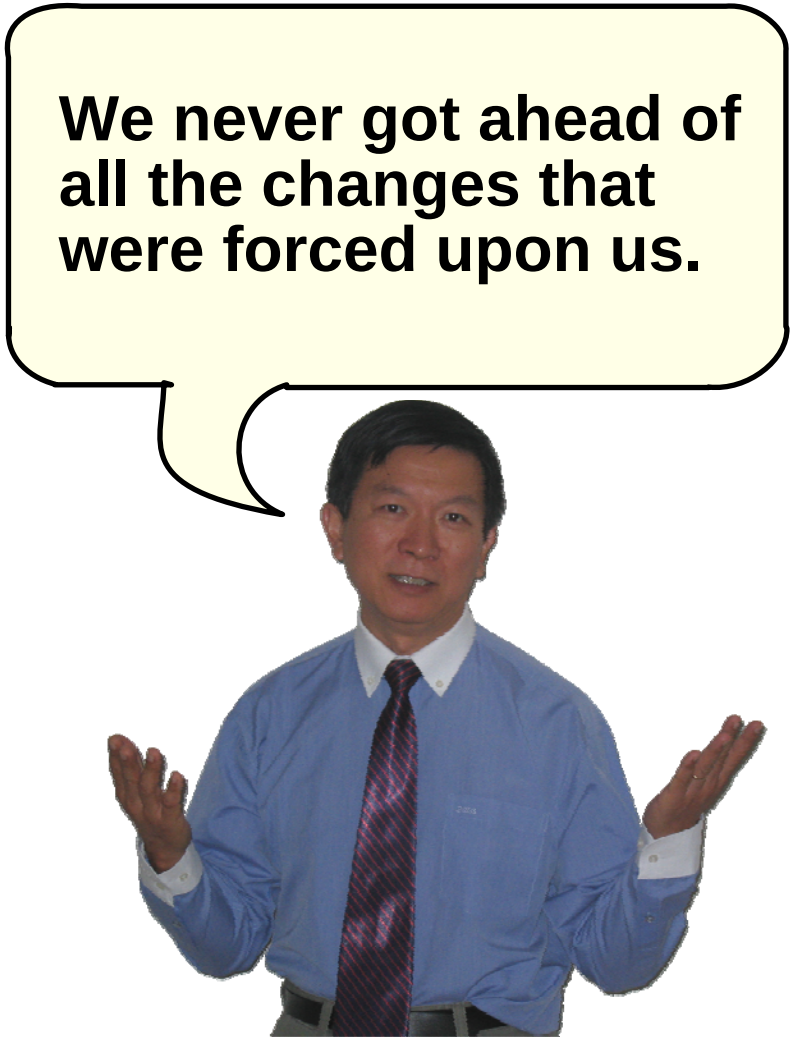
We are a traditional bank with branch offices throughout the country.

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

We need to cut costs!

Service Oriented Finance CEO

Service Oriented Finance



COO

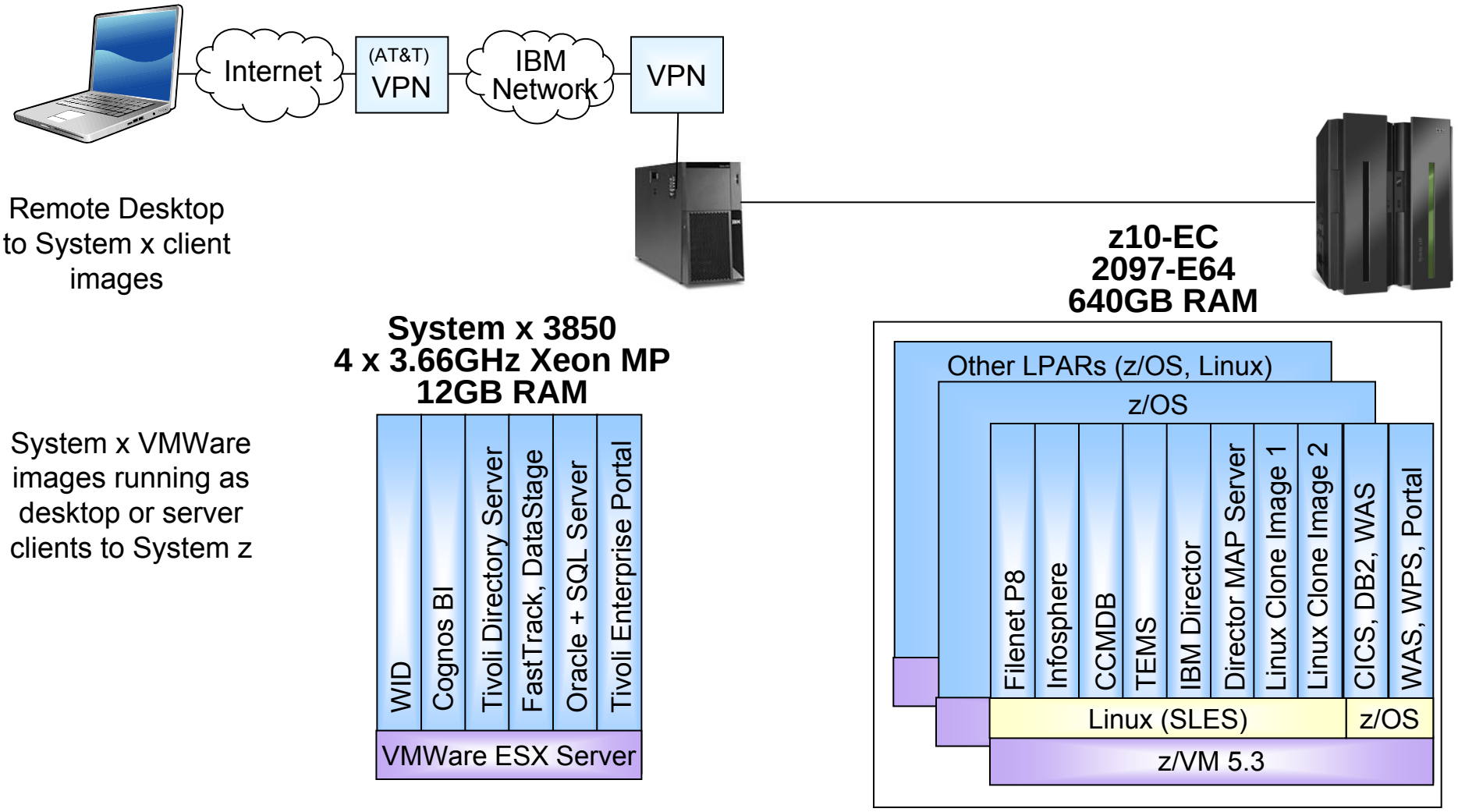
Service Oriented Finance

We had to cut staff.

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

Service Oriented Finance
CIO

DEMO: Architecture



Our Agenda Today

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