

System z BI and Analytics

Alan Meyer

Sr Marketing Manager

Data Warehousing on System z

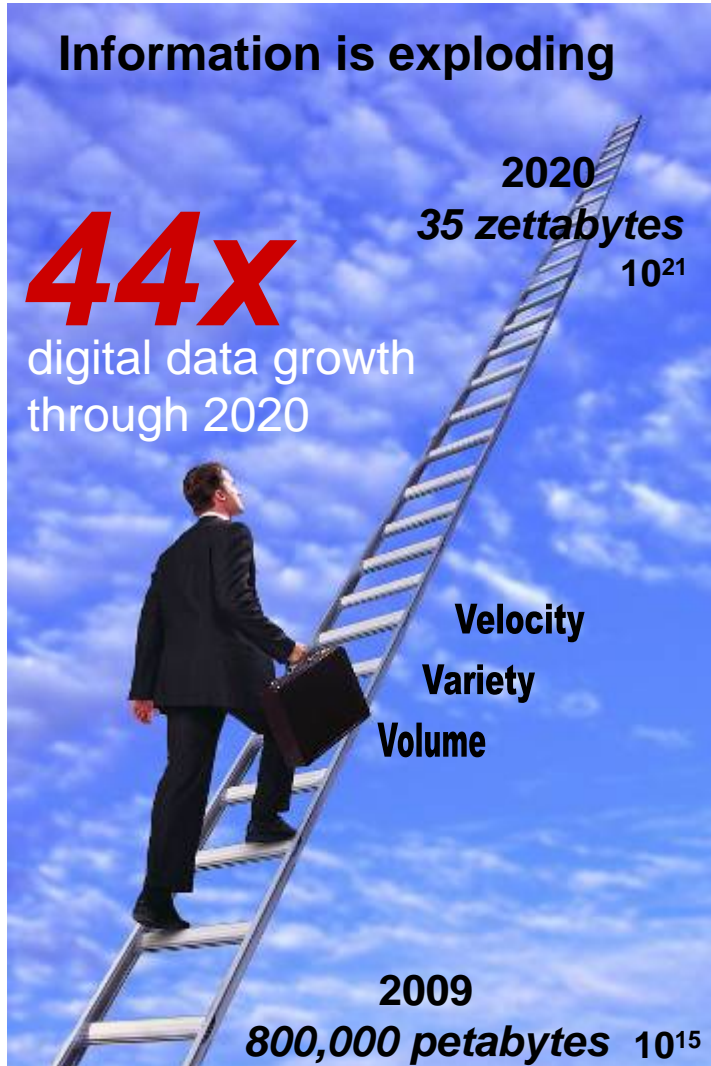
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4 Apr 2012



V7.2

Drowning in a sea of data with no information



1 in 2

Business leaders say they don't have access to the information they need to do their jobs

1 in 3

Organization leaders frequently make decisions based on information they don't trust, or don't have

220%

Organizations competing on analytics substantially outperform their peers

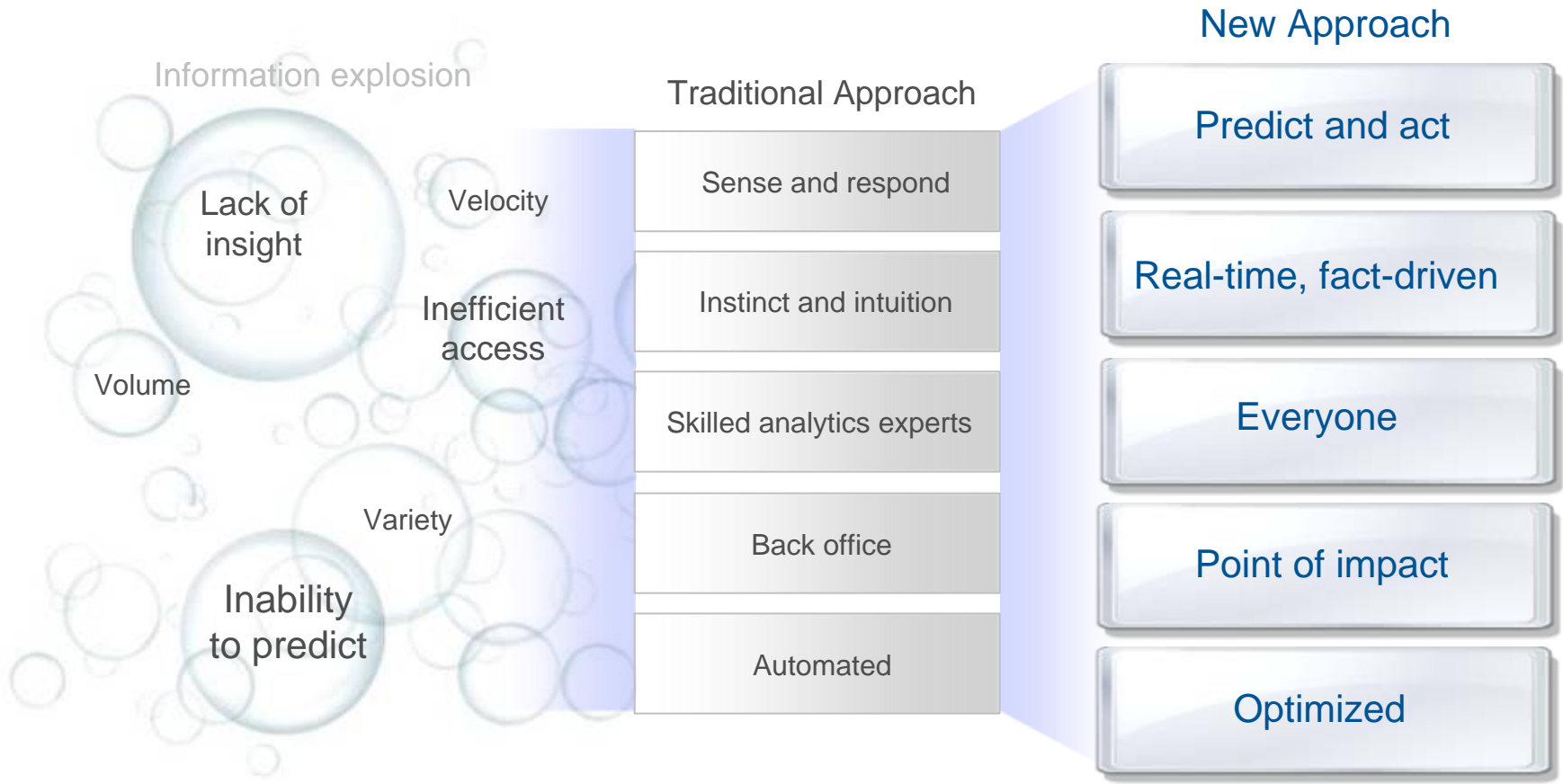
33%

Revenue growth and 12X more profit growth for organizations that apply advanced analytics

Sources:

- The Guardian, May 2010
- IBM IBV/MIT Sloan Management Review Study 2011. Copyright Massachusetts Institute of Technology 2011

Leaders adopt new ways to improve speed to impact



Imagine the Possibilities of Analyzing *All* Available Data

Faster, More Comprehensive, Less Expensive

**Approve a loan at
time of application**



**Detect and react
to fraud & abuse**



**Predict and up-sell on
intent to purchase**



**Anticipate crime and
threats**



**Identify demand before
it exceeds resources**



**Understand supply
chain vs current orders**



Imagine the possibilities

...predict and treat high-risk patients to proactively intervene at time of visit?

...identify suspects based upon initial witness information on arrival at scene?

...provide targeted cross sells that drive additional sales when offered at time of sale?

... predict correct order levels at time of purchase?



Physician

Police Detective

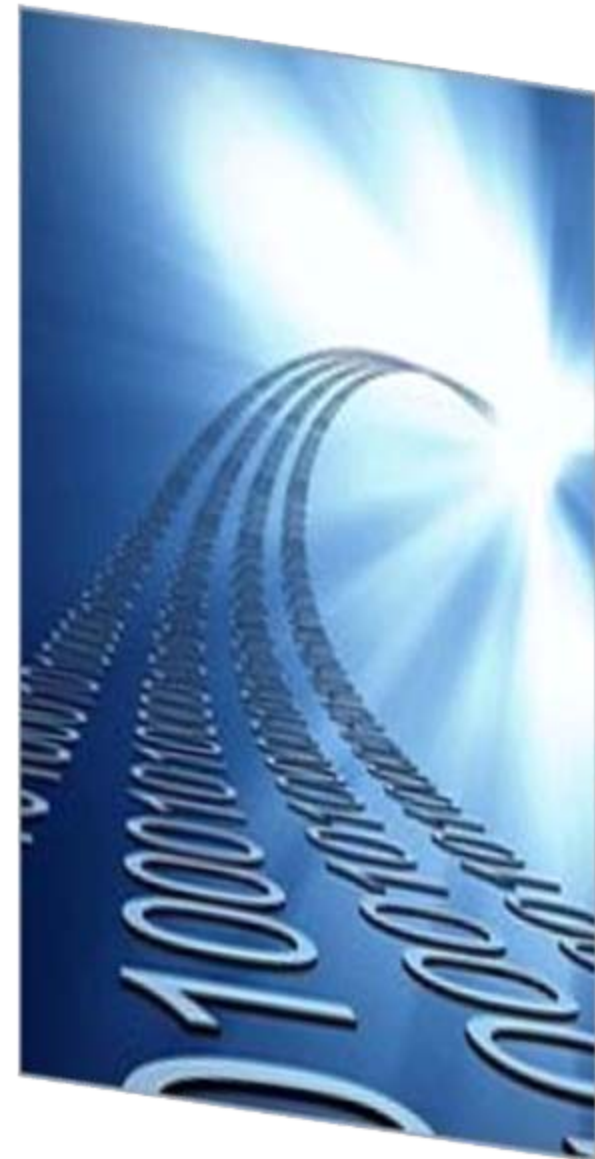
Retail Sales Manager

Purchasing Agent

...optimize every transaction, process and decision at the point of impact, based on the current situation, without requiring that everyone be an analytical expert

The market is moving to the strengths of System z

- **Enterprises are modernizing and extending functionally**
 - Better decisions from the right information
 - Informed decisions at the point of contact
 - Consistency of information across organizations
- **Which is driving operational characteristics requirements**
 - Cost of downtime is escalating
 - The impact of unauthorized intrusion and publishing of private information is overwhelming
 - Stringent Service Level Agreements
- **Newer applications demand lower latency of the data**
 - Businesses want the most up-to-date information they can get
 - Yesterday's information was good yesterday
- **All while focusing on reducing costs/ consolidating**
 - Lower costs through reduced complexity
 - Simplified environment with easier administration
 - Lower SW costs
 - Reduced costs through elimination of redundant servers and resources
 - Reduced footprint, environmental, and administrative costs



Analytics-driven Organizations Can...

Price by opportunity

...matching room prices to availability and customer type

- *Maximize inventory yield*
- *Best price, best yield for both Marriott and the customer in less than one second*



Analytics-driven Organizations Can...

Detect patterns

...rapidly map symptoms to cures

- *Clinical research studies*
- *Identify best practices*
- *Reduced time to cure and costs*



FLORIDA
HOSPITAL

The skill to heal. The spirit to care.



Analytics-driven Organizations Can...

Identify Risk

...and immediately control it



- *Insights into overlapping policies from multiple insurance companies*
- *Getting their reports as much as 70 percent faster*

Analytics-driven Organizations Can...

Increase agility

...rapidly respond with information

- *Immediate, accurate information*
- *No searching for data*
- *Timeliness of analysis*



Analytics-driven Organizations Can...



Anticipate demand

...and immediately match it

- Infusing business analytics into every new solution
- Able to scale to meet the demands of internal growth

IBM Smart Analytics System 9700

Mixed Workloads for Next Generation Business Analytics



The next generation of System z analytics; an integrated solution of hardware, software and services that enables customers to rapidly deploy cost effective game changing analytics across their business.

- ***Secure, Available Business Analytics***
- ***Simplified administration***
- ***Proven Operational Characteristics***
- ***High Value Operational BI***

Making every decision on facts at the point of impact

IBM Smart Analytics System 9710

Unprecedented Value in Deploying New Business Analytics



Introducing the IBM Smart Analytics System 9710 based upon the new zEnterprise 114 platform, delivering the quality of service of System z at an entry level cost.

- ***Foundation Offering***
- ***Small Footprint – Big Value***
- ***High Value Operational BI***
- ***Secure, Available Business Analytics***

Operational Businesses Analytics at an entry-level price

DB2 Analytics Accelerator

Accelerating decisions to the speed of business

Blending System z and Netezza technologies to deliver unparalleled, mixed workload performance for complex analytic business needs.



Get more insight from your data

- Fast, predictable response times for “right-time” analysis
- Accelerate analytic query response times
- Improve price/performance for analytic workloads
- Minimize the need to create data marts for performance
- Highly secure environment for sensitive data analysis
- Transparent to the application

The Move from Distributed to Consolidation

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Data center consolidation improves cross-agency cooperation

Initiative emerges as enabler of information sharing

By [William Jackson](#) Jun 16, 2010

The government's data center consolidation effort is emerging as an enabler of information sharing between agencies, a panel of intelligence and security officials said Tuesday.

The Homeland Security Department began five years ago the task of folding 24 data centers into two, said Deputy Chief Information Officer Margaret Graves. The two recently went into operation. "We also are availing ourselves of the opportunity to modernize," and to make data accessible across the enterprise and not just to the system or information owner, Graves said.

...access management controls in the new ... level, she said.

LA council looks for cost savings in computer consolidation

By Rick Orlov Staff Writer
Posted: 02/22/2010 06:58:16 PM PST
Updated: 02/22/2010 07:09:30 PM PST

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Eyeing annual savings of up to a half-billion dollars, the Los Angeles City Council asked Monday for a report on a proposal to consolidate the city's myriad operations into one agency.

Similar plans have been proposed over the years, but council members are now feeling pressure to do so because of the city's dire financial outlook.

Under the plan, most of the separate computer operations of the Los Angeles Police and Fire departments will be transferred to the city's Information Technology Agency over the next five years.

"This is a vast infrastructure in the city where we can identify efficiencies, in space and people," Councilman Robert Cardenas said. "We will be saving time and money when it comes to the people we need. I think we can save at least \$250 million and, possibly, up to \$500 million" a year once everything is consolidated.

Officials with the three departments said they were working on merging many of the computer operations into one system that will allow the Police and Fire departments to review and send classified information under separate operations.

Deputy Chief Sandy Jo MacArthur said the LAPD is looking at other cities for guidance on how to consolidate operations more efficient.

Los Angeles is facing a \$212 million shortfall this year and another \$484 million next year in the city's \$7.1 billion budget.

DesMoinesRegister.com

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BLOG: IOWA POLITICS INSIDER

Culver orders consolidation of computer systems; \$27 million in savings

BLOG POST BY JASON CLAYWORTH • JCLAYWORTH@DMREG.COM • OCTOBER 2010

Why Consolidate?

- **Server and software cost savings**
- **Increased data protection and security**
- **Better resource utilization**
- **Reduced complexity and simplified management**
- **Easier disaster recovery**
- **Greater flexibility to meet changing needs**
- **Easier revision control**



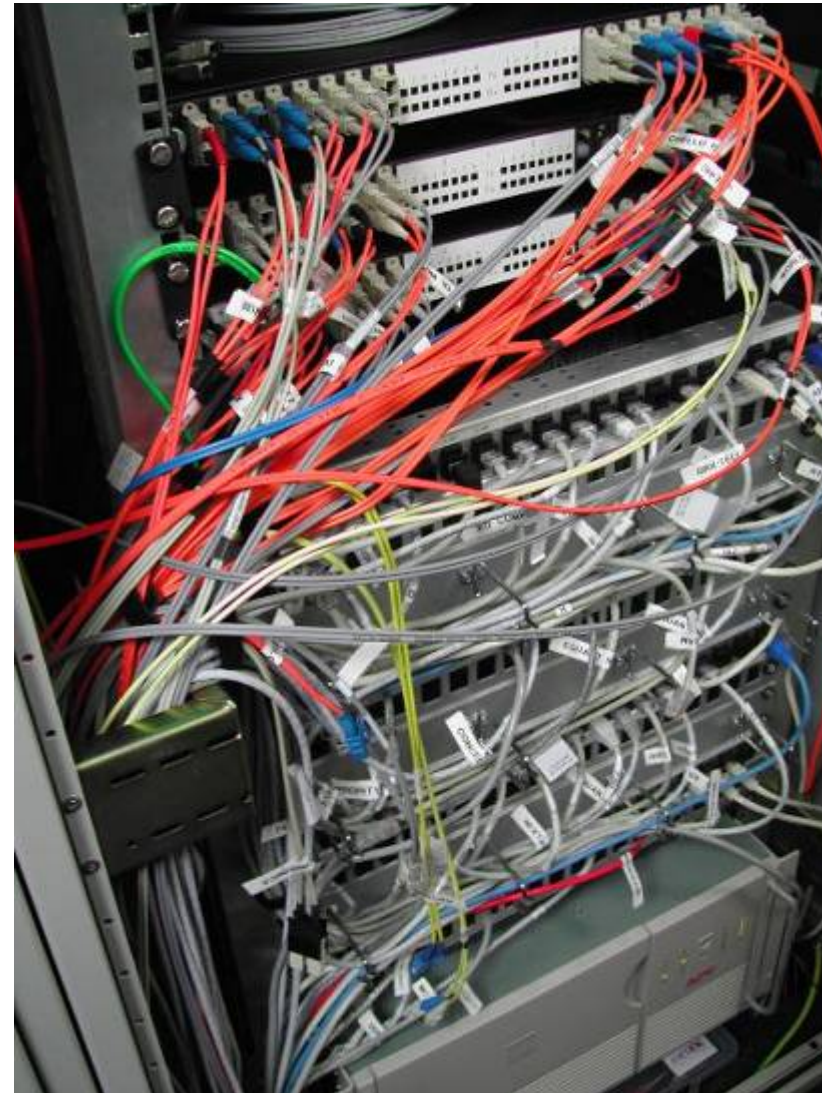
The financial impact of consolidation onto System z can be substantial, with savings of up to 70 percent in total cost of ownership compared to distributed platforms

Source: ECM 'Big Green' Project

Focus on reducing costs - *Reduced Complexity*

Consolidation means:

- Fewer servers to administer
- Fewer devices to interconnect
- Most network interface cards, hubs, routers and switches are eliminated
- Fewer cooling fans
- Fewer wires to connect
- Fewer points for security breaches
- Fewer points for failure



Mainframe Centric Customers See Big Savings

Based on an analysis of actual IT spend and business performance, comparing companies with greater than average mainframe mix vs. less than average mainframe mix...*



44%

lower IT cost per credit
card transaction



31%

lower IT cost per
consumer loan



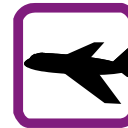
25%

lower IT cost per mega
watt hour produced



24%

lower IT cost per
hospital bed



20%

lower IT cost per
airline passenger



26%

lower IT cost per
new vehicle



25%

lower IT cost per
retail store



23%

lower IT cost per
barrel of oil

"...in the long run the marketplace rewards those that make the optimum use of the right computing resources in the right way as evidenced by business performance"

Dr. Howard Rubin, CEO and Founder, Rubin Worldwide

System z – The Undisputed Leader

Highest availability on the planet

- Continuous availability during trading periods
- Non-disruptive upgrades of HW, z/OS, and subsystems, including DB2
- Built-in system redundancy (memory, cooling, power...)
- Comprehensive multi-site disaster recovery

System-level mixed workload management with full resource utilization

- System-level WLM manages all resources
- 100% utilization, 24 hours a day
- Most cost effective SLA

Real-world scalability with performance

- Superior in the industry
- Scale out with absolute access during business trading periods

Unmatched end-to-end security

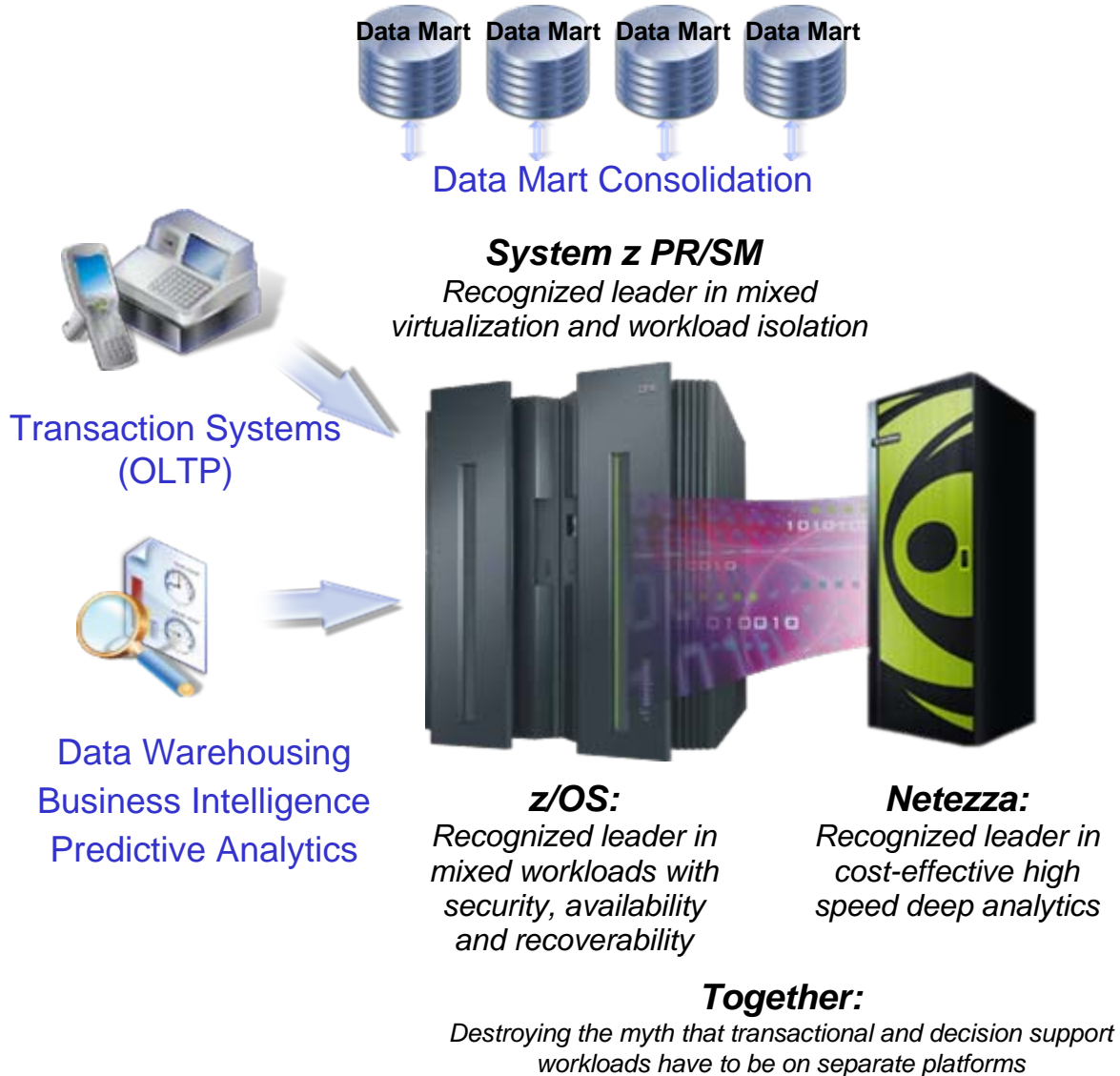
- From logon through data encryption
- Never been hacked

The most cost effective platform to manage and maintain



With its unique architecture and deep integration with System z, DB2 for z/OS is the undisputed leader in total system availability, scalability, security and reliability.

The Ultimate Consolidation Platform



Bringing it all together

- *Better Business Response*
- *Reduced Costs*
- *More Available*
- *More Secure*
- *Reduced Data Movement*
- *Reduced Data Latency*
- *Reduced Complexity*
- *Reduced Resources*

Today's IBM System z is ...

- **The world's most trusted transaction processing and data server for business critical applications**
- **The world's most cost-efficient platform for data center consolidation and virtualization**
- **The world's most dependable and scalable hardware and middleware platform for new business applications**
- **A thoroughly modern application environment for traditional and Cloud delivery models**



The zEnterprise 196 is the world's fastest and most scalable enterprise system. (50 BIPS)

Based on 5.2GHz core processor speed

The text 'Thank You' is rendered in a large, 3D, metallic grey font. The letters are thick and have a slight shadow on the surface below them. The text is centered horizontally and has a soft reflection on the white background below it.

Data warehouse choices from IBM

Which is the right choice?

Distributed	Netezza	System z 9700/ 9710	System z with DB2 Analytics Accelerator
			

New value when building a decision system

Unmatched capabilities when combining the Smart Analytics System 9700 and the DB2 Analytics Accelerator

Smart Analytics
System 9700 / 9710



DB2 Analytics
Accelerator



*Higher
Performance*

Faster ROI

*Immediate
Value*