

# Break Free Forum 2012

## Barrett Boston

Vice President PureSystems Sales  
IBM



**Disclaimer:** Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

## Break Free Forum Agenda

1:30pm

Welcome

1:35pm

Smarter choices for improved IT economics

- Steve Mills - Senior Vice President and Group Executive, IBM Software and Systems
- Robert LeBlanc – Senior Vice President, Middleware Software, IBM Software Group

3:05pm

Break

3:20pm

Client and Partner Panel

- Inhi Cho Suh – Vice President Product Management and Strategy, IBM Information Management

4:20pm

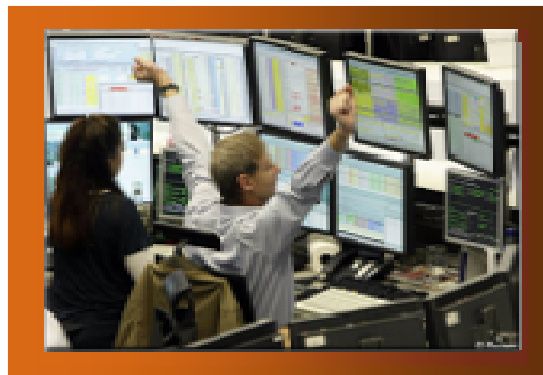
Closing remarks

## What You Are Going to Learn Today

Get the facts and learn how to improve your IT economics



Understand how organizations have succeeded



Map out the steps to build a business case & take action



# Smarter Choices for Improved IT Economics

## Steve Mills

Senior Vice President and Group Executive  
IBM Software and Systems

## Robert LeBlanc

Senior Vice President, Middleware Software  
IBM Software Group



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## Clients Seek a Valued Partnership That Will Make Them Successful

### ■ Value to the Client

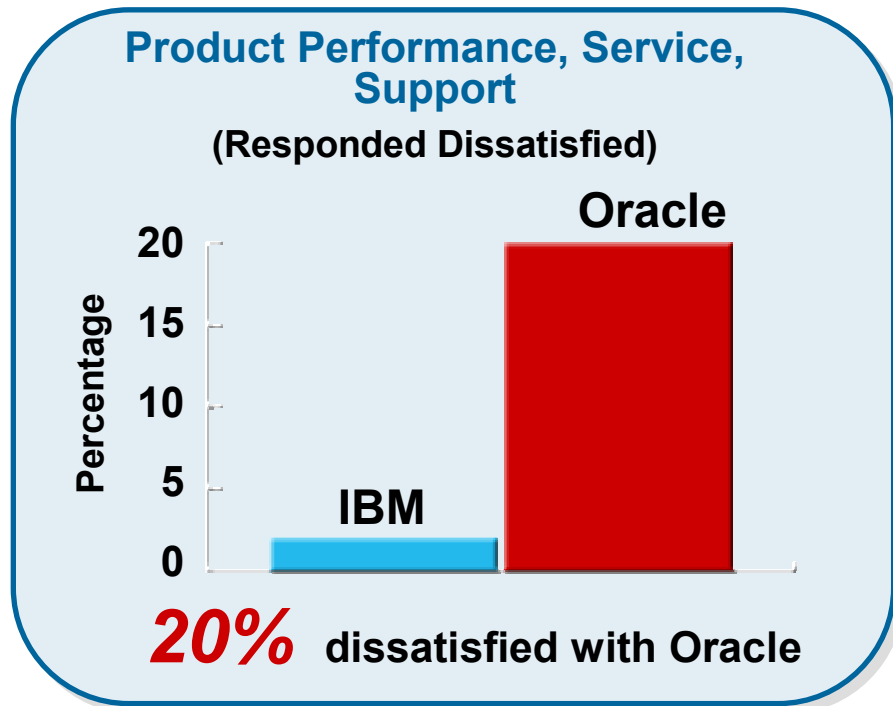
- Choices and predictable costs
- Value for the investment

### ■ IBM Values Drive All Our Decisions

- Dedication to every client's success
- Innovation that matters, for our company and for the world
- Trust and personal responsibility in all relationships



## Oracle's Practices are Not Getting Good Reviews from Clients



### **Complex and Non-Transparent Oracle Licensing Costing Firms Millions\***

*"We are seeing an increasing number of global customers failing to remain compliant with Oracle's licensing schemes amid growing virtualization and this is largely because of Oracle's non-transparent and complicated licensing policy," said Judica Krikke, solicitor at European law firm Stibbe, at the VMworld Europe 2012 event in Barcelona.*

\* October 12, 2012 ComputerWeekly.com Report  
<http://www.computerweekly.com/news/2240164731/Complex-and-non-transparent-Oracle-licensing-costing-firms-millions>

Source; ITIC Reliability Survey, February 2011  
<http://itic-corp.com/blog/2011/02/itic-reliability-survey-oracle-users-anxiousangry-over-service-support-slippage/>

## Let's see why...

## Oracle Practices Limit Customer Value



### ■ Limited Choice

- Pushes Oracle only solution stack from hardware to application
- “Exa” strategy bundles everything into fixed sizes
- Expensive packaged suites of software are usually the only choice
- “All” or “Nothing” hardware and systems support
- Inflexible and expensive software partitioning
- No “Capacity on Demand” concept for “Exa” solutions

# Oracle Has Gradually Built an “Oracle Only” Stack **Today** (Pushing Strategically)

**5 Years Ago**

<b>Applications</b>	Oracle E-Business Suite PeopleSoft, Siebel, JD Edwards	Oracle Fusion Applications
<b>Middleware</b>	Mixture of Open Source and Oracle	Oracle Fusion (includes BEA)
<b>Database</b>	Oracle DB	Oracle DB
<b>Operating System</b>	Solaris, Open Solaris Red Hat and Suse Linux	Oracle Enterprise Linux Oracle Solaris
<b>Virtual Machine</b>	Third Party	Oracle VM (Sun’s LDOM)
<b>Cloud Strategy</b>	None	Exalogic and “Oracle Public Cloud”
<b>Servers</b>	AMD, Intel, UltraSPARC, SPARC64, HP, Itanium, Power	Exalogic, Exadata
<b>Storage</b>	Many third party solutions	Sun Disk, Sun Tape

= Choices

= Oracle Only



## Oracle's Recent\* Cloud Strategy Continues "Oracle Only" Focus

- **Limited to only Oracle technologies**
  - IBM SmartCloud provides support for open standards and non-IBM technologies
- **Both Public and Private cloud are the same Oracle stack**
- **Based on "Exa"**
- **Scalability is very limited**
  - Only able to run members of the WebLogic cluster within the boundary of a single Exalogic rack
- **Monthly pricing model versus IBM usage pricing model**
  - Monthly pricing is considered to be very expensive

## Oracle Is Strategically Pushing Fixed Appliance Configurations Which Can Further Limit Client Choices




- Exadata, Exalogic, Exalytics, SPARC SuperCluster, Oracle Database Machine
  - **Oracle-only Hardware running Oracle-only Middleware**
  - Available only in fixed sizes (1/8, 1/4, 1/2, and full racks)
- Client Must Decide in Fixed Pre-configured Increments
  1. Buying more capacity than needed and thus spending more
  2. **Being locked into an architecture than runs Oracle only**
  3. History of many disruptive chassis changes which Oracle calls an “upgrade”

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### ■ IBM Offers a Broader Spectrum of Choices

1. Individual hardware and software solutions that are optimized by design
2. Integrated workload optimized systems
3. Appliances

## IBM Offers More Hardware for your Money



	PureFlex (Intel) 	PureFlex (Power) 	Exalogic X3-2 (HW Only) 
Cost	\$1,547,952	\$1,940,219	*\$1,784,500
<b>Cost / Core</b>	<b>\$2,360</b>	<b>\$2,958</b>	<b>*\$3,718</b>
Processor	Sandy-Bridge	IBM Power7	Sandy-Bridge
No. of Cores	656	656	480
RAM Memory	10.25 TB **30.75 TB	10.25 TB	7.7 TB
Useable Storage	48 TB	48 TB	***30 TB

\* Excludes cost of Oracle Exalogic Elastic Cloud (\$7,968,000) not sold without it

\*\* Maximum RAM using 32 GB DIMMs

\*\*\* Useable capacity after pre-configured RAID and mirroring.

## Software Costs Significantly Impact Cost of Ownership\*

	<b>IBM PureApplication (small)</b> <b>\$38,250 / core</b> 	<b>Oracle Exalogic X3-2 (1/4 Rack)</b> <b>\$72,785 / core</b> 
Database	DB2	Oracle suggests separate Exadata for database
Application Server	WebSphere Application Server	WebLogic Suite <b>(\$37,350)</b>
Systems Management	IBM PureApplication Management	OEM 12c: WebLogic Suite and Cloud Management Package <b>(\$12,450)</b>
Operating System	Linux	Linux
Virtual Machine	VMware	OVM <b>(\$225)</b>
Hardware	Intel (Sandy-Bridge)	Intel (Sandy-Bridge) & Exalogic Elastic Cloud <b>(\$6,160 + \$16,600)</b>

\*All prices are list USD prices as of October 1, 2012, includes 3 years maintenance and support

## Oracle Suites are the Only Choice for Most Implementations\*

### **WebLogic Suite** - \$45,000 per processor

- Oracle WebLogic Server Enterprise Edition
- Oracle Application Server Enterprise Edition
- **Oracle WebLogic Real Time, Oracle Virtual Assembly Builder**
- Oracle Coherence Enterprise Edition, Oracle Web Tier
- **Oracle Enterprise Manager: Diagnostics Pack for Oracle Middleware**
- Oracle Enterprise Manager: Diagnostics Pack for Oracle Coherence

*Products in **RED**  
can only be licensed  
as part of an Oracle  
Suite*

### **SOA Suite** - \$57,500 per processor (requires WebLogic Suite)

- **Oracle JDeveloper, Oracle Business Rules**
- Oracle BPEL Process Manager
- **Oracle Business-to-Business Integration, Oracle Business Activity Monitoring**
- Oracle Service Bus
- **Oracle Complex Event Processing, Oracle Web Services Manager**

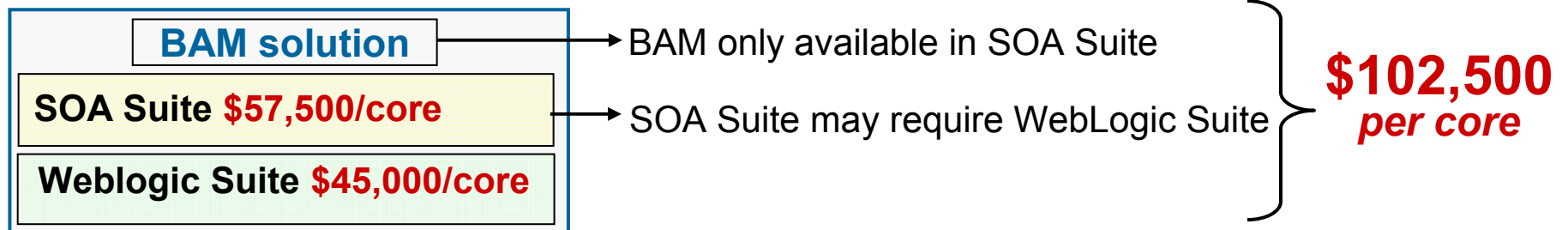
### **BPM Suite** - \$57,500 per processor (requires SOA Suite)

- **Oracle BPM**
- Oracle WebCenter Suite
- **Oracle Universal Content Management**

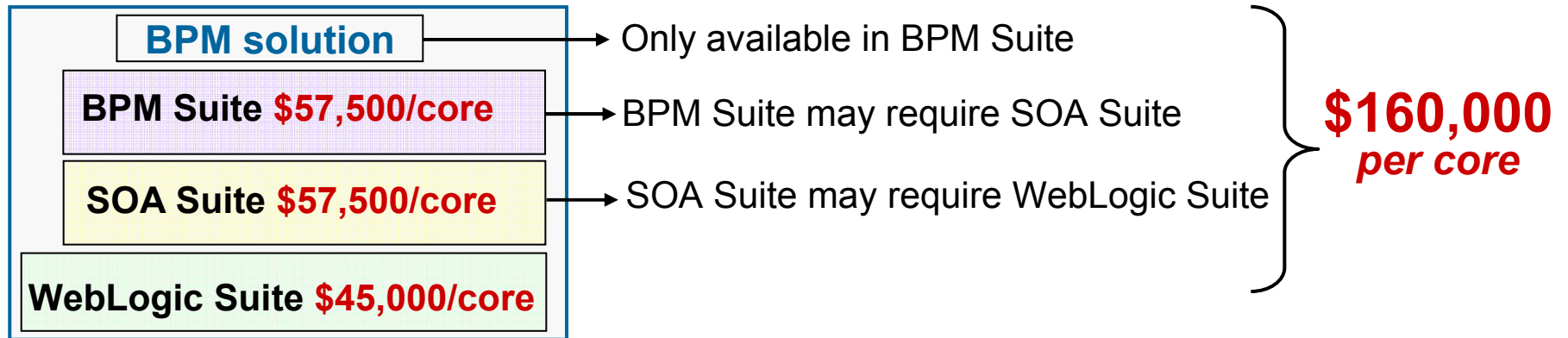
\* There are a few scenarios with Oracle Fusion software where a Suite is not required  
<http://www.oracle.com/us/corporate/pricing/technology-price-list-070617.pdf>

## Oracle Suites May Charge for More Than You Need

**Example 1:** Customer wants to deploy Oracle Business Activity Monitoring (BAM)



**Example 2:** Customer wants to deploy a BPM solution



## Do the Arithmetic

### WebSphere on IBM PureFlex

- WAS SE (Power): **\$ 5,075 / core**
  - Single node implementations
- WAS ND (Power): \$ 19,000 / core
  - Clustered configurations, high availability

No Suites required

No special “optimization” software

### WebLogic Suite on Exalogic

- Bundled software suite is required (\$22,500 / core)
- “Optimization” software license is also required (\$10,000 / core)
- Total: **\$ 32,500 / core**

**6X more for simple web applications**

Note: The cost per core already factors the Oracle 0.5 core factor

## Oracle Limits Hardware and Systems Support

### **Oracle “All or Nothing” Hardware Support Strategy**

- In 2010, Oracle reduced Sun hardware support from 3 levels to 1
- **Only Oracle** hardware / systems are supported
- Oracle requires that all Hardware be covered at this same level
  - **“All or Nothing”**



### ■ **IBM Offers Clients Choices**

- At least three levels of hardware and systems support
- Customized levels of support
- Any number of IBM servers can be supported
- Non-IBM hardware and systems supported

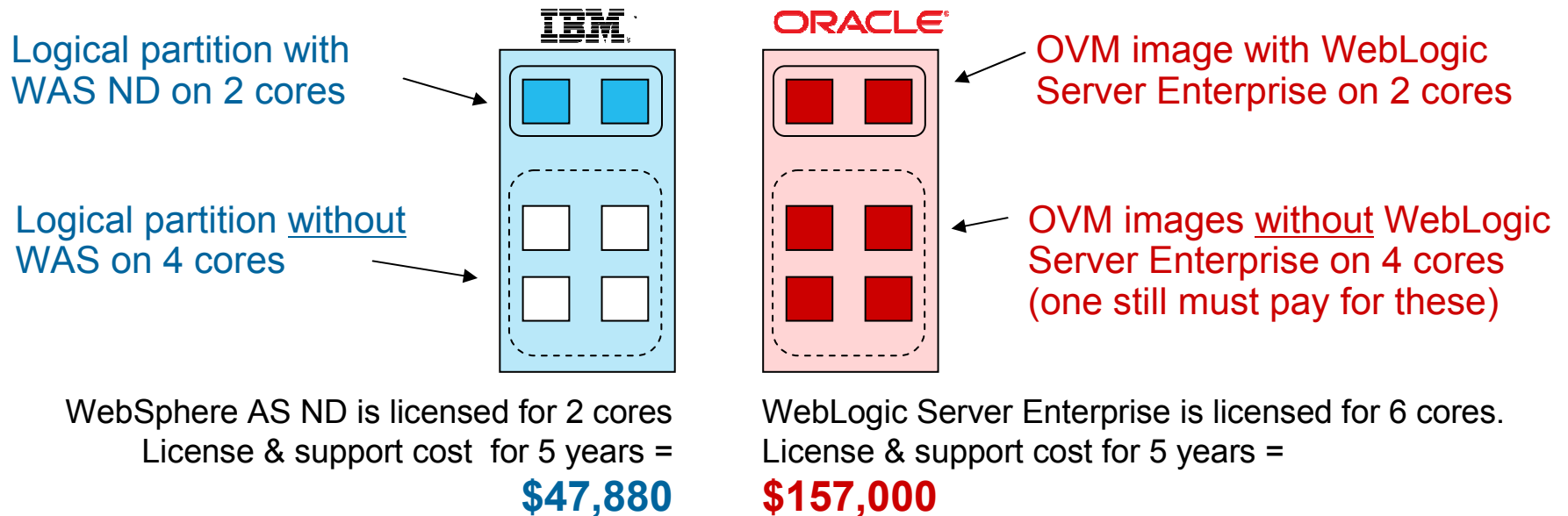
Example of System Support:  
Operating System such as  
AIX, Solaris, Linux



# Oracle Software Licensing Does Not Permit Soft Partitioning

*You pay Oracle for all CPUs on a socket vs. CPUs that are assigned to the logical VM*

“For approved Oracle Engineered Systems .... licenses must be procured in full socket equivalents ... if there are six cores per socket, the customer **must add licenses in increments of six cores.**” \*



\* <http://www.oracle.com/us/corporate/pricing/partitioning-070609.pdf>

## IBM Capacity On Demand



On-premise extra capacity for IBM Servers  
Don't pay until you need it

I need to *temporarily* increase processors and memory

I need to *permanently* increase processors and memory

I want to *try it for free* to see if it helps me

**IBM Answer:**  
*No problem*



**Oracle Answer:**  
*You need more capacity?  
....buy more Oracle racks*

## Let's Summarize Choice and Client Value

<b>IBM</b>	<b>Oracle</b>
Open Stack with Choices	Pushes Oracle only solution stack
Product and packaging Choices "Fit In" to Existing Environment	"Exa" strategy - Closed hardware and software solutions
Buy only required software, not suites	Expensive packaged suites of software
Flexible hardware support	One choice of support – "All or Nothing" from Oracle
Supports software soft partitioning	Inflexible and expensive soft partitioning
Capacity on Demand	Buy more Oracle Exa racks

## Banco de Credito del Peru



### Banco de Credito del Peru cuts data management costs in half with DB2 versus Oracle

#### Need

- Reliable and accurate reporting of its business information
- A high performing, reliable, lower cost platform due to escalating Oracle maintenance costs

#### Benefits

- *Up to 50% savings in data management costs*
- *45-50% savings in storage costs*
- *30% improvement in transaction processing efficiency*

## PLANSEE SE (Austria)



## PLANSEE replaces Oracle, boosts efficiency and compresses costs on IBM DB2

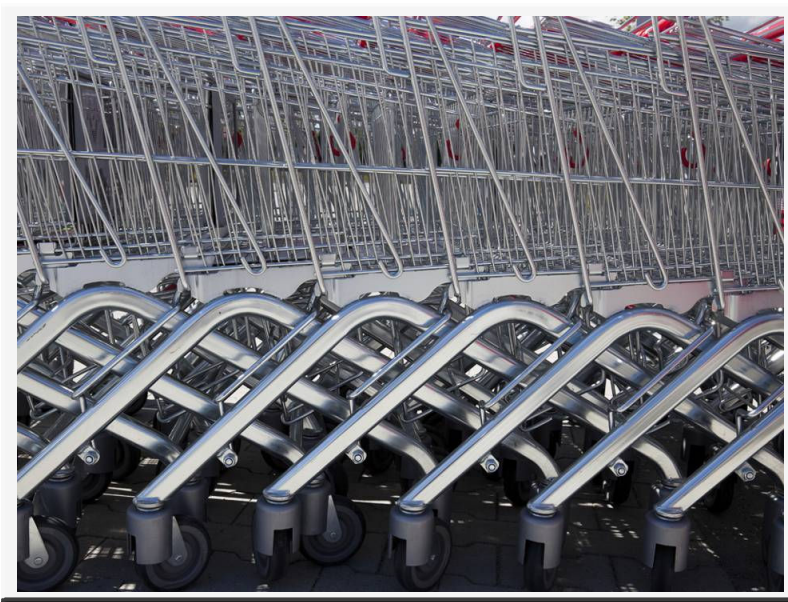
### Need

- Upgrade its hardware platform to ensure excellent SAP performance
- Find a cost-efficient alternative for its existing Oracle database which required expensive storage capacity additions

### Benefits

- Replaced Oracle database with IBM DB2:
  - *Cut database size and backup times by 50%*
  - *Increased storage savings by 30%*
  - *One year DB2 migration ROI and overall solution ROI in three years*

## The William Carter Company



**carter's®**

## Carter's, Inc. supports growth with next generation BI and analytics powered by Netezza

### Need

- Store SKU and transaction-level data for a minimum of 2 years
- Provide a single view of merchandising for planning, allocations, and BI
- Data warehouse platform to integrate data for multiple brands and channels

### Benefits

- Short time to value – *re-platformed from Oracle to Netezza in less than 6 weeks*
- Ability to meet SLAs, react faster to selling trends; nightly load of 72 weeks of sales history reduced: *12 hours to 45 minutes*

## NYSE Euronext



## NYSE Euronext improves data management with Netezza data warehousing

### Need

- Greater flexibility to meet market demands
- Reduce the time taken to access business-critical data on its network, which was taking 26 hours
- The previous Oracle system trawled through large amounts of irrelevant information to complete searches

### Benefits

- *Short time to value – up and running within weeks*
- Ability to conduct rapid searches of 650 TB of data; *storing over 1 PB on Netezza*
- Time to access business-critical data *reduced from 26 hours to 2 minutes*

## Client Value is Our Primary Objective

### ■ Choice

- Open Stack with choices
- “Fit In” to existing environment
- Choose level of customer support
- Packaging choices
- Predictable Costs

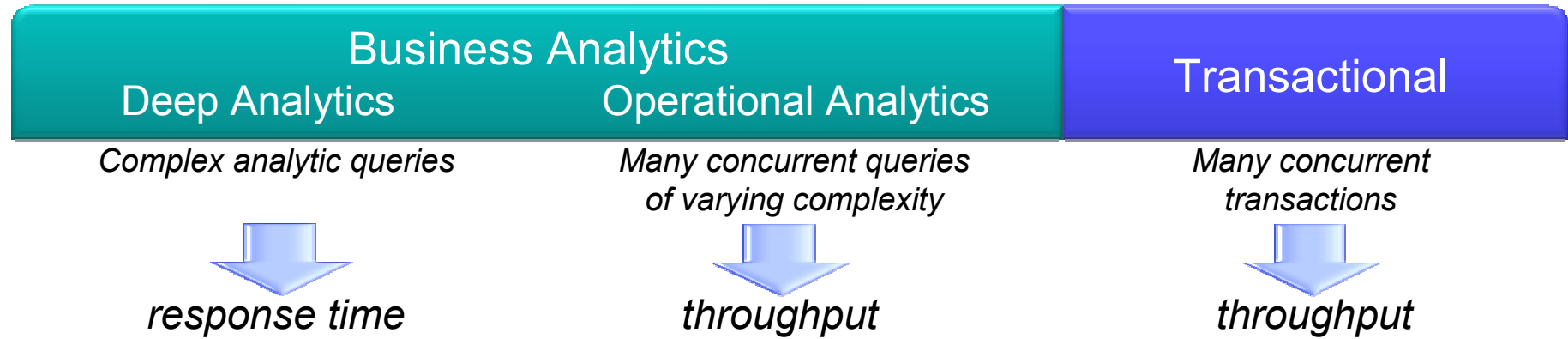
### ■ Value for the Investment

- Workload Optimized Systems deliver business value at the lowest cost





## Different Data Workloads Have Different Requirements



### Optimized Systems from IBM



**Oracle's suggested approach:  
One-Size-Does-Not-Best-Fit-All Database Machine**

# PureData



**Data Platform**

*Delivering Data Services*

## **for Transactions**

*Optimized system delivering data services for transactions*

## **for Analytics**

*Optimized system delivering data services for analytics*

## **for Operational Analytics**

*Optimized system delivering data services for operational analytics*

# PureSystems

## For Deep Analytics, IBM is the Clear Choice

### PureData



- Deliver **insights in minutes** not hours
- No indexing, No tuning , No storage administration
- Richest set of in-database analytics
- **4 out of 5 clients** who try Netezza, **buy Netezza**



## XO Communications improved retention rates and revenue

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- Evaluates 500+ variables that predict voluntary customer defection within 90 days
  - Proactive save campaign executed on the top 10 percent
- Reduced churn rate by 35% in the first year
- ROI in less than 3 months
- Queries ran 200X faster

[YouTube Testimonial: XO Communications](#). All client examples cited or described are presented as illustrations of the manner in which some clients have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions. Contact IBM to see what we can do for you.

## For Operational Analytics, IBM is the Clear Choice

### PureData



- **Up to 1000s** of concurrent operational queries
- **Continuous ingest** of operational data
- **Up to 10x** storage space savings
- **Policy-based** workload management
- **Simplified and integrated** system management



## GS Retail lowers TCO by 30% with faster, smarter analytics

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- Hundreds of concurrent operational queries and batch processing for Market Basket Analysis
- 60 percent data reduction due to data compression
- 30 percent reduction in TCO for data warehouse
- Availability of sophisticated analytical functions such as cross-data analytics

[IBM Client Case Study: GS Retail Co. Ltd.](#) All client examples cited or described are presented as illustrations of the manner in which some clients have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions. Contact IBM to see what we can do for you.

## For Transactions, IBM is the Clear Choice

### PureData



- Handles **100+ databases on 1 system**
- **Up to 30x** database scalability
- **Up to 10x** storage space savings
- Database node recovery **in seconds**
- Supports DB2 applications unchanged and Oracle database applications with **minimal change**

# PureData System for Transactions Key Capabilities

## Full Rack Capabilities (Large)

384 processor cores	More cores to optimize transactional performance
6.2 TB memory (DRAM)	Allows more queries to execute entirely in-memory
19.2 TB flash (SSD)	Allows placement of most important objects on fastest storage
128 TB disk (HDD)	High performance storage for today's growing data demands
1,500,000 IOPS	Provides sustained high performance transactional throughput
Advanced Storage Tiering	Automatically migrates most important data to the fastest storage
Adaptive Compression up to 10x	Allows you to store more data in less space and reduce I/O transfers
High Speed Interconnect	RDMA (Remote Direct Memory Access) for low latency, near-linear scalability
Dual 10 GB network	High speed redundant database connectivity speeds app performance

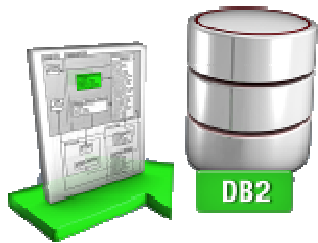


# Exadata is no match for PureData for Transactions

	Exadata X3-2 Full Rack		PureData Large	
	296 2 TB	<b>Cores Memory</b>	384 6.2 TB	<b>Greater OLTP throughput capacity</b>
<b>Excessive storage software costs</b>	Flash memory is only used as extended cache. Storage software specialized for analytics.	<b>Storage management</b>	Advanced Storage Tiering (EasyTier)	
<b>Not optimized for OLTP</b>	Exadata Hybrid Columnar Compression designed for read-only workloads	<b>Data Compression</b>	DB2 Adaptive Compression	<b>Optimized for OLTP</b>
<b>Inefficient</b>	Inter-node communication bottleneck for non-partitioned databases	<b>Internal Connectivity</b>	Shared locks and buffers with high speed RDMA	<b>Efficient</b>

***“There is no value add for Oracle Database on Exadata in the OLTP/ERP use case. Full stop. OLTP/ERP does not offload processing to storage” -- Kevin Clossen, an ex-Exadata evangelist***

## For Database Workloads, IBM is the Clear Choice



- Consolidate workloads including for Oracle Database apps: DB2 runs on average **98% of Oracle PL/SQL code unchanged**<sup>2</sup>
- DB2 on Power can deliver up to **3X performance per core** than Oracle Database on SPARC, per results on two different benchmarks<sup>3</sup>



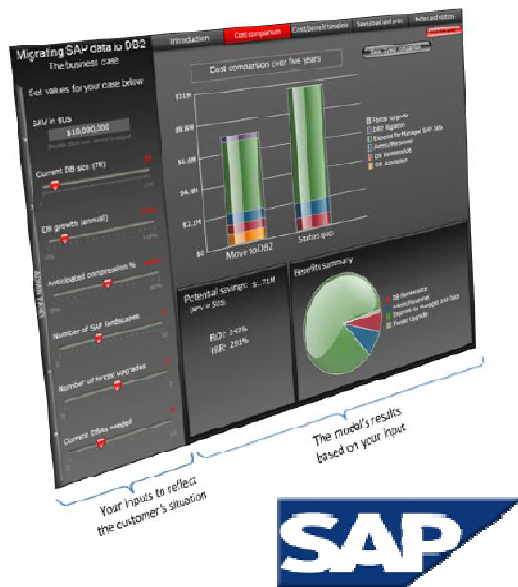
**RELIANCE**  
Anil Dhirubhai Ambani Group

**50% decrease** in total cost of ownership

Reduced data processing times  
from **40 hours to 30 minutes**

<sup>1</sup>**Savings:** IBM Client Case Study: Subex. All client examples cited or described are presented as illustrations of the manner in which some clients have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions. <sup>2</sup>**COMPATIBILITY:** Based on internal tests and reported client experience from June 30, 2010 through July 20, 2011. <sup>3</sup>**PERFORMANCE:** Results on TPC-C: www.tpc.org (http://www.tpc.org) as of 4/3/2012 (IBM Power 780 (3 x 64 C)(24 Ch/192 C/768 Th); 10,366,254 tpmC; \$1.38/tpmC; avail 10/13/10 v. Oracle SPARC SuperCluster w/T3-4 Servers (27 x 64 C)(108 Ch/1728 C/13824 Th); 30,249,688 tpmC; \$1.01/tpmC; avail 6/1/11). TPC-C is a trademark of Transaction Performance Processing Council. Results on two-tier SAP Sales and Distribution (SD) standard application benchmark, as of April 3, 2012: IBM Power 795 (32 processors, 256 cores, 1,024 threads) achieved 126,063 SAP SD benchmark users running the SAP enhancement package 4 for the SAP ERP application 6.0, AIX 7.1 and DB2 9.7; certification number 2010046 v. Oracle SPARC Enterprise Server M9000 (64 processors, 256 cores, 512 threads), which achieved 39,100 SAP SD benchmark users running SAP ERP 6.0, Solaris 10, Oracle 10g; certification number 2008042. SAP and all SAP logos are trademarks or registered trademarks of SAP AG in Germany and several other countries.

## For SAP Workloads, IBM is the Clear Choice



- Clients have reported as much as **25%-50% reduction** in applicable **infrastructure costs**
- **SAP switched** their internal application production environment to DB2 and their database **performance improved by 40%**<sup>1</sup>
- **No charge** high availability and disaster recovery included in the DB2 installation
- Clients have reported **reductions** in SAP data storage volumes in the range of **40%-60%**<sup>2</sup>

<sup>1</sup> [SAP IT selects IBM DB2 as strategic database platform for internal business systems.](#)

<sup>2</sup> Based on actual customer studies. All client examples cited or described are presented as illustrations of the manner in which some clients have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions. Contact IBM to see what we can do for you.



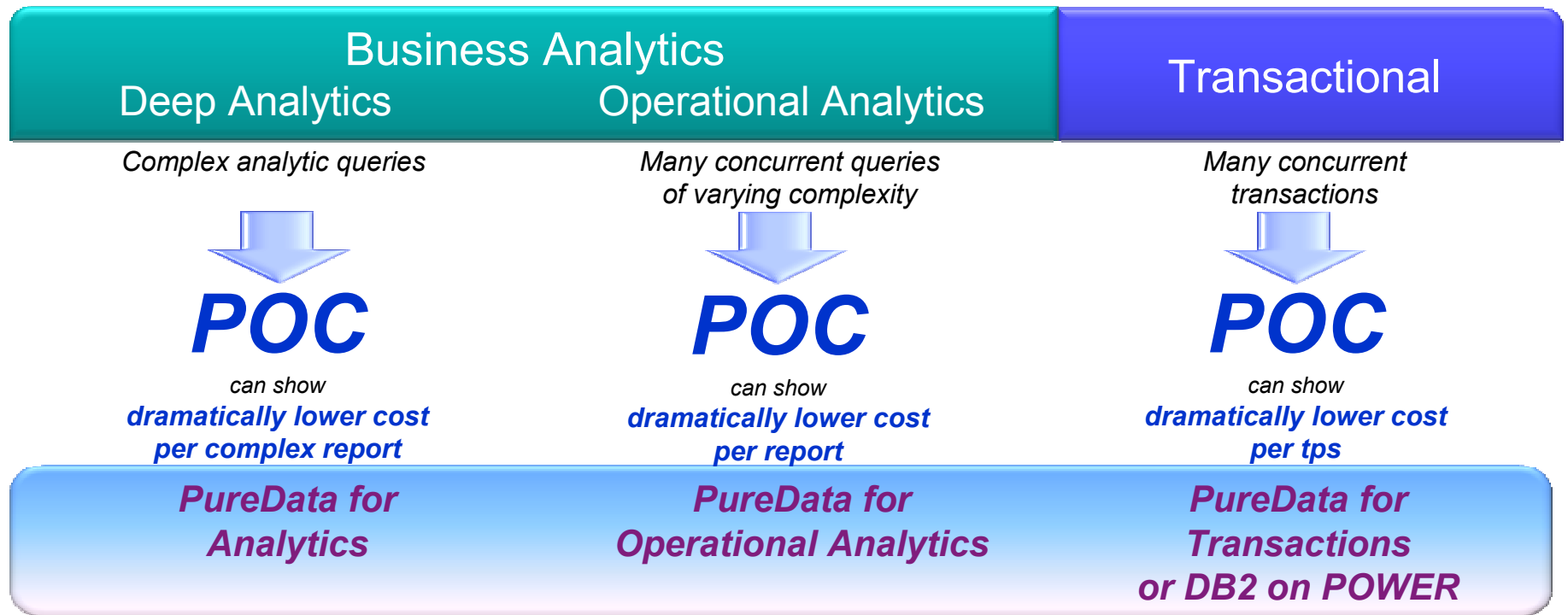
## Colgate-Palmolive handles SAP data growth with IBM DB2

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- Managed the explosion in data associated with business growth while keeping IT spending lean
- Reduced database volumes by 65%
- Kept IT costs stable for two years without purchasing additional storage or systems
- Now focuses critical resources on business innovation rather than managing infrastructure

[IBM Client Case Study: Colgate-Palmolive](#). All client examples cited or described are presented as illustrations of the manner in which some clients have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions. Contact IBM to see what we can do for you.

# Can IBM Deliver Better IT Economics for Your Data? Compare for Yourself



Based on US list prices. Actual performance and costs will vary based on actual configuration, specific queries, applications, and other variables in a production environment.

## Now ... Let's Summarize IBM's Value

- Investment protection
- Openness
- Choice of workload optimized systems
- Improved IT economics



# Client and Partner Panel

## Inhi Cho Suh

Vice President Product Management and Strategy  
IBM Information Management



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## Client and Partner Panel



**Robert  
Jimenez**



**Kevin  
Nelson**



**Tom  
DeJuneas**



**Frank  
Fillmore**



# Closing Remarks

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Vice President PureSystems Sales  
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## IBM has a Long History of Protecting Client Investments

- Client choice
- Value from investment
- Compatibility and interoperability
- Greater agility
- Predictable and lower costs



# Stop, Think and Save up to 50% on Applicable IT Costs By Moving To IBM Software And Systems\*

**1** Live demo at an IBM Innovation center

**2** Complimentary Savings Assessment & Migration Plan

**3**

Tailored bottom-line IBM offer includes:

- Migration services
- Training and education
- IBM Systems and maintenance
- IBM Software licenses, subscription & support

**\$0  
upfront**

Available IBM financing may eliminate your cash outlay during the transition

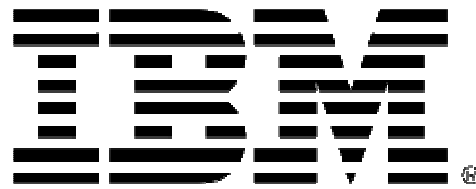


PureSystems



\*IT cost savings reflect potential overall reductions in software and/or hardware maintenance charges and reduced costs of system and workload management that may be achieved over a period of 3-5 years, when consolidating workloads from other systems to IBM. Software migration is from Oracle database and/or application server to comparable IBM DB2 and IBM Web-Sphere products. Actual cost savings and performance characteristics will vary depending on individual client configurations. Complimentary services, training and education will vary by customer and may not be available in every country. Financing terms and availability vary by country. Contact IBM to see what we can do for you.

# Thank You!



***[ibm.com/stopthinkandsave](http://ibm.com/stopthinkandsave)***

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