



Partner Presentation

**Faster and Smarter Data Warehouses with
Oracle OLAP 11g**

Vlamis Software Solutions, Inc.

- Founded in 1992 in Kansas City, Missouri
- Oracle Partner and reseller since 1995
- Specializes in ORACLE-based:
 - Data Warehousing
 - Business Intelligence
 - Data Transformation (ETL)
 - Web development and portals
- Delivers
 - Design and integrate BI and DW solutions
 - Training and mentoring
- Expert presenter at major Oracle conferences
- www.vlamis.com (blog, papers, newsletters, services)



Dan Vlamis, President, Vlamis Software Solutions

- Developer for IRI (former owners of Oracle OLAP)
- Founded Vlamis Software in 1992
- Wrote portions of Oracle Sales Analyzer
- Beta tester and early adopter of Oracle OLAP
- Expert speaker and author
- Recognized expert in Express and OLAP industry

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Name, company, background, why here?



Thomas H. Davenport

Harvard Business Review

Competing on Analytics

January 2006

“Virtually all organizations we identified as **aggressive analytics competitors** are **clear leaders** in their fields, and they attribute their success to the masterful exploitation of data.”

Are you an analytics competitor?

Can you answer yes to these questions:

- ☐ Compare performance across time periods?
- ☐ Access key performance indicators in near real time
- ☐ Identify top/bottom products, customers, employees, costs, channels?
- ☐ Understand share of category, product mixes, % sales contribution, % profit contribution?
- ☐ Can you benchmark your vendors, sales reps, customers?
- ☐ Do you move seamlessly between strategic analysis to tactical analysis?
- ☐ Does ad-hoc mean mouse-clicks? or phone calls to IT?

What's stopping you from competing with Analytics?

- Is the business:
 - Lacking visibility into business performance?
 - Showing little confidence in the accuracy of reports?
 - Given point in time metrics, but asking for forward looking analysis?
 - Missing opportunities because of lack of ad-hoc reporting?
 - Operating in a constantly changing environment?
 - Using Excel and Access as their "reporting repository"?
- Is the IT organization and infrastructure:
 - Challenged with conflicting priorities?
 - Spending significant resources developing new reports?
 - Struggling to provide timely and accurate information?
 - Producing ad-hoc reports or extracts to business users?
 - Managing to service level agreements?

So, What's the Issue?

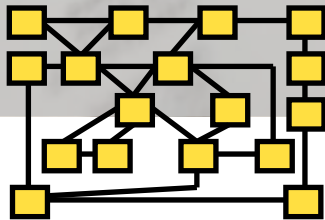
...Most BI Tools Are Designed for Reporting, not Analysis

Reporting

Which customers spend the most?

What did this customer buy?

What is the Q4 revenue forecast?



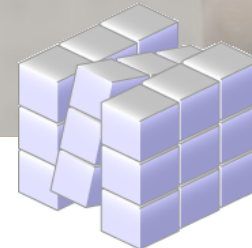
What happened?

Analysis

What are their spending patterns?

What is this customer likely to buy next?

What if demand falls short of forecast?



What if?

To compete on data you need to move from a Data Monologue to Data Dialogue

Move from...

Reporting

High-level static reports

Opening additional reports to answer follow up questions

Combining thousands of detail records to calculate averages, percent of total, period to period changes

Seeing Issues

To...

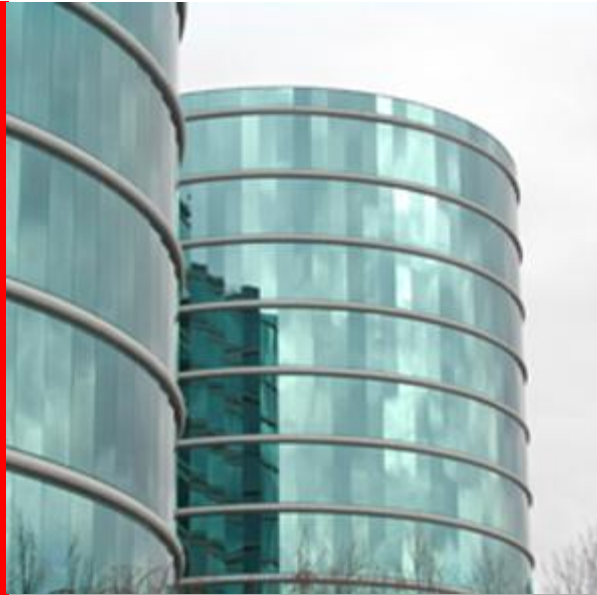
Analysis

Interactive analysis of a complete, multi-leveled, multi-dimensional data set

Intuitively drilling down through a comprehensive data set structured to reflect your business

Instantly retrieving just the information you need (speed of thought analysis)

Seeing the issue, isolating the cause, identifying similar potential issues, get the detail needed to take action



ORACLE®



Providing Competitive Advantage with Oracle OLAP



E.F. Codd

Providing OLAP to Analysts: An IT Mandate

“Relational DBMS products have boundaries with respect to providing function to support user views of data. The ability to consolidate, to view, and to analyze data according to multiple dimensions, in ways that make sense to one or more specific enterprise analysts at any given point in time, has been lacking.”



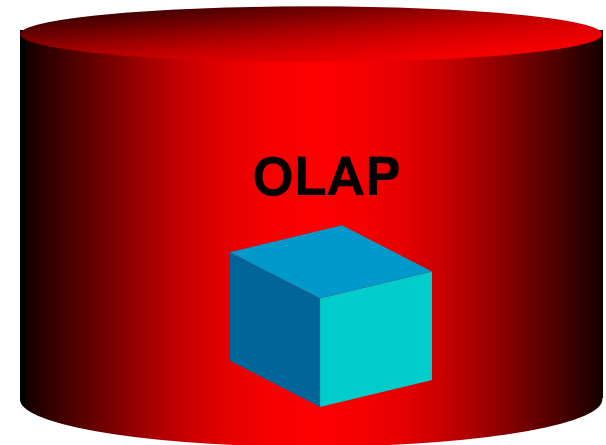
E.F. Codd

Providing OLAP to Analysts: An IT Mandate

“The need which exists is NOT for yet another database technology. Instead, **organizations require robust OLAP data analysis tools which complement the enterprise’s existing data management system** and which are rigorous enough to anticipate and facilitate the types of sophisticated business data analysis inherent in OLAP.”

Oracle OLAP 11g – Relational and OLAP!

- An integrated component of Oracle Database 11g that enables companies to easily gain insights into business performance. It offers:
 - Exceptional query, calculation and data preparation performance
 - Rich analytic capabilities
 - Simple user model that reflects business usage
- Oracle OLAP is the only OLAP engine on the market
 - ✓ This is fully embedded within a database
 - ✓ That is fully accessible via SQL



Therefore it can provide advanced calculation capabilities to any business application

Business Advantages of Oracle 11g OLAP Option

- Enhanced business analysis
 - Complex calculations
 - Compare things e.g. last year to now
 - More sophisticated analytical calculations
 - More interactive analysis of data
 - Advanced data selections using many combined criteria
 - Intuitive, hierarchical navigation
- More timely data
 - It's easier and faster to aggregate dimensional data
- Query performance is both faster and more consistent

Business Advantages of Oracle 11g OLAP Option

Enhanced business analysis

- Example - Multidimensional Calculations & Complex Embedded Queries
 - Uni-dimensional
 - “What are my top ten products?”
 - Multidimensional
 - ‘What was the percent change in market share for a grouping of my top 20% of products for the current three month period versus same period year ago for accounts which grew by more than 20 percent in revenue?’

Business Advantages of Oracle 11g OLAP Option

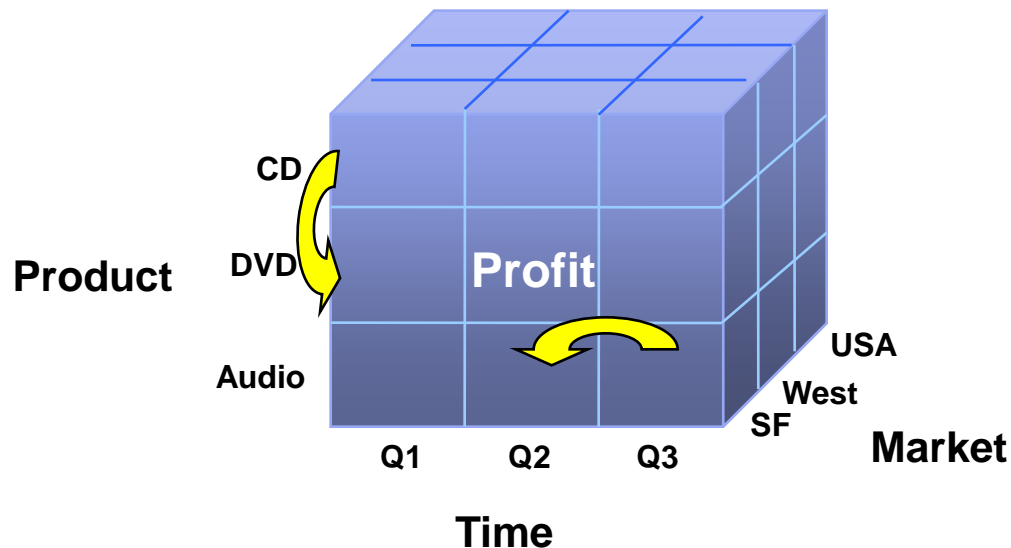
Enhanced business analysis

Solution - Multidimensional Array Storage

Structured around business rules

Compare Profit this Quarter versus Last Quarter

What is a Product's Profit Share of its Category?



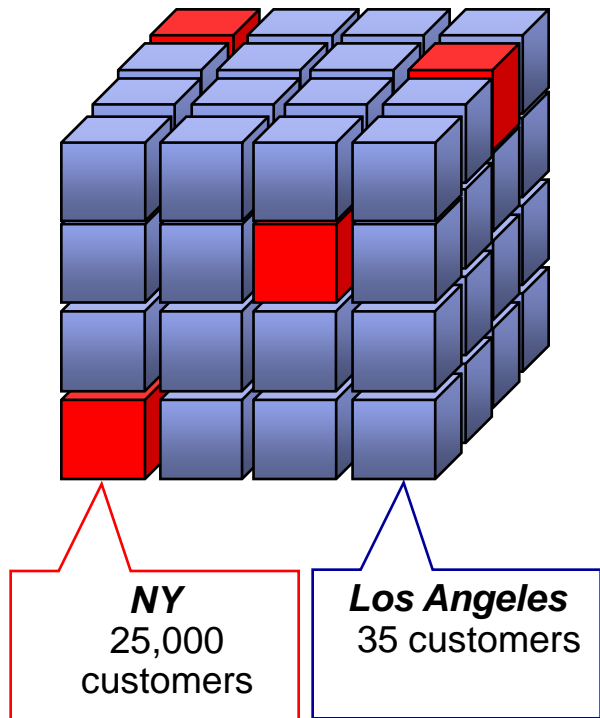
Easy Analytics

Analytic Functions

- Time series Analysis
- Non-additive aggregations
- Financial calculations
- Statistical forecasting
- Models
- Allocations
- Statistical functions
- Regression functions
- Data stored in dense arrays
- Offset addressing – no joins
- More powerful analysis
- Better performance
- Complex Hierarchy Support

Cost Based Aggregation

Pinpoint Summary Management



Precomputed



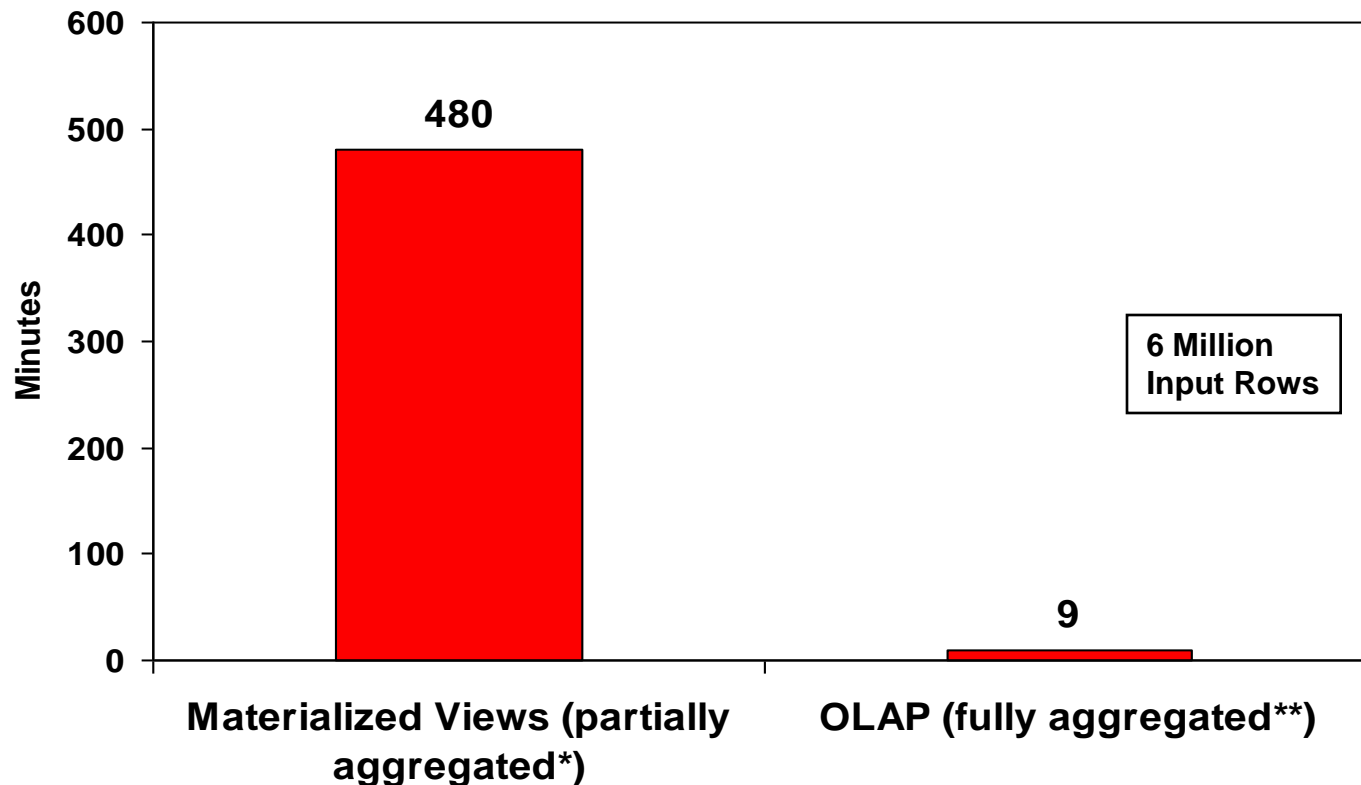
Computed when queried

- Improves aggregation speed and storage consumption by pre-computing **cells** that are most expensive to calculate
- Easy to administer
- Simplifies SQL queries by presenting data as fully calculated

Business Advantages of Oracle 11g OLAP Option

More timely data

- Quick aggregation so users' data is ready when they are



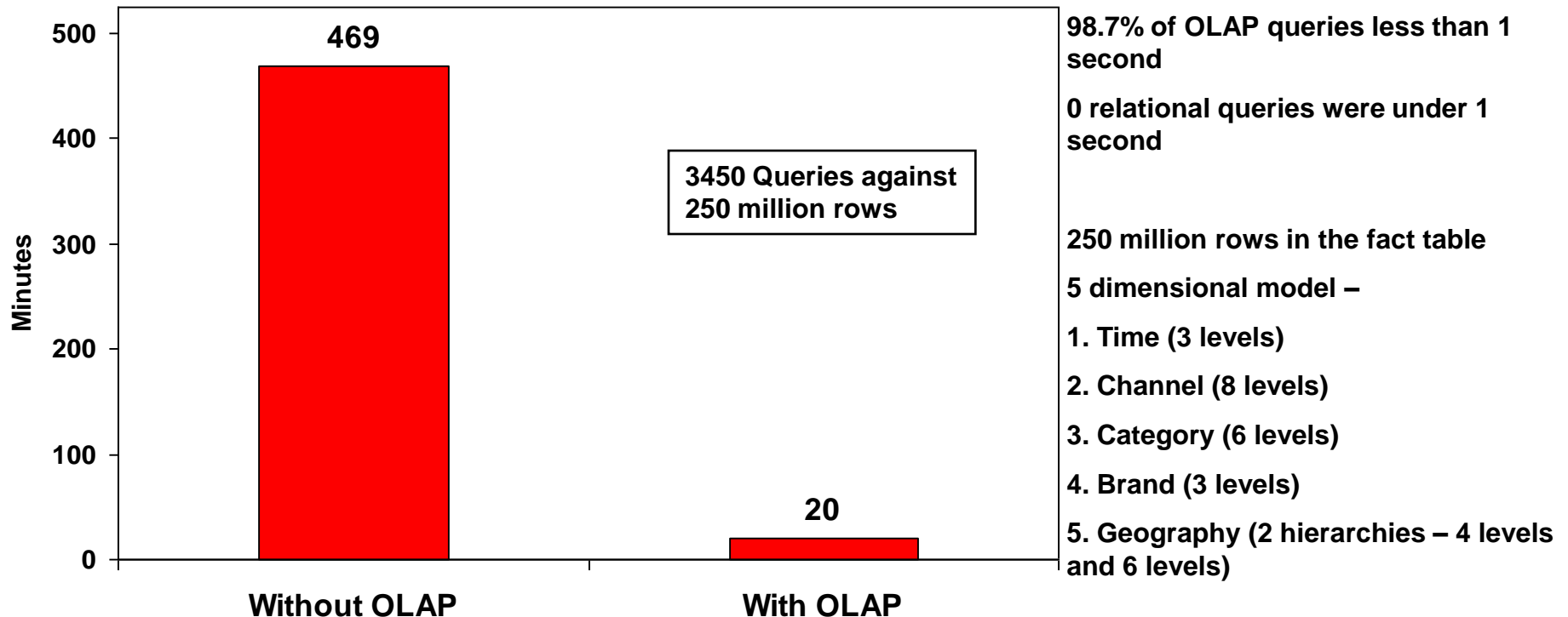
* MV aggregated 1 dimension and 1 measure

** OLAP aggregated 7 dimensions and 11 measures

Business Advantages of Oracle 11g OLAP Option

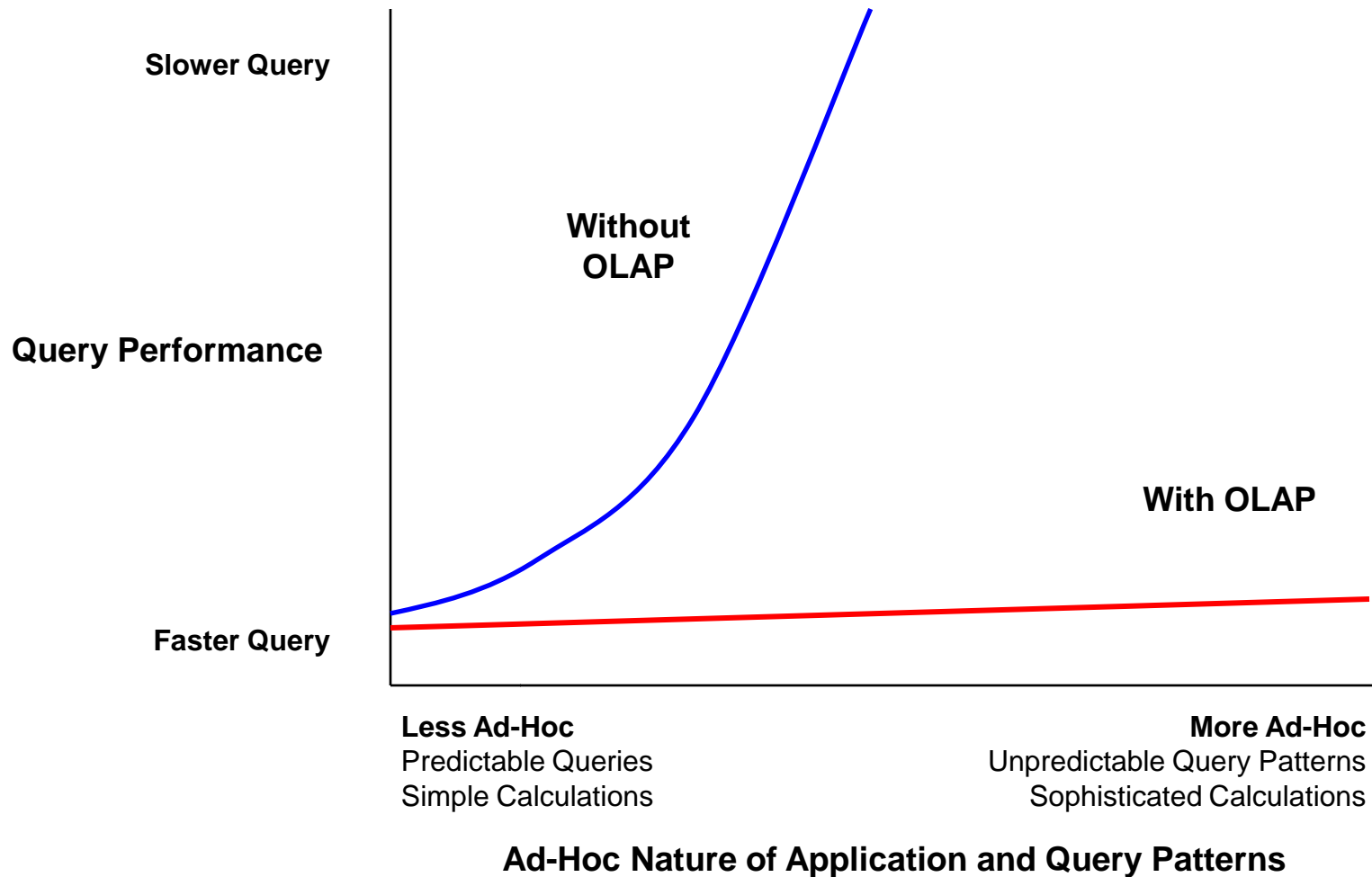
Query performance is both faster and more consistent

Performance Case Study Ad Hoc Queries Across Summary Levels



Business Advantages of Oracle 11g OLAP Option

Query performance is both faster and more consistent



No... REALLY...
Why Oracle OLAP?



Proven Scalability @



- Supports business intelligence applications without replicating large amounts of data in specialized analytical databases
- Rapid response time, for large documents that contain more than 20 thumbnail graphs and 20 cross tabs per page

"We needed a solution that would allow us to achieve 1000 concurrent users across the globe initially; our custom application using SQL to access AW data provides us with a scalable solution which achieves these goals. This OLAP application will become extremely important in our solution offering to many customers."

Ken Ewald
Gallup Organization

Human Behavior Analysis
1,000 Concurrent Users



Stock and Equity Real Time Analysis at BNP PARIBAS

Benefits

- Real time analysis of stock information
- Implemented extremely sophisticated calculations
- Use with existing query tool (spreadsheets)
- Reduced maintenance costs

“The advantages of Oracle 10G’s scalability, reliability, ease of maintenance, performance and an industry standard analytical query language made it the natural choice to replace our existing system”.

Cyrus Kapadia

Large Volumes of Data

- 10 million values loaded every day
- Immediate Analysis and Decision Making
 - Refreshed every 2 seconds
 - Information is never more than 12 seconds out of date
- Sub second response time
 - couple of seconds for very complex reports
- 20 million data requests per day from 4000 users

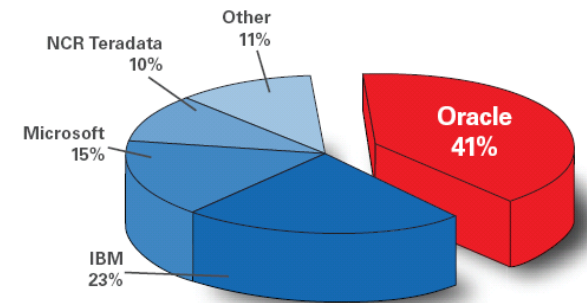
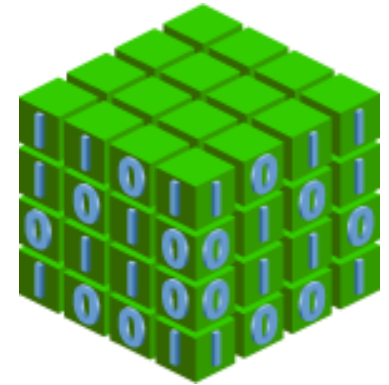


ORACLE®

Replaced_FAME application to provide in depth statistical analysis

Oracle OLAP Features and Benefits

- Core component of Market leading Oracle DB
- Highly scalable OLAP server
- Centralized Business Model view
- Sophisticated Calculation Engine with hundreds of pre-built functions
- Financial Intelligence, Time Series Intelligence, Business metrics
- Consistent, “Speed of Thought” response
- Real time loading capabilities
- Open SQL access or API
- High Concurrency, Partitioning, Clustering, Failover
- Mission Critical Performance and Scalability
- Unmatched data security



Worldwide Data Warehouse Management
Market Share, 2006

Fast Query

Fast Update

Rich Calculations

Dimensional Model



ORACLE IS THE INFORMATION COMPANY