



Extending Your Mainframe for More Business Value

Affordable Business Growth
With System z

Quiz

How fast are IT costs growing?

A: Slower than business revenue growth

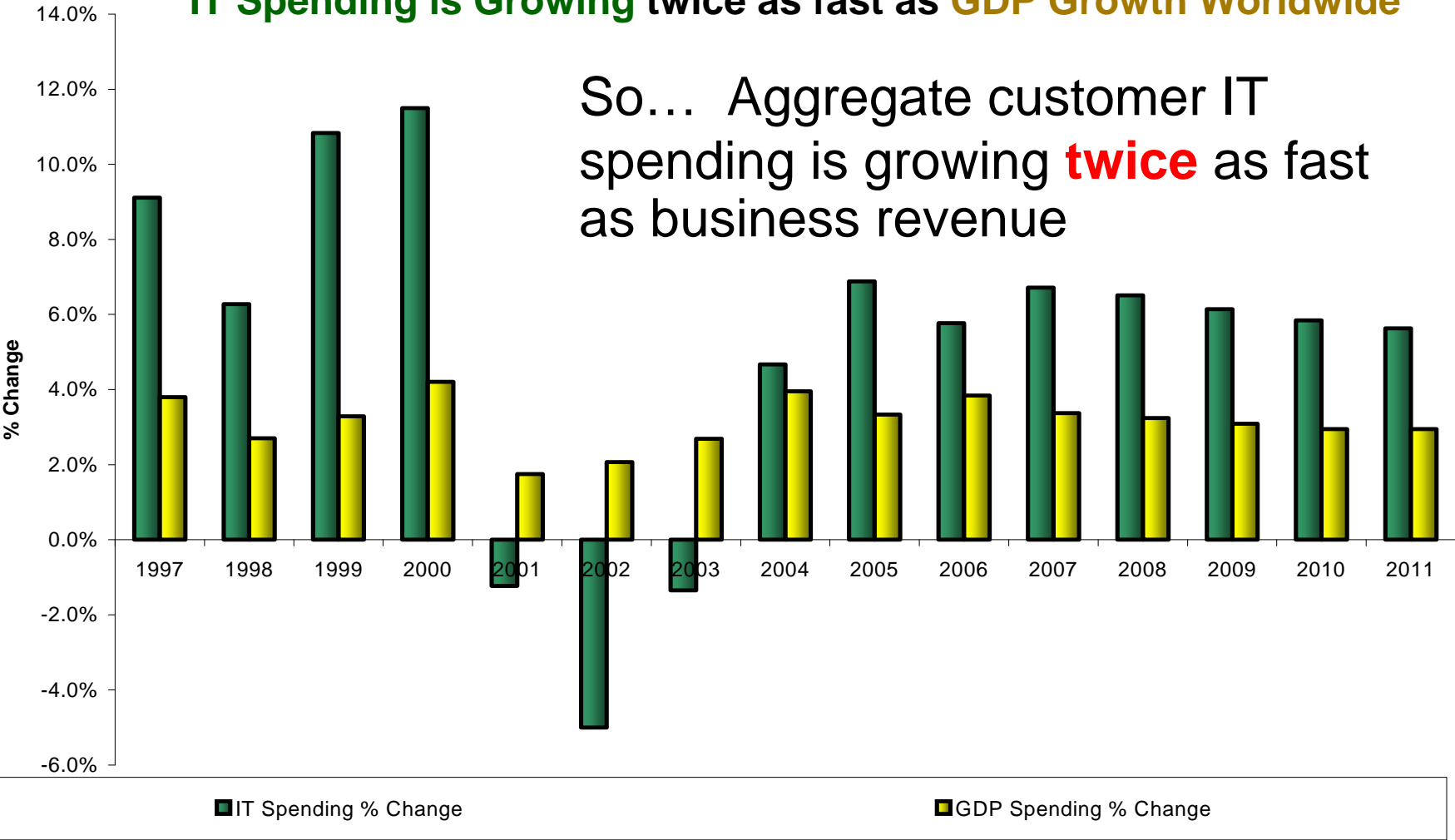
B: About equal to business revenue growth

C: Faster than business revenue growth

Top Down Analysis: IT Spending Growth

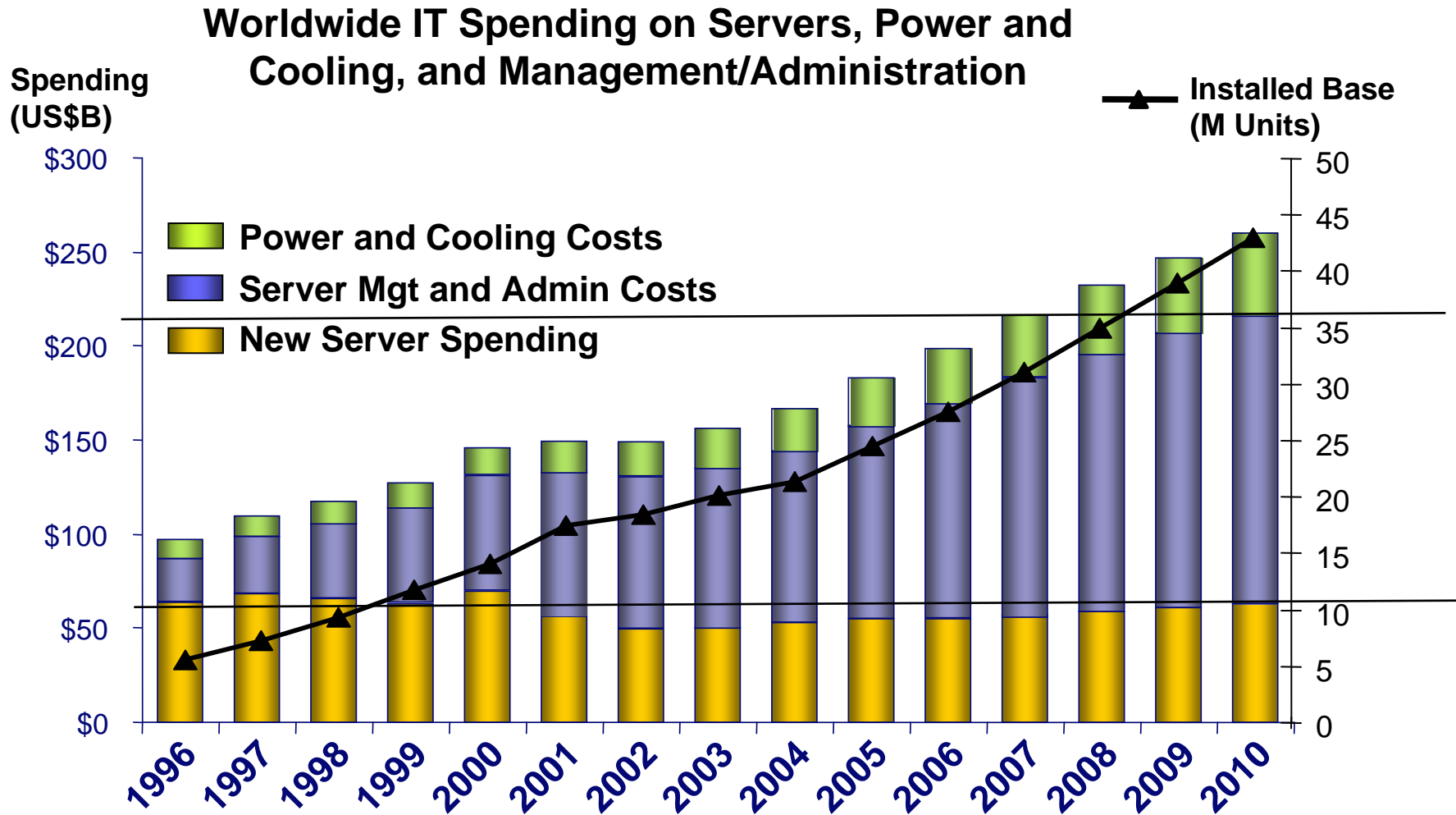
IT Spending is Growing twice as fast as GDP Growth Worldwide

So... Aggregate customer IT spending is growing **twice** as fast as business revenue



EIU Real GDP FORECASTS- % change on previous year and Total IT Spending – IDC estimates

Rising Operational Costs For Distributed Servers Are A Contributing Factor



Two Challenges

How can we

- **Extend business capability quickly?**

and

- **Prevent I/T expenses from growing faster than business revenue?**

Mainframe Extension Is A Winning Strategy

- Extension delivers new business capability *faster*
 - ▶ Building on the investments in I/T, data center and people skills
- Extension is a key cost-containment strategy
 - ▶ IT costs growing twice as fast as business revenue due to business imperatives and distributed deployments
- **Mainframe extension can help reduce IT spending growth from twice business revenue growth to equal or less business revenue growth**

A Growing Mainframe Customer Is A Business To Be Emulated

- A survey of 585 large or growing IBM mainframe customers:
 - ▶ Average business revenue growth **12.1%**
 - ▶ Average profit growth 21.9%
 - ▶ Average MIPS growth 24.3%
 - ▶ Average mainframe HW and SW spending growth **6.4%**
- These customers are extending their existing mainframes to deliver new business capability while constraining IT spending growth to **half** of business revenue growth

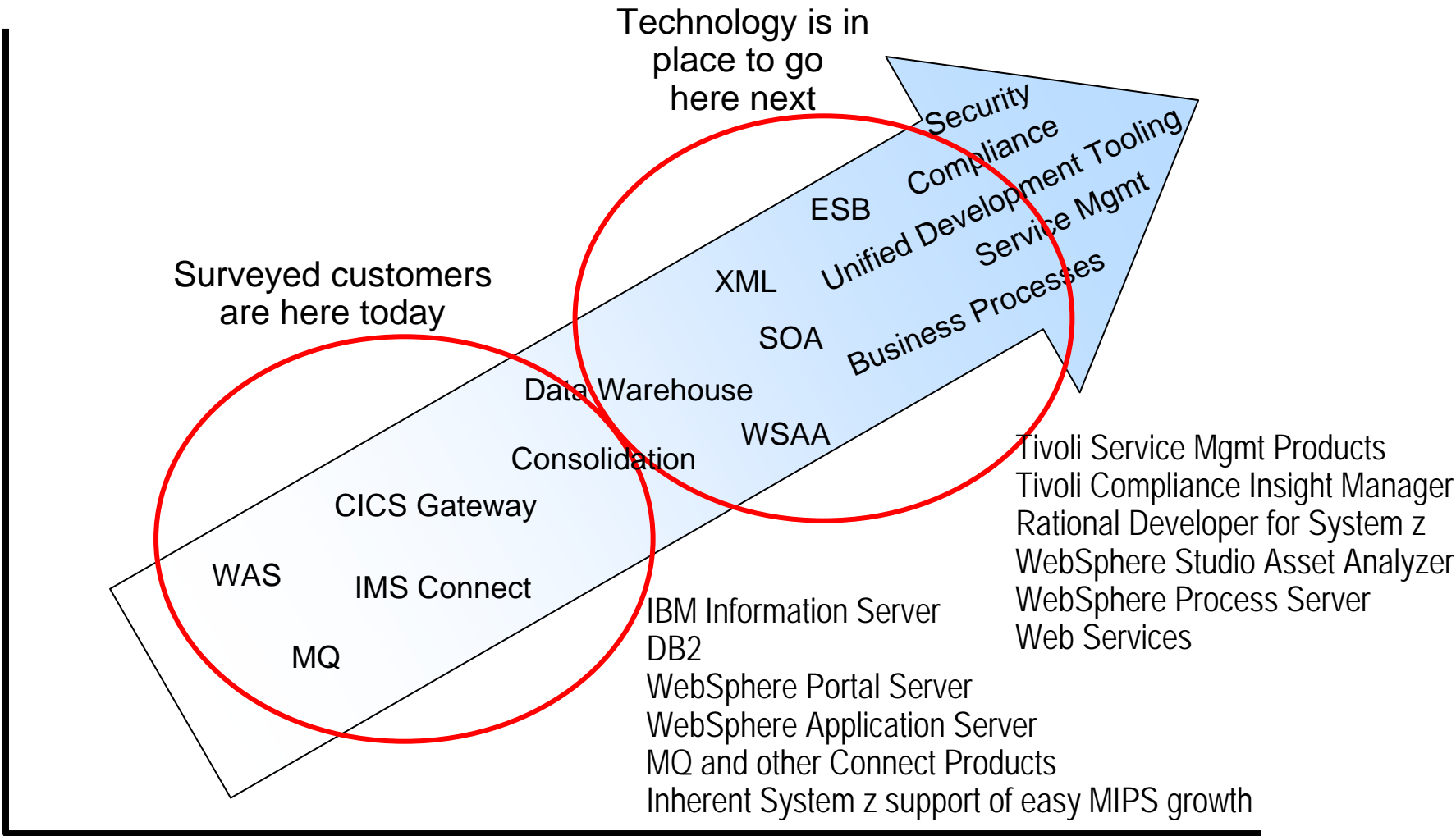
Mainframe Extension Solutions Achieve The Lowest Cost Of Acquisition

Scenarios	Cost of Distributed vs. z	Distributed Cost Ratio
Mainframe Extension		
– WebSphere Case Study	\$5.3M vs \$3.0M	1.8x
– Major Retailer	\$8.3M vs \$7.0M	1.2x
– SAP Database Server	\$4.5M vs \$2.3M	2.0x
– Data Warehouse	\$10.4M vs \$3.7M	2.8x
Linux Consolidation		
– IBM IGS	\$901.9M vs \$521.2M	1.7x
– Brokerage Firm (Power)	\$12.7M vs \$7.8M	1.6x
– Brokerage Firm (Floor)	\$25.5M vs \$10.7M	2.4x
– Major Bank	\$46.9M vs \$19.9M	2.4x

2.0X

Note: All pricing discussions in these presentations are dependent on specific customer situations
However wherever possible we have used typical pricing (not deeply discounted)

Technologies Are In Place For Mainframe Extension Solutions



“Specialty Engines” Reduce Cost For New Workloads

- Special assist processors for System z
 - ▶ For Java workloads (zAAP), up to 85% offload
 - ▶ For selected DB2 workloads (zIIP), up to 80% offload
 - ▶ For Linux workloads (IFL), 100% offload
- Attractive pricing
 - ▶ \$125K for a 920 MIP processor (92% discount)
 - ▶ No charge for IBM software running on zAAP/zIIP
 - ▶ IBM software running on IFL costs 120 PVU's
 - ▶ Free upgrade to next generation!



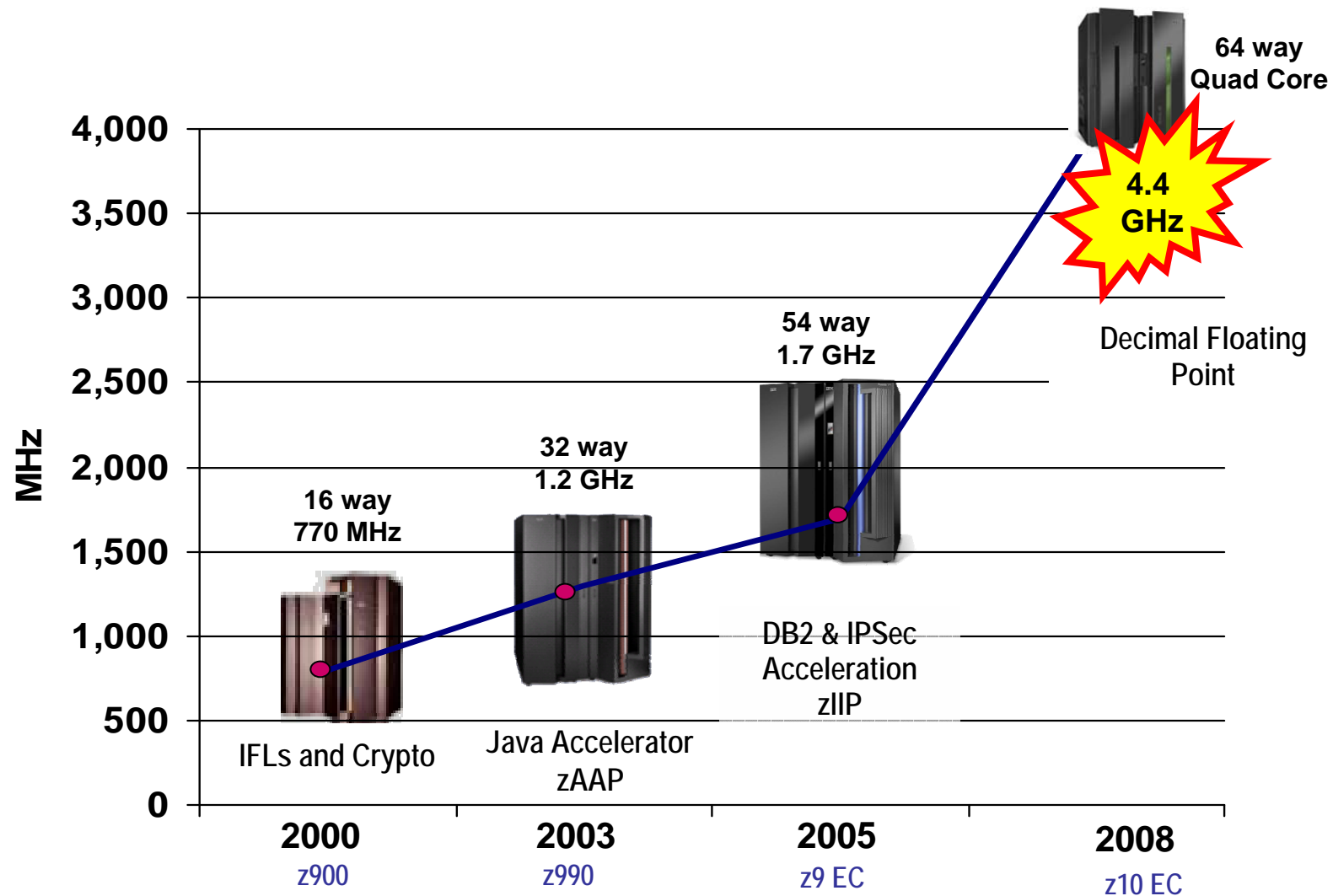
Mainframe Extension Solution – Organic Growth

- **Easy Growth of Existing Workload**
- **Large enterprises grow at 10%+ annually**
 - ▶ Top 25 Industry Leading Companies in the Fortune Global 500 grew 13% annually from 2005 to 2007
 - ▶ Top 59 Global Banks grew 22% annually in 2006
- **Key growth areas**
 - ▶ Expansion in geography and channels
 - ▶ Expansion in market segments
 - ▶ Mergers and acquisitions
- **Growing pains and requirements**
 - ▶ Business growth drives transaction growth
 - ▶ Need to seamlessly scale up workload capacity

Easy Organic Growth On The Mainframe

- System z designed to scale easily
 - ▶ Non-disruptive capacity on demand
 - ▶ System automatically uses new processor, memory, and storage capacity
- The cost of running incremental workload on the mainframe goes down as the total workload grows
 - ▶ Mainframe design and pricing policies favor the addition of more workload
 - ▶ Special hardware pricing for qualified types of organic growth
 - ▶ Lower software costs per transaction as workload grows
 - ▶ Labor costs hold steady as workload grows
- **Customers have learned that organic growth on the mainframe can be the most cost efficient choice**

z10 – Significant Performance Improvement



Comparison Of z10 Throughput With z9 (Both 1-way)

<i>Benchmark</i>	<i>CPU Use Profile</i>	<i>I/O</i>	<i>Memory sub-system</i>
Java-based Batch	heavy appl, light OS	light	light
Commercial Batch Long Job Steps	heavy appl, light OS	light	light
WebSphere Application Server and Data Base	medium appl and OS	light	moderate
Traditional On-line Workload	medium appl and OS	heavy	moderate
Web-enabled On-line Workload	medium appl and OS	moderate	stress

An experiment to improve industry-standard benchmark performance worsened these real-life benchmarks

Introducing Service Oriented Finance

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

Banking competitors and non-bank specialists are taking away our customers.



**Service Oriented Finance
CEO**

Service Oriented Finance

Our customers demand greater choice, and personal security and control in their banking relationships.

We need a next generation banking system!



Marketing

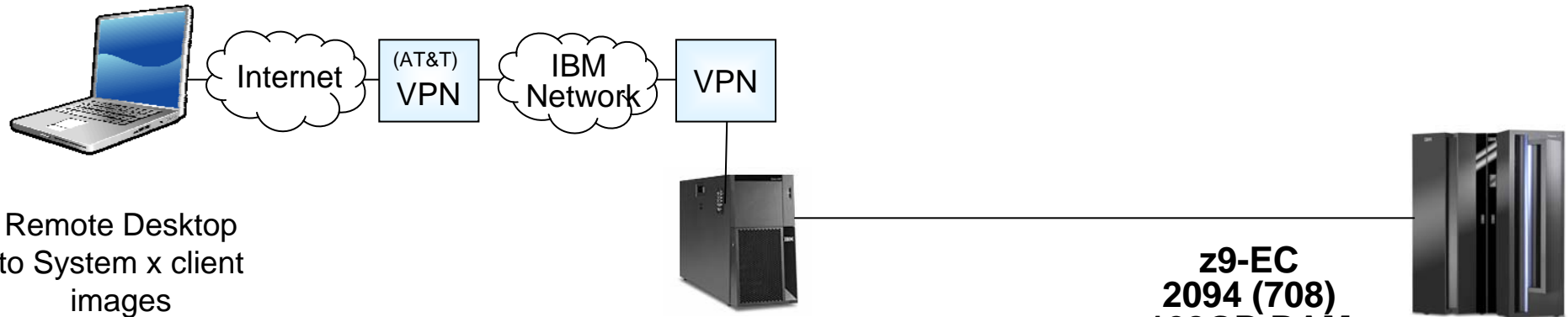
Service Oriented Finance

But we've invested a lot of money in our current IT infrastructure.



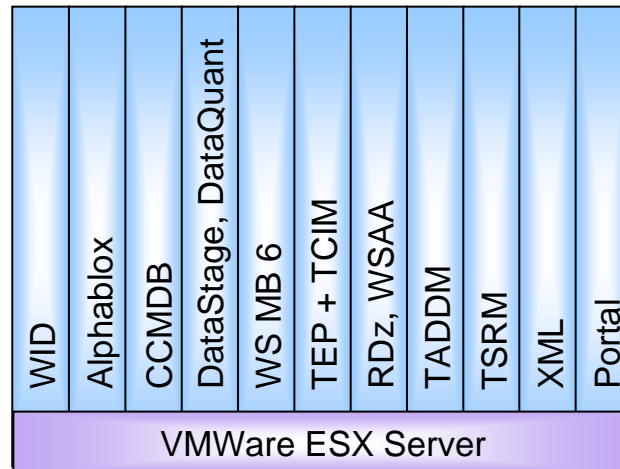
**Service Oriented Finance
CIO**

DEMO: Architecture

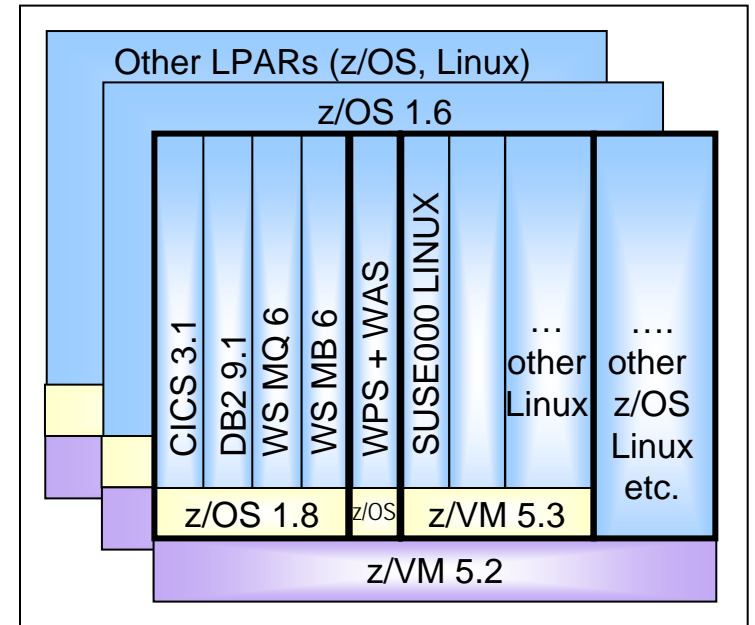


System x 3850
4 x 3.66GHz Xeon MP
12GB RAM

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



z9-EC
2094 (708)
128GB RAM



Our Agenda Today

Agenda	
30 minutes	Affordable Business Growth with System z
45 minutes	Extend Access Channels with SOA
45 minutes	New Data Workloads on System z
15 minutes	<i>Break</i>
45 minutes	Deliver Business Insight with a Data Warehouse on System z
30 minutes	Extend Connectivity With a Mainframe Communications Backbone
60 minutes	<i>Lunch</i>
45 minutes	Consolidate Workloads to Reduce Cost
20 minutes	Extend Data Security on the Mainframe
30 minutes	Extend IT Service Management
15 minutes	<i>Break</i>
45 minutes	Extend Development Team Productivity
20 minutes	Extend Your Investment in System z

