

**SOGETI**

**IBM Information Management**



# Welcome ! Sogeti Business Intelligence Symposium 2010

October 4, 2010



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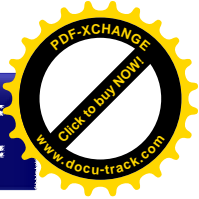
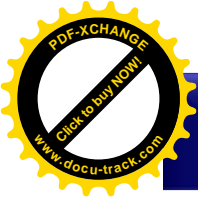
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## IBM Information Management, A Sneak Preview

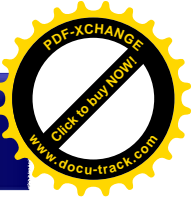
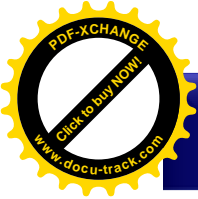
### The Next Generation Data Warehouse Platforms



**Since 4 years, Business Intelligence and Analytics are Priority #1 in the minds of CIO's. However this already exists since decades...**

**Business Intelligence and Warehousing is not a project, but a life cycle. This session will outline the trends seen by IBM for the future, the next wave in the life cycle of Data Warehousing, Analytics and BI.**

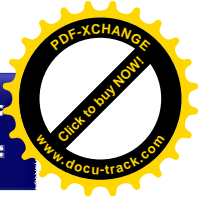
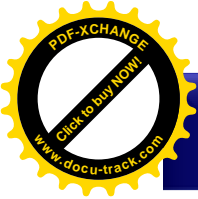
Trends & The Next Wave in Datawarehousing, Analytics and BI



You as a data warehouse professional, or you work closely with one, you probably noticed many new options for dwh platforms that have appeared this decade ??

Emergence of new categories :

- Data Warehouse Appliance
- Software Appliance
- Business Intelligence and Analytics Appliance
- New interest in Columnar DB's
- Open Source Linux intro
- Open Source DB's intro
- In Memory DB's intro
- Data Integration Platforms
- 64bit computing intro
- Extreme Data Compression Techniques
- Multi Temperature Datawarehouse
- More features and products conducive to data warehousing ...



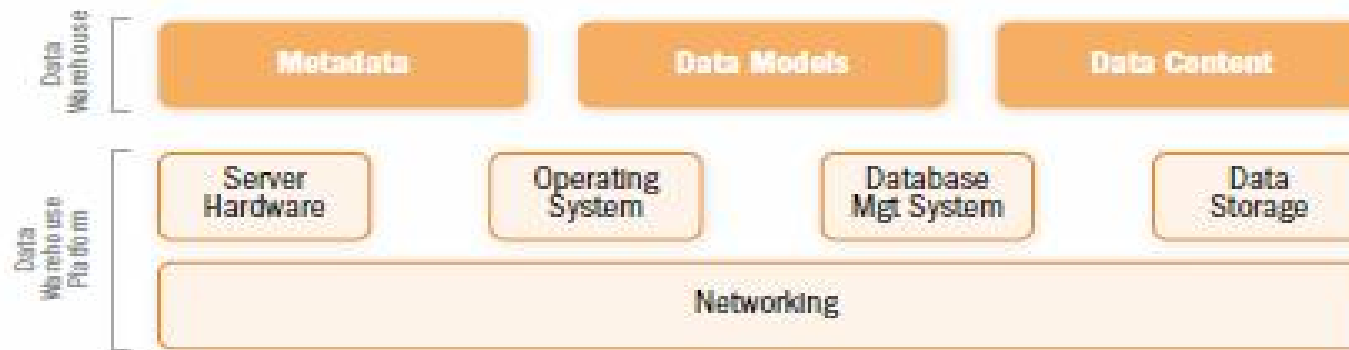
You as a data warehouse professional, or you work closely with one, you probably noticed many new options for dwh platforms that have appeared this decade ??

Emergence of new categories :

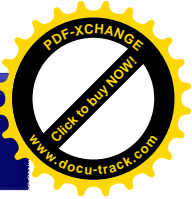
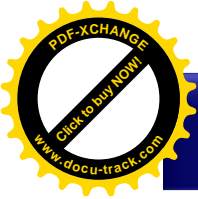
- Real Time Integration between Operational Applications & BI
- Data Lineage between Report and Data Sources
- Reuseable Interfaces exposed through Web Services / S.O.A.
- SAAS
- Cloud Computing
- ...
- Good News : We have more options
- Bad News : It is difficult for professionals and their business sponsors to keep track of these advancements and select the ones appropriate for their needs ...

## A Traditional Data Warehouse Platform

A DWH platform has five basic components : Server hardware, Operating System, Storage hardware, Database and network.



*Figure 1. A data warehouse platform manages a data warehouse, but the two are separate.*

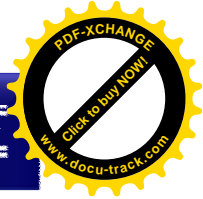
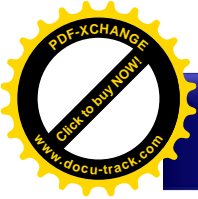


## Next Generation Data Warehouse Platforms

What's next, for a given organization's data warehouse platform, can vary tremendously !!

In many cases, generational change is an evolutionary process that adapts the resulting data warehouse to changing business and technology requirements ...

- Businesses face change more often than ever before
- DWH platforms need updating to support changing business requirements
- DWH platforms need a complete refresh
- Successful DWH's mature through multiple lifecycle stages
- There's probably a new generation in your near future : 2009 – 2014 (TDWI, Gartner, ...)
-



# Why are so many organisations planning change in current platform ?

## Technical Deficiencies can make an Old DWH Platform Ripe for Replacement

What problems will eventually drive you to replace your current primary data warehouse platform?  
(Select nine or fewer.)

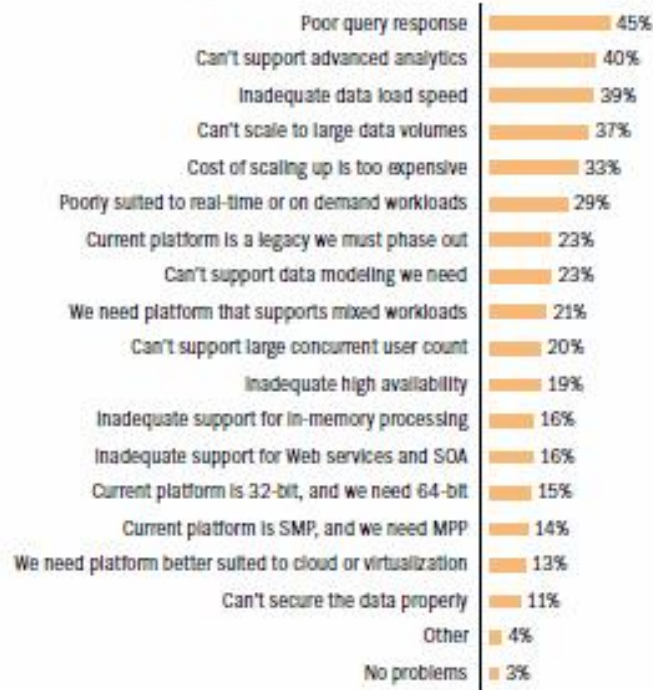
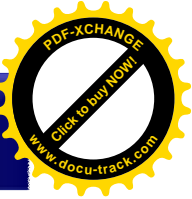
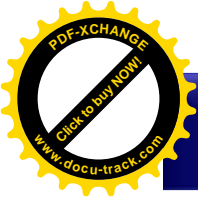


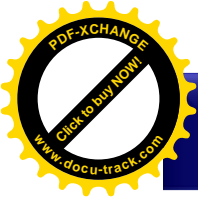
Figure 3. Based on 1,752 responses from 417 respondents; 4.2 responses per respondent on average.



## Why are so many organisations planning change in current platform ?

Business Drivers for New Generation of DWH Platforms :

- New Technology drivers are really business drivers ...
- Analytics of various types help the business cope with change and discover new opportunities (85% => Future)
- Real Time and related technologies are enablers of operational excellence
  - Economic, competitive and quality issues put pressure to achieve higher levels of operational excellence : Operational BI, On Demand Dashboards and Performance Management, JIT Inventory and manufacturing, ...
- Scalability enables Business Growth
  - Think Big, Start small, then Grow – (Ref : Presentation 3/Lieve)
  - Start Quick and Dirty, then hit The Wall
- Performance
  - In Memory DB operations
- Warehouse architecture and related practises affect a DWH's ability to support a business
  - SMP, SMP cluster, MP, MPP, ....



## Your Data Warehouse Today and Tomorrow ...

Today, most DWH platforms are assembled by In-House personnel  
Today, most DWH platforms are installed on-site

For your organization's current, primary data warehouse platform, which of the following best describes its origins? For your organization's next generation data warehouse platform, what would you prefer that its origins be?

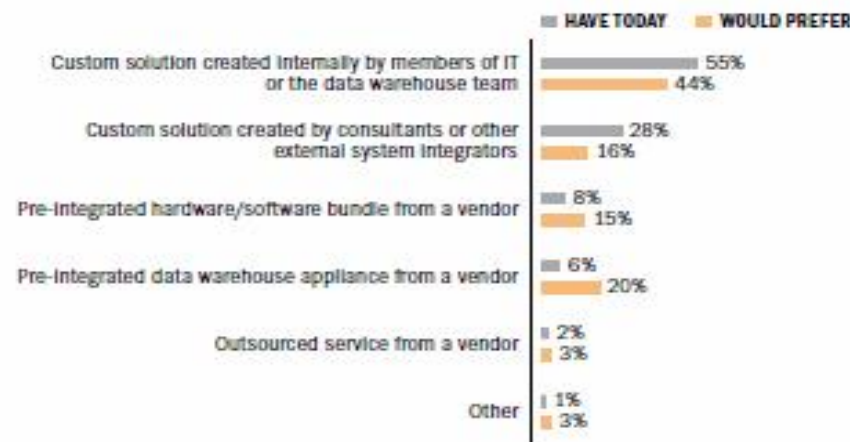


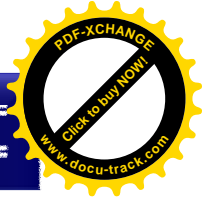
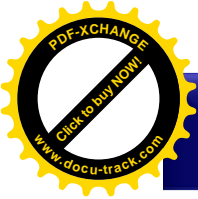
Figure 4. Based on 417 responses.

*Unpack, Install, Implement vs. Configure, Design, Test, Develop*

*Plug It In & Go*



IBM Smart Analytics System



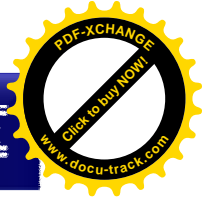
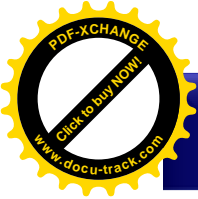
### The Multiple Vendor Synergy Story : You Assume The Risk of Making These Best of Breed Tools Work Together



A: You



- § Time To Value – **Slow : 4 to 6 months**
  - Complex deployments, multiple products and technologies
- § Cost Planning – **Fuzzy?**
  - Multiple vendors, multiple price tags, multiple estimates, integration costs
  - Hidden Cost of your efforts to implement this ?
  - Worst TCO over multiple years
- § The Risk of integration
  - You assume all of the responsibility and risk of making these best of breed tools work together.
- § Continued Investment to keep the performance
  - You assume all the costs to keep it up and running and in shape.
- § Customer Support
  - Multiple numbers, multiple problems, never one throat to choke



# Your Data Warehouse Today and Tomorrow ...

Today, most DWH platforms are assembled by In-House personnel  
Today, most DWH platforms are installed on-site  
Today, Data Volume Growth is a Generational Driver ...

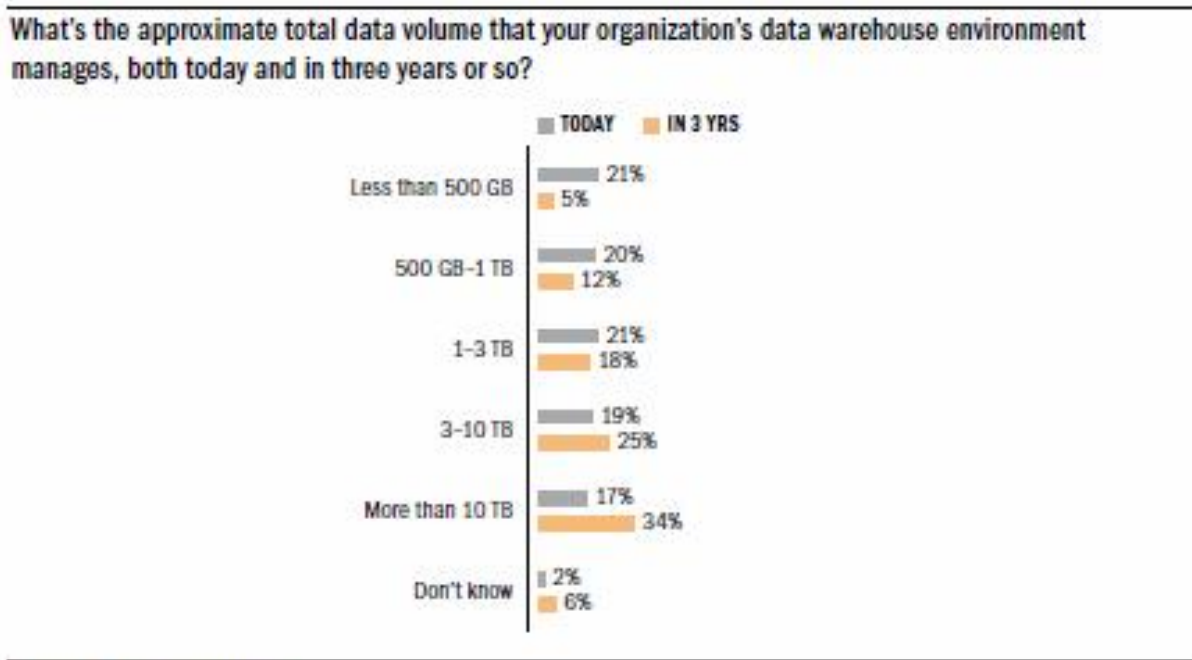
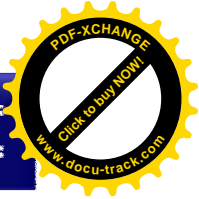
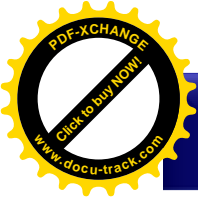


Figure 5. Based on 417 responses.



## Your Data Warehouse Today and Tomorrow ...

Today, most DWH platforms are assembled by In-House personnel

Today, most DWH platforms are installed on-site

Today, Data Volume Growth is a Generational Driver ...

Today, The Economy as a Generational Driver ...

How is the current economic recession affecting data warehousing teams and projects in your organization? (Check all that apply.)

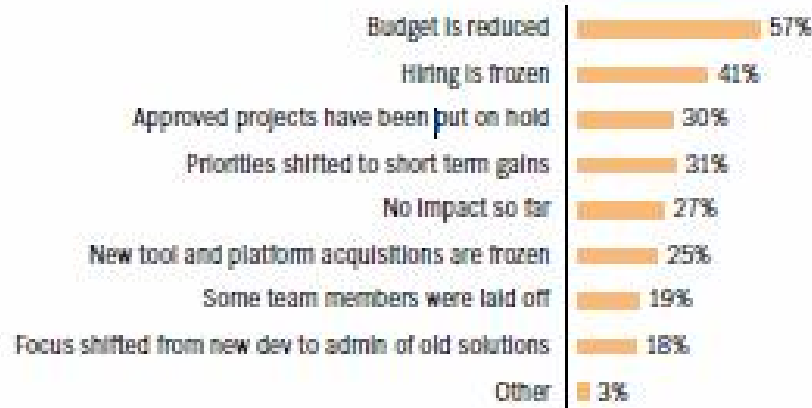
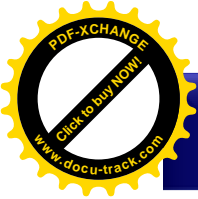


Figure 6. Based on 1,049 responses from 417 respondents; 2.5 responses per respondent on average.



# Trends for Next Generation Data Warehouse Platforms ...

DW Platform Features and Techniques Plotted for Delta (Growth) and Plan To Use (Commitment)

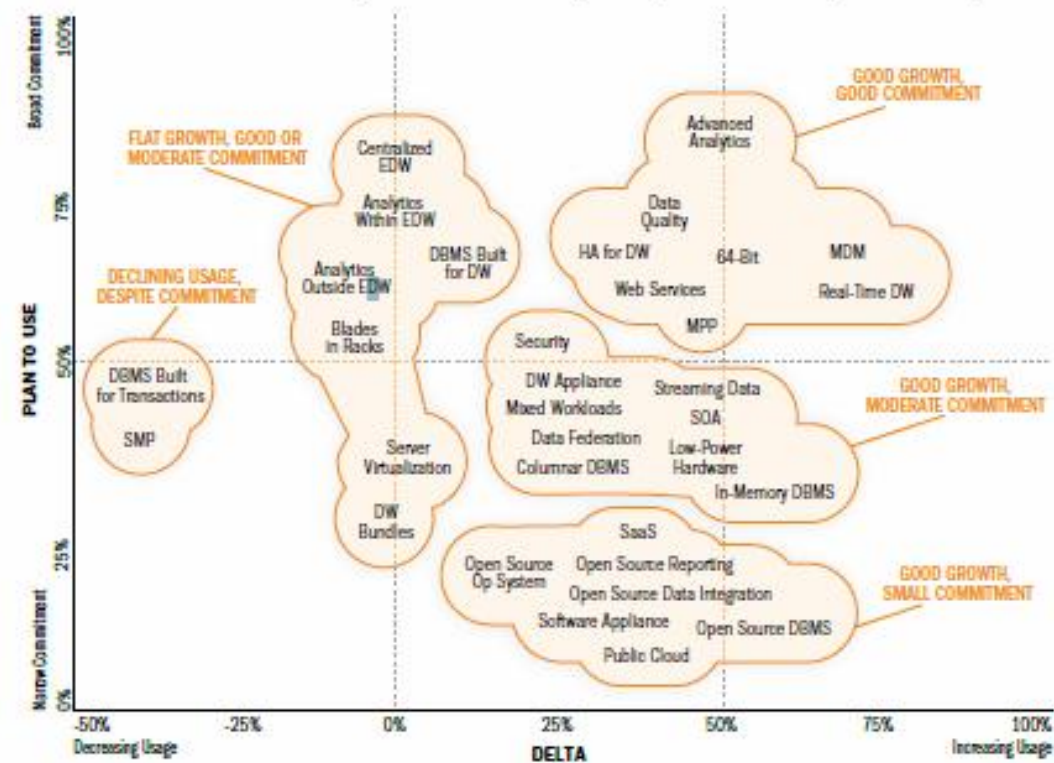
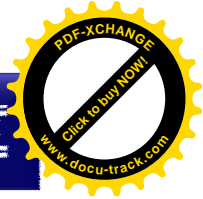
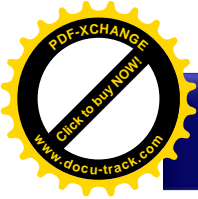
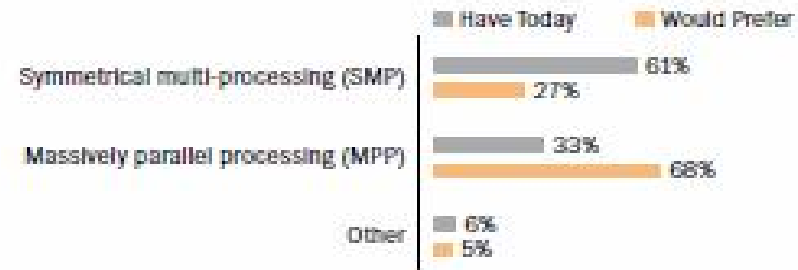


Figure 9. Plots are approximate, based on values from Figure 8.

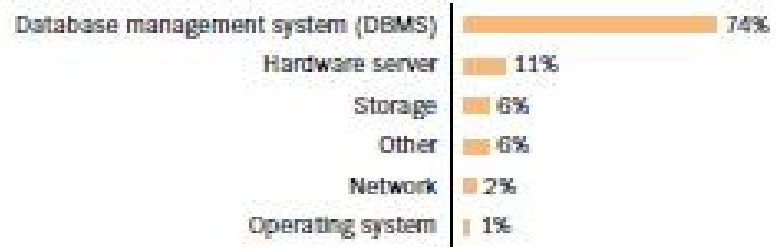


# Trends for Next Generation Data Warehouse Platforms ...

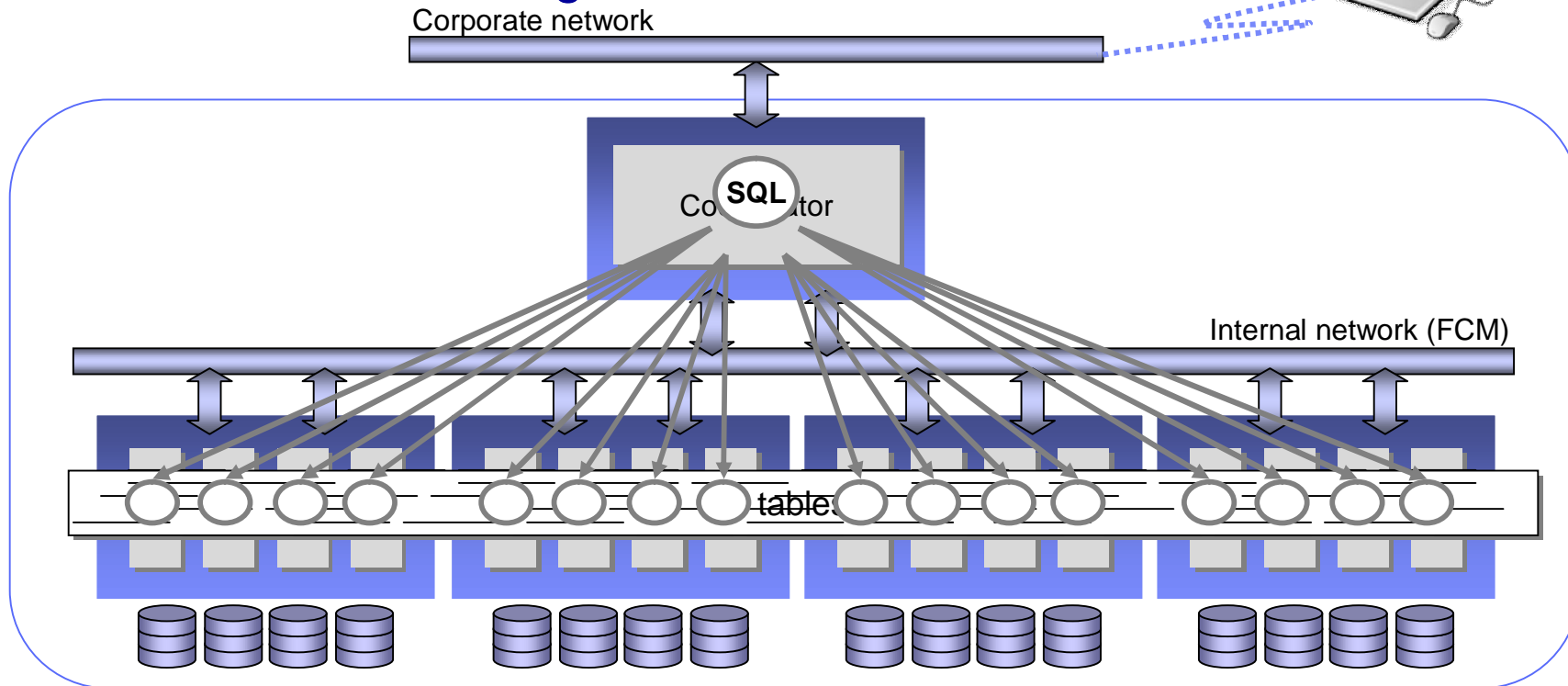
Today, which processing architecture is your data warehouse on? Ideally, which processing architecture would you prefer for your data warehouse platform?



Of the components of your data warehouse platform, which do you feel is the most critical to success?

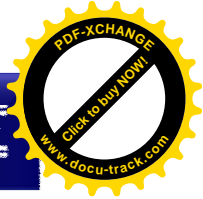
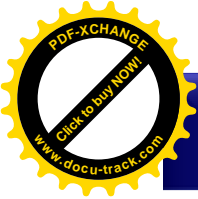


# MPP Grid with Partitioning

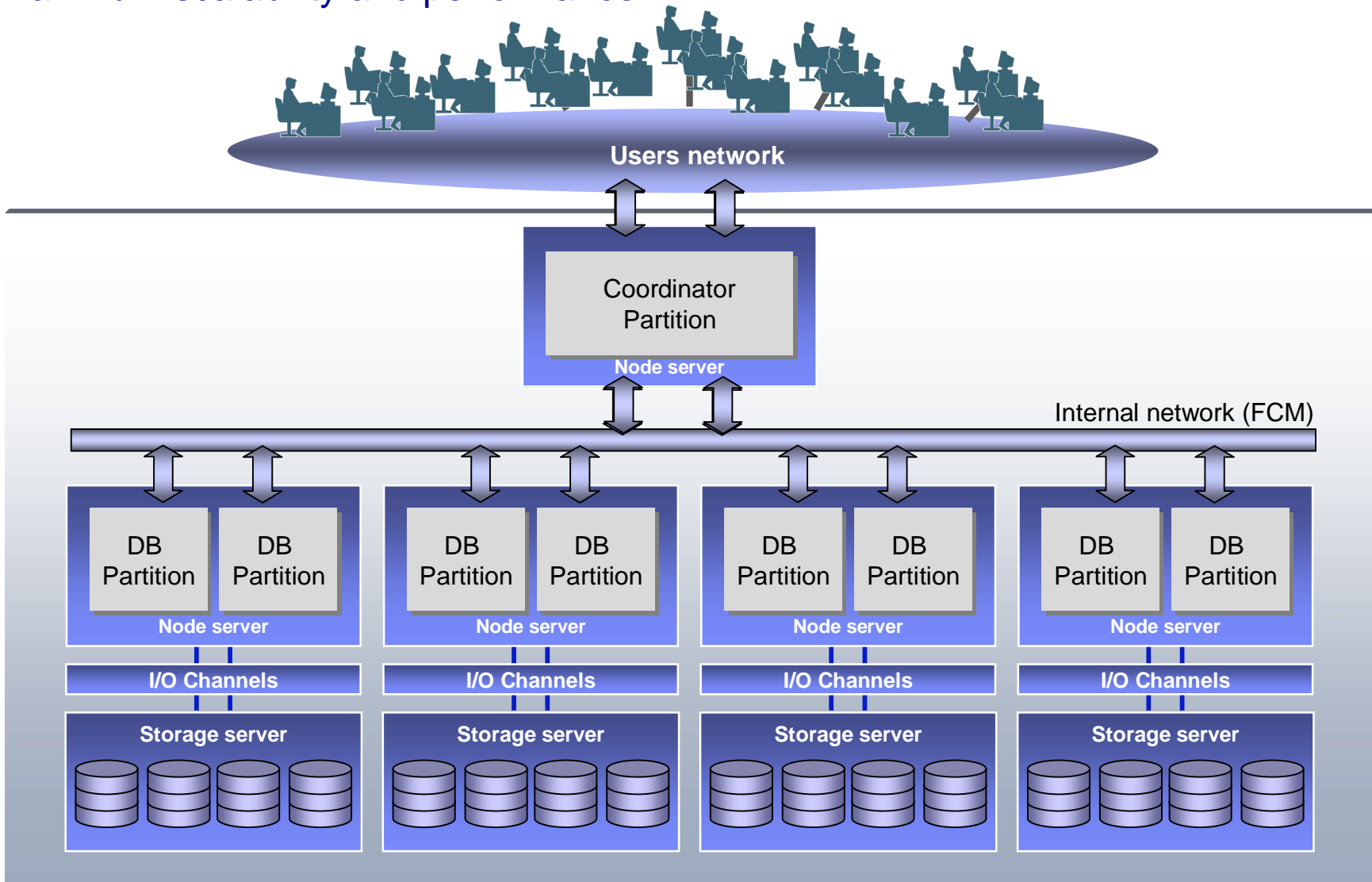


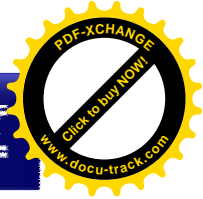
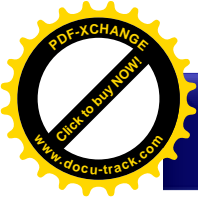
## Partitioned Database Model

- § Database is divided into multiple partitions
- § Partitions can run on different nodes
- § Each Partition Server has dedicated resources
- § Parallel Processing occurs on all partitions and is coordinated by the DBMS
- § Single system image to user and application

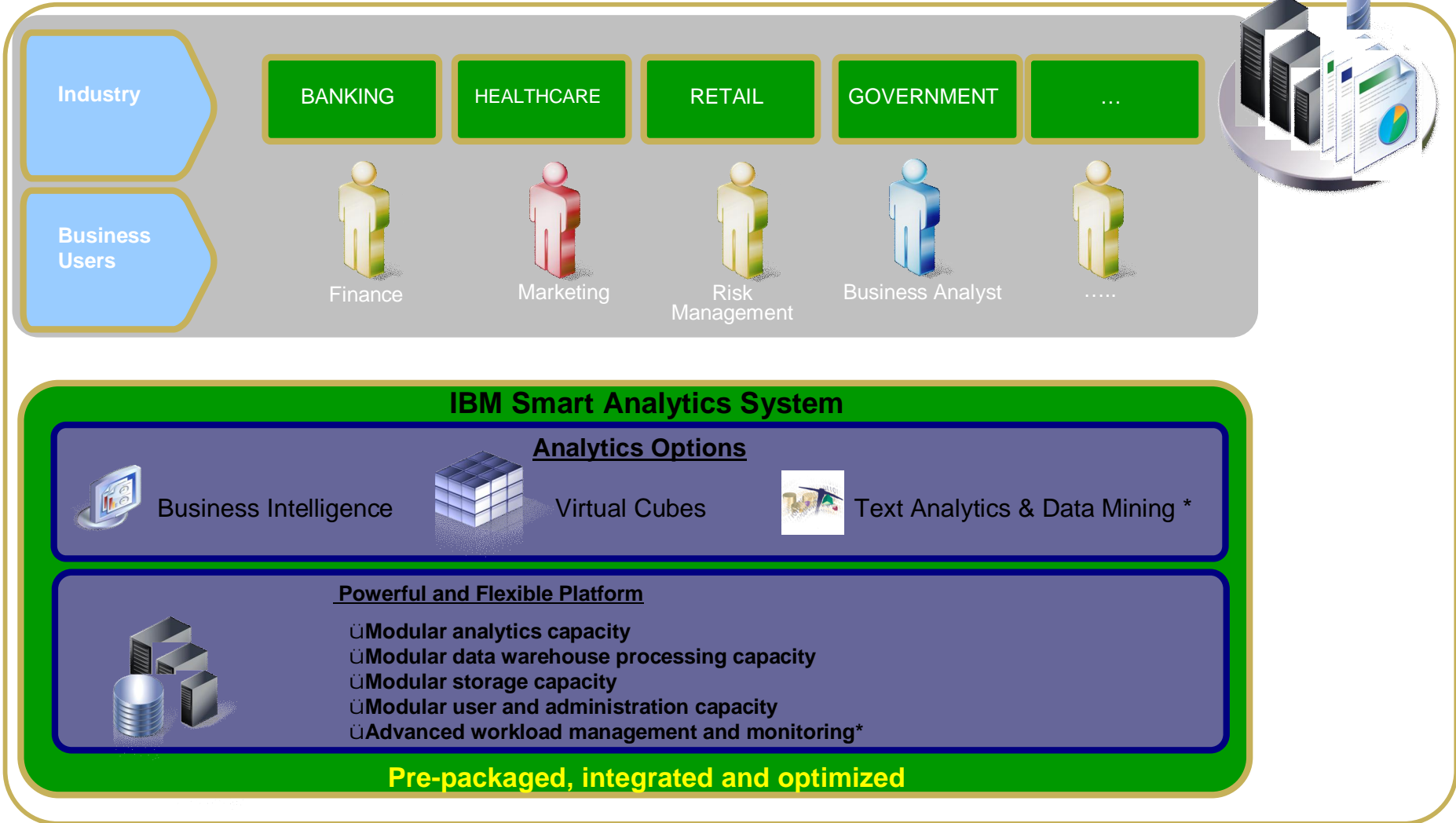


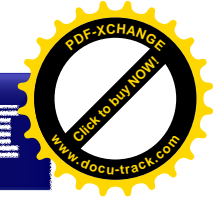
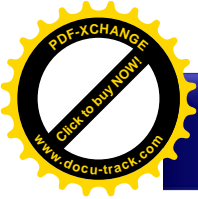
# Mapping physical MPP architecture to RDBMS shared-nothing architecture for maximum scalability and performance





# IBM Smart Analytics System Modern, Modular, Open Architecture





**IBM**

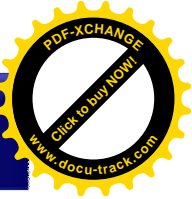
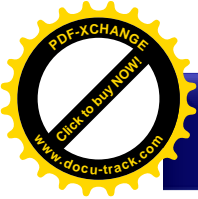
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# Questions ?



# Thank You