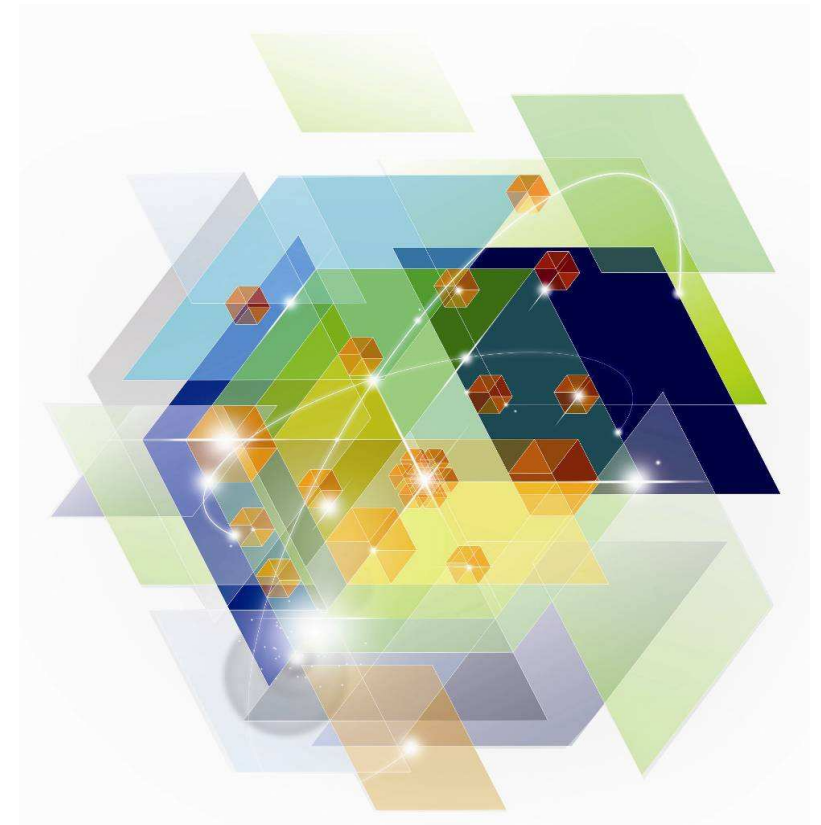# Attack Oracle Exadata With Workload Optimization On zEnterprise

Competitive Project Office

Agenda

- **Oracle's Exadata attack**

    - WW view

    - How to successfully counterattack

        1. Awareness
        2. Analysis
        3. Action Plan

Wake Up –
YOUR Account Is Under Attack By Oracle

- **Over 25% of 151 key accounts have installed Exadata**

- **Over 50% of the accounts are potentially under threat**

- **Of 13 key accounts in Italy**

  – 11 have already installed Exadata

  – 3 were at no cost to the customer

  – 1 is now an Oracle reference
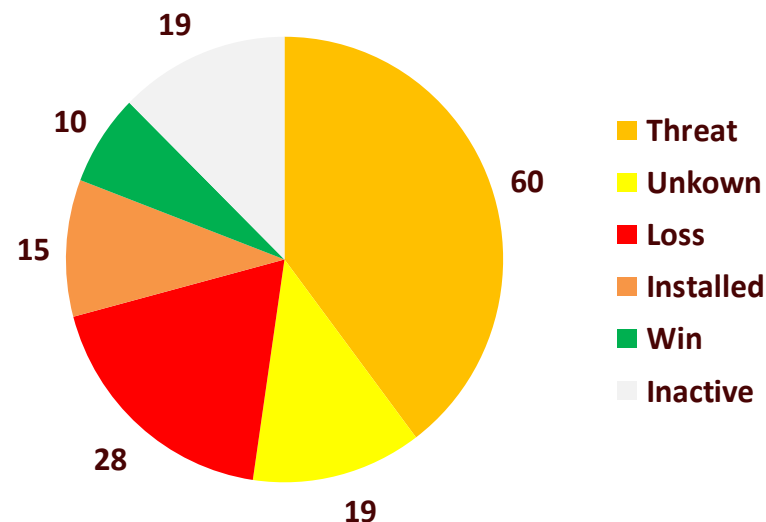
- **Attack is much broader than this at WW level**

Value	Legend
60	Threat
19	Unkown
28	Loss
15	Installed
10	Win
19	Inactive

Italy Example - Key Accounts Being Targeted By Oracle

- **Top Accounts**
  - Unicredit, S. Paolo Intesa, UBI, INAIL, Consip, Telecom, Sia-Ssb

- **Oracle Reference**
  - Leveraged ULA to sell Business Analytics that resulted in a win for Exadata

"**Unicoop Firenze Upgrades Hardware, Accelerating Distribution Chain Data Processing to Enhance Executive Decision-Making**"

Successfully Countering Oracle's Attack Requires Three Things

- **Awareness**

  – Know what Oracle is saying, what they are doing and why

- **Analysis**

  – Understand why Oracle's claims are false and how to defend

- **Action Plan**

  – Proactively attack Oracle with sales plays on zEnterprise

Oracle's approach

- **Mining their installed base to push for Exadata**

- **Positioning Exadata as best solution for both OLTP and DWH**

- **Leveraging ULA , Try & Buy & HW renewals to place Exadata**

- **Often expanding the discussion to**

  - **SAP** workloads (i.e. BA at Sony or CBA)

  - Leveraging **Exalogic** to bring attack to z workloads….(as the elastic cloud perfectly tuned to run java and non java workloads)

- **This is why we must counterattack!**

Oracle Sells The Benefits Of Business Analytics To Unicoop Firenze

Lesson learnt

- **Largest cooperative company in Italy**
  - Network of 120 stores in Tuscany and Rome
  - Over $1B Annual Revenue
  - 8,500 Employees
- **Migrated from legacy Oracle 10g running on IBM Power Systems to Exadata**
- **Store managers can compile reports 7x faster**
- **Increased number of simultaneous jobs doing night batch-processing from 5 to 30 – reducing costs and batch-window**

- **Already an Oracle customer for BI & DWH**
- **Facing performance issues with BI app**
- **Did not really consider IBM as an alternative**
- **Move of BI app to Exadata triggered also move of Budget app (similar in terms of large volume of data and high user daily interaction)**
- **Required move to Oracle 11.2**
- **3 weeks for setup & benchmark**
- **Performance improvement was not homogeneous**
- **2 months to get to Production**
- **No clear ROI data yet(quote from 07/2011)**

Today's Agenda

Tony Mancini
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Oracle DB Sales
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- **Just What is a ULA (Unlimited License Agreement) anyway?**

- **Why do customers like ULA's?**

- **Why do customers dislike ULA's?**

- **What is a "Support Agreement" and how does this affect my customer**

- **What are the hotspots or area's in a Support Agreement to be concerned with?**

- **What is the best time to try and unseat a ULA?**

- **What can we do or say to a customer to get their attention**

- **Summary and call to Action**

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What is the Oracle Unlimited License Agreement anyway?

- Provides **unlimited usage** of specified products and features

- While most ULA's are based on oracle's technology stack, Oracle will combine technology and application products under one Support Agreement / CSI. Now putting Exadata and other Sun platforms under the ULA / Support Agreement making it pretty much "impossible" to drop support for partial licenses or hardware components

- <u>**Fixed costs**</u> (typically) for license and support for the duration of the agreement

- Term is usually 3-5 years. We have seen ten year agreements in the Govt sector with multi-year extension options. Most ULA agreements are customized to fit each customer, but terms seem to be fairly consistent.

- Customer pays for the full amount of the ULA up front as well as Support annually in advance for the duration of the term. No refunds / credits are ever given.

Larry Ellison has gone on record and said ULA's are Oracle's preferred means of selling:

"We'd much rather sit down with a customer and agree on a company license - use as much as you need. Unlimited License Agreement (ULA) is our preferred license agreement."

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Why do customers like ULA's?

- **Budget predictability**

- **Provides flexibility and reduces risk if projects change in scope**

- **License availability**
  - Reduced time investment and expense of negotiating each purchase separately
  - No compliance audits during the term of the ULA
  - Don't have to see your sales rep for 3 or more years…………….

- **Agreements are almost always 3 yrs long to 5, 7, 10, and with renewal options / extensions**
  - Support is often "flat lined" during the term of the ULA agreement
  - Not to Exceed Pricing built into Support Agreement (4%) or better
  - Support increases based off of prior year discounted Support pricing

- **License True Up at end of contract only to establish entitlement going forward**

- **Multiple financing options**

- **Additional Discounts for Replacement of competitive Installations**

Why do customers dislike ULA's?

- Customer pays a 1 time license fee up front. Support is paid annually in advance

- Must combine all other CSI/Support Agreements into the ULA CSI.

- Customers pay for Support on full contract price in yr 1, 2, 3……………..

- Any licenses not on support must be re-instated or cancelled via a termination letter

- Begin to find out that they can never reduce their Support Spend regardless of the number of licenses they have, with the exception of 0!

- Can remove unwanted / unused licenses or hardware from a Support Agreement but the price will never be lower than it was on the last renewal date.

- Limits their access to other technologies

- Takes away their negotiating power and leverage in other area's

ULA contracts are complex and often customers sign without fully understanding the limitations and future implications:
   "The terms of the contract make it difficult at best to move away from or decrease the footprint of Oracle at the end of the ULA."

What is a "Support Agreement" and how does this affect my customers?

- ULA's are bad, Support Agreements are just plain UGLY!!
- ULA's end but Support goes on forever…………………………………..
- Support terms are onerous at best
- The more you buy the worse you'll feel
- Customer looses leverage and flexibility in future contract negotiations
- All of nothing clause forces customers to pay for licenses they may no longer need

These ULA contracts are complex and often customers sign without fully understanding the limitations and future implications:

"The terms of the contract make it difficult at best to move away from or decrease the footprint of Oracle at the end of the ULA."

Oracle technical support policies

- **Pricing following Reduction of licenses or Support Level**

- Pricing for support is based upon the level of support and the volume of licenses for which support is ordered. *In the event that a subset of licenses on a single order is terminated or if the level of support is reduced, support for the remaining licenses on that license order will be priced at Oracle's list price for support in effect at the time of termination or reduction minus the applicable standard discount. Such support price will not exceed the previous support fees paid for both the remaining licenses and the licenses being terminated or unsupported, and will not be reduced below the previous support fees paid for the licenses continuing to be supported.* If the license order from which licenses are being terminated established a price hold for additional licenses, support for all of the licenses ordered pursuant to the price hold will be priced at Oracle's list price for support in effect at the time of reduction minus the applicable standard discount.

- **Matching Service Levels**

- *When acquiring technical support, all licenses in any given license set must be supported under the same technical support service level* (e.g., Software Update License & Support or unsupported). If you add Extended Support, you still must maintain Software Update License & Support for the entire license set; subject to availability, you must acquire Extended Support for all licenses of a particular version release of a program if you acquire Extended Support for any license in such version release. *You may not support a subset of licenses within a license set; the license set must be reduced by terminating any unsupported licenses. You will be required to document license terminations via a termination letter.*

- **Oracle Software Technical Support Policies Effective Date: 15-June-2010**

Oracle ULA - Support policy Sample

d. End of Unlimited Deployment Period

Following the end of the Unlimited Deployment Period, your use of the programs licensed and certified pursuant to the certification process forth in section E.1.b will continue to be in accordance with the agreement and this ordering document.

> Following the end of the Unlimited Deployment Period, and regardless of the quantity of program licenses in your Certified Deployment, your annual technical support fee for the programs licensed under this ordering document shall be based on but shall in no event be less than the annual technical support fee you paid for such program licenses at the support renewal immediately prior to the end of the Unlimited Deployment Period.

> If at any time after the end of the Unlimited Deployment Period your use of the programs licensed and certified pursuant to the certification process set forth in section E.1.b exceeds the Certified Deployment, then you must acquire additional licenses and technical support for such program(s) for such exceeded use in accordance with Oracle's then current prices and policies.

> If at any time after the end of the Unlimited Deployment Period your use of the programs licensed and certified pursuant to the certification process set forth in section E.1.b decreases such that such use is below the Certified Deployment, you shall not be entitled to a refund or credit of any license and/or technical support fees paid under this ordering document.

e. Restriction on Assignment

Notwithstanding anything to the contrary in the agreement, during the Unlimited Deployment Period you may not assign the licenses of the Unlimited Deployment Programs acquired under this ordering document, or give or transfer an interest in them to another individual or entity.

How Do I Sell Against an ULA?

- Find out if your customer has an **existing ULA** or is a **New ULA prospect**

- Know when the **ULA expires**– terms are usually 3-5 years (Many Govt terms are longer)
  - First 12 months – Educate your customer and sell IBM's unique value
  - 20-24 months – good time to be talking to a **ULA/ELA or Support Renewal** customer
  - 24-30 months – Time is running out, but maybe …

- Understand what **value the customer feels they received from their ULA**
  - Did they deploy what they thought they would or …
- Use the back of a Napkin to show why a **ULA is not** a good deal

- Talk about the "Time Value" of money and how **support** just goes on forever…

- Or, you could propose a **BVA** for your customers **ULA / Support agreement**

Oracle BVA and detailed Contract Review Offer: Output

- **Customers will receive a detailed report with:**
  - Understanding of existing Oracle obligations including:
    - ULA obligations
    - Contract T&Cs
  - Any future obligations
  - Suggestions to prevent lock in during your next negotiation
  - IBM software proposal with TCO and cash-flow clearly explained
  - Covers <u>all</u> Oracle Software (we can offer alternatives to oracle applications too!)
  - Any other conditions which may have future implications for customers

Oracle ULA / *Support Contract Review Offer Details*

- We provide a detailed review of **your Oracle ULA / ELA or Support Contract T&Cs including a:**

  - Review all products that are included in the Unlimited License Agreement
    - Determine if any "dependencies" exist and their effect on the overall agreement
  - Review license and support terms to identify unusual or financially harmful clauses / situations
  - Review hardware platforms to determine where changing out a platform or some level of consolidation may dramatically lower the number of licenses needed or improve performance
  - Review planned / future hardware purchases / upgrades to insure you are receiving the best price / performance option
  - Look at license types to determine if lesser license editions can be used in place of EE
  - Go over implications of your current agreement and long term area's of concern
  - Provide guidance on future license purchases –T's & C's
  - Provide "exit strategy" for terminating existing Support Agreement(s)
  - Confirm renewal limitations
  - Understand Support implications at the end of ULA or Support Agreement

- A detailed report highlighting area's that can be improved, Contract terms that should be renegotiated or added/removed, and an overall assessment of your contract position as it relates to any of the above area's will be provided. We can offer further assistance based on your current situation.

Summary & Call to Action

- We have to be more aggressive in oracle accounts

- Assume the enemy is trying to displace you at every turn

- If Oracle is installed on a zSeries, pSeries or xSeries box, be assured that oracle has pitched them on the benefits of running oracle on Exadata & Exalogic, the new DB applicance, etc

- Call at higher levels – DBA's don't care about saving money
  - Sell our combined hardware and software value proposition
  - Sell our integrity……..

- Where we sell the full resources of team IBM, we win more than we lose!

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IM SWG Contacts to help with oracle take-outs / ULA's

SWIOT Contacts

- Angela Gatopoulou
  SW IOT IM Segment leader
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  +30 6945 586 685 Mobile
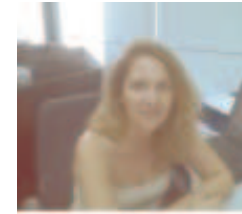
WW Contacts

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- **Angie Payton**, WW DB Tiger Team Sales Exec
  Information Management   paytona@us.ibm.com
- 1-317-432-7925 cell

Tzela

Tony

Angie

url below is link to pre-recorded ULA training session
PPT Deck is synchronized to the recording. Use Windows
media player to open

http://w3.tap.ibm.com/medialibrary/media_view?id=100223

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Successfully Countering Oracle's Attack Requires Three Things

Avijit Chatterjee
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- **Awareness**

  – Know what Oracle is saying, what they are doing and why

- **Analysis**

  – Understand why Oracle's claims are false and how to defend

- **Action Plan**

  – Proactively attack Oracle with sales plays on zEnterprise

What is Exadata X2?

- **Exadata is a storage server for Oracle database**
  - Intended to address the data bandwidth bottleneck that results from Oracle's shared data architecture

- **Exadata X2 Database Machines: X2-2 and X2-8 – launched Sept 2010**
  - Exadata storage servers are included in the Exadata Database Machine
  - Replaces Exadata V2 offerings of Sept 2009

- **Exadata X2-2 is hardware refresh of Exadata V2**
  - ¼ rack, ½ rack, full rack, and 2-8 racks
  - More cores and more memory
  - More cores means more database licenses which increases license cost
  - X2-**2** denotes 2 socket database servers

- **Exadata X2-8 is new high end model**
  - Primarily intended for large OLTP and consolidation environments
  - Full rack only system: 2 large servers for database, rather than 8 smaller servers
  - 50% more expensive for the hardware compared to Exadata V2
  - More cores means more database licenses which increases license cost
  - X2-**8** denotes 8 socket database servers

- **Exadata X2 still based on Intel processors (not Sparc)**
  - X2-2 running Oracle Enterprise Linux on both Database and Storage servers (not Solaris)
  - X2-8 running Solaris on Intel for Database servers and Oracle Enterprise Linux on Storage servers

Exadata V2 vs X2 - Configuration Comparison

Exadata Machine	V2 Full Rack	X2-2 Rack	X2-8
Database Servers	8 Sunfire X4170	8 Sunfire X4170 M2	2 Sunfire 4800
Database CPUs	Intel Xeon E5540 quad-core, 2.53GHz	Intel Xeon X5670 6-core, 2.93GHz	Intel Xeon X7580 8-core, 2.26GHz
Database Cores	64	96	128
Database Memory	576GB	768GB	2TB
Database Server OS	Oracle Linux	Oracle Linux	Oracle Linux or Solaris x86
Exadata Servers	14 x Sunfire X4275	14 x Sunfire X4270 M2	14 x Sunfire X4270 M2
Exadata CPUs	Intel Xeon E5540 quad-core, 2.53GHz	Intel Xeon L5640 6-core, 2.26GHz	Intel Xeon L5640 6-core, 2.26GHz
Exadata Cores	112	168	168
Exadata Memory	336GB	336GB	336GB
Exadata Disk Drives	168 600GB SAS or 168 2TB SATA	168 600GB SAS or 168 2TB SAS	168 600GB SAS or 168 2TB SAS
I/O Bandwidth	Up to 21 GB/Sec	Up to 25 GB/Sec	Up to 25 GB/Sec
User Data Capacity uncompressed	28TB	28TB	28TB
Flash Cache	5.3 TB	5.3 TB	5.3 TB
Exadata Server OS	Oracle Linux	Oracle Linux	Oracle Linux
Hardware Price	$1,000,000	$1,000,000	$1,500,000

Oracle Leads With False Claims Capabilities

Exadata: World's Fastest Database Machine
Software and hardware engineered together for business data

- Best Machine for Data Warehousing
- Best Machine for OLTP
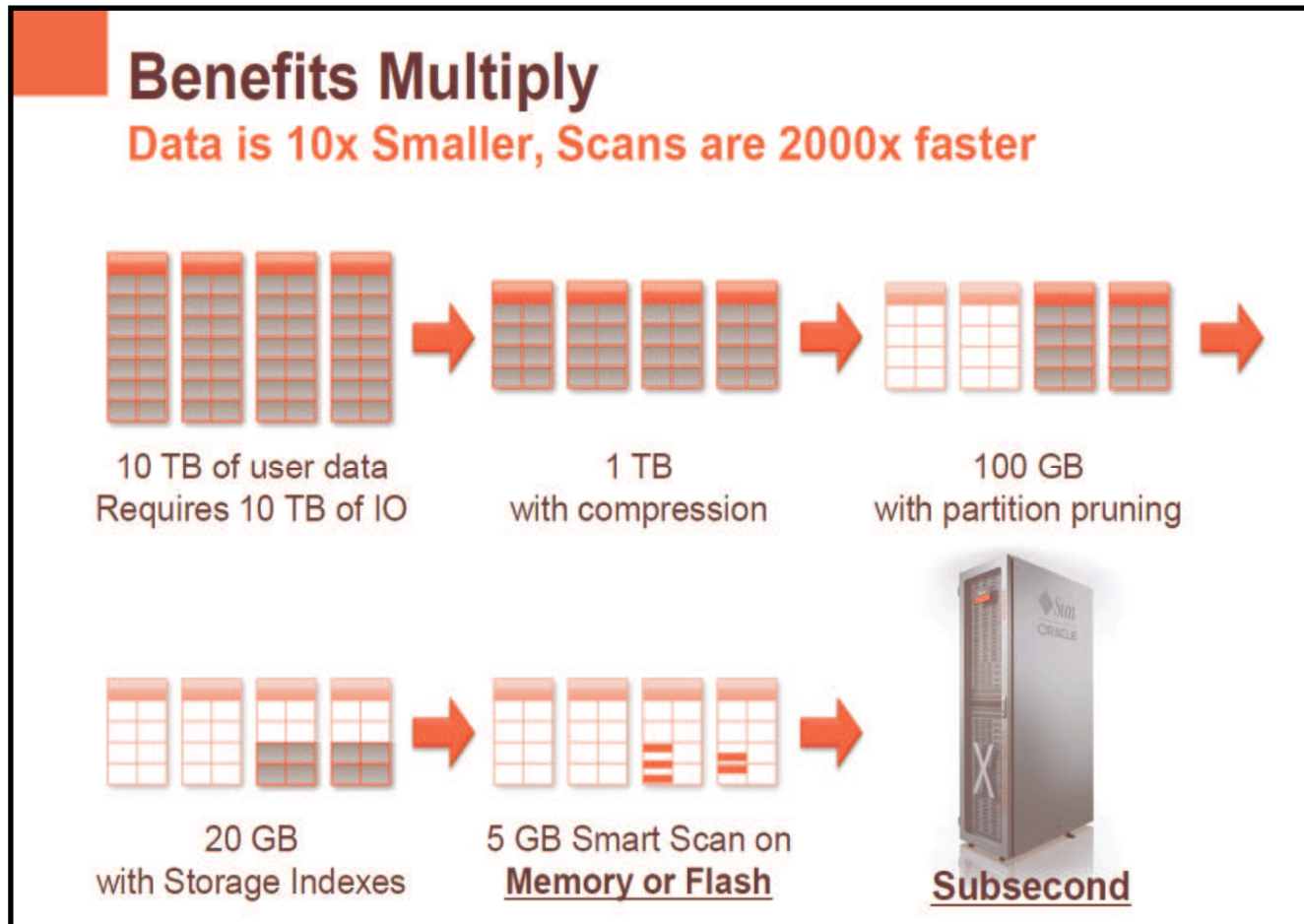- Best Machine for Database Consolidation

ORACLE

They say it loud

Repeat it over and over

"Lies that go unchallenged become true…"

Exaggerations About Exadata Technology

Benefits Multiply

Data is 10x Smaller, Scans are 2000x faster

10 TB of user data
Requires 10 TB of IO

1 TB
with compression

100 GB
with partition pruning

20 GB
with Storage Indexes

5 GB Smart Scan on
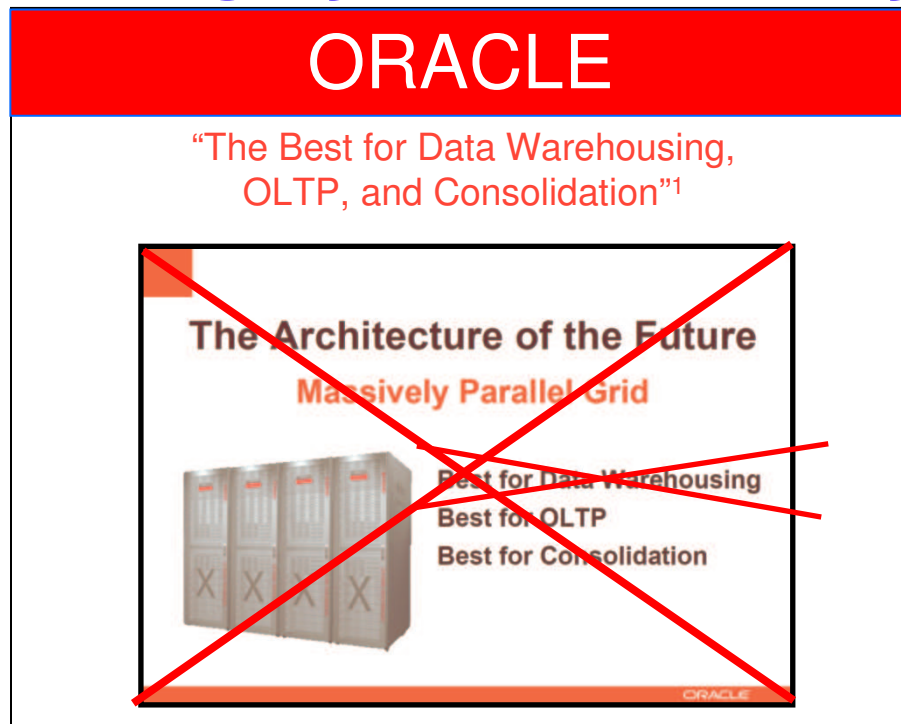**Memory or Flash**

Subsecond

It appears logical

And fools many

But is not true

Customer
measurements
prove it

Oracle cannot be allowed to set the agenda

Would Your Customer Configure An OLTP And Data Warehousing System Identically?

ORACLE

"The Best for Data Warehousing, OLTP, and Consolidation"[1]

The Architecture of the Future

Massively Parallel Grid

Best for Data Warehousing
Best for OLTP
Best for Consolidation

ORACLE

NO

- Oracle Exadata configurations are rigid regardless of workload (Can't change the software stack or add to the hardware)
- Oracle has no TPC-H[2] Data Warehousing Processing Benchmark for Exadata
- Oracle provides no quantification for Exadata claims

[1]Oracle Exadata Claim: Best for Data Warehousing http://www.oracle.com/technetwork/middleware/bi-foundation/exadata-storage-technical-overview-128045.pdf
[2]IBM Shows TPC-H Leadership: http://www.tpc.org/tpch/results/tpch_perf_results.asp

[3]IBM Smart Analytics System: http://www-01.ibm.com/software/data/infosphere/smart-analytics-system/

You Cannot Configure A Database Identically For OLTP And Data Warehousing

- **OLTP workload involves**
    - Read/Write transactions
    - Operations on a few records
    - Sub-second response time requirements
    - CPU intensive operations
    - Data is relatively small and is shared across a cluster for scalability/availability

- **Data Warehousing workload involves**
    - Mostly read-only queries
    - Operations on many records (sometimes all)
    - Response time depends on type of report - simple (seconds), intermediate (minutes) and complex (hours)
    - I/O intensive operations
    - Data is huge and hence partitioned for scalability

Optimize For Business Analytics With IBM DB2 Analytics Accelerator

What is a IDAA?

A workload-optimized, blade-based appliance add-on

Deeply integrated with DB2 for z/OS and transparent to applications

Significantly speeds up the response time for a wide variety of complex queries

Drives down the costs of data warehousing and business analytics

What's new?

- System x blade customized with Netezza Technology
- Incorporates streaming architecture based on Netezza's patented data filtering using Field Programmable Gate Arrays (FPGAs)
- Tuned for delivering fast query response times for a wide variety of decision workloads
- Uses efficient data filtering by early SQL projections
- Storage integrated into the hardware rack
- Supported on DB2 for z/OS v9 or DB2 for z/OS v10 running on a z114 /z196

Breakthrough Technology Enabling New Opportunities

Fast Time to Value

- **Table Acceleration Setup …** 2 Hours
  - DB2 "Add Accelerator"
  - Choose a Table for "Acceleration"

- **IBM DB2 Analytics Accelerator (Netezza 1000-12)**
  - ➜ Production ready - 1 person, 2 days

  - Load the Table (DB2 copy to Netezza)
  - Knowledge Transfer
  - Query Comparisons

- **Initial Load Performance …**
  - ➜ 5.1 GB in 1 Min 25 Seconds (24M rows)
    400 GB in 29 Min (570M rows)

- **Actual Query Acceleration …** 1908x faster
  - ➜ 2 Hours 39 Minutes to 5 Seconds

- **CPU Utilization Reduction …** 99% less CPU
  - ➜ 24M rows: 56.5 CPU seconds to 0.4 CPU seconds

Actual customer results, October 2011

Performance & Savings

Query	Total Rows Reviewed	Total Rows Returned		DB2 Only Hours	Sec(s)		DB2 with IDAA Hours	Sec(s)		Times Faster
Query 1	2,813,571	853,320		2:39	9,540		0.0	5		1,908
Query 2	2,813,571	585,780		2:16	8,220		0.0	5		1,644
Query 3	8,260,214	274		1:16	4,560		0.0	6		760
Query 4	2,813,571	601,197		1:08	4,080		0.0	5		816
Query 5	3,422,765	508		0:57	4,080		0.0	70		58
Query 6	4,290,648	165		0:53	3,180		0.0	6		530
Query 7	361,521	58,236		0:51	3,120		0.0	4		780
Query 8	3,425.29	724		0:44	2,640		0.0	2		1,320
Query 9	4,130,107	137		0:42	2,520		0.1	193		13

Queries run faster

- **Save CPU resources**
- **People time**
- **Business opportunities**

Actual customer results, October 2011

Aetna™

DB2 Analytics Accelerator: "we had this up and running in days with queries that ran over 1000 times faster"
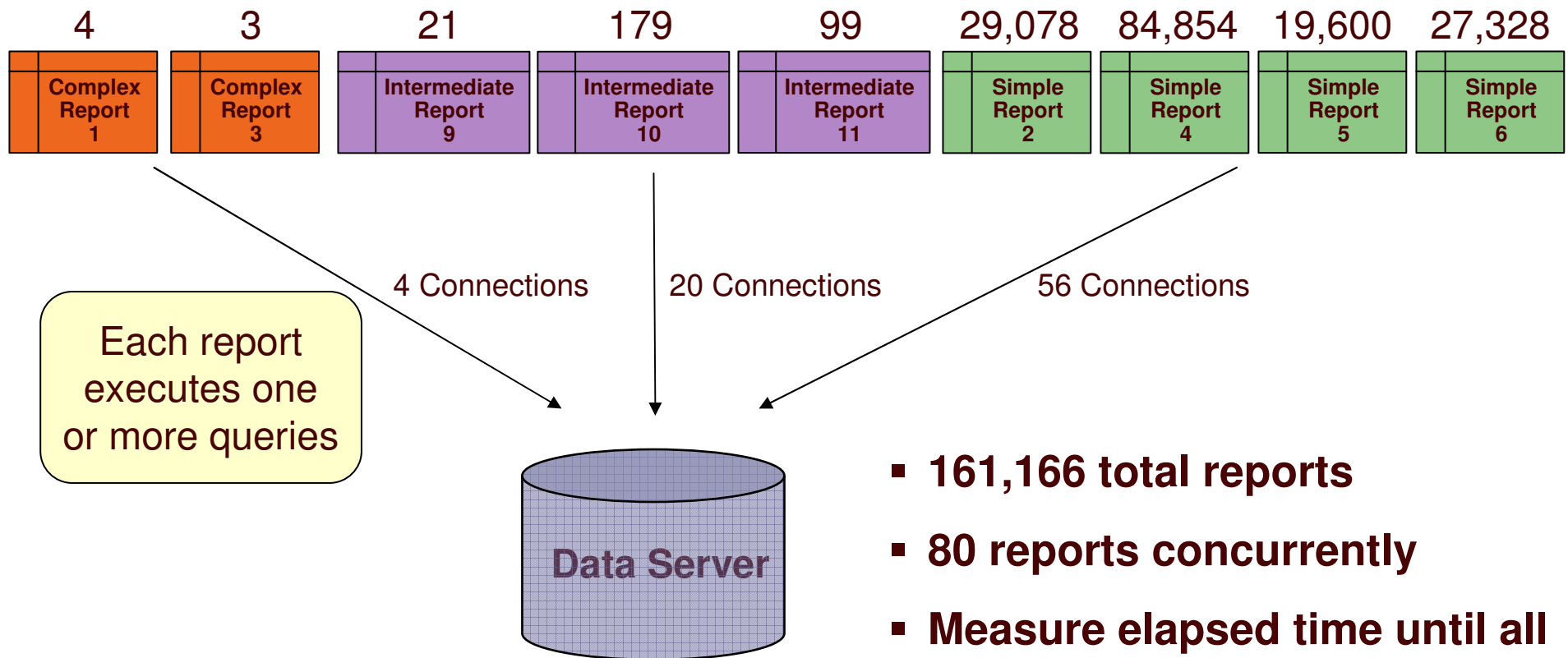
Swiss Re

DB2 Analytics Accelerator: "we expect ROI in less than 4 months"

SwissRe at IOD (go to minute 32:40)   http://www.livestream.com/ibmsoftware/video?clipId=pla_1bc6db16-ac1a-48c2-b50d-2ad13c6ba7ec

Accelerating decisions to the speed of business

BI Day Fixed-Set Operational Reports Run Concurrently On A Periodic Schedule

4	3	21	179	99	29,078	84,854	19,600	27,328
Complex Report 1	Complex Report 3	Intermediate Report 9	Intermediate Report 10	Intermediate Report 11	Simple Report 2	Simple Report 4	Simple Report 5	Simple Report 6

4 Connections   20 Connections   56 Connections

Each report executes one or more queries

Data Server

- **161,166 total reports**
- **80 reports concurrently**
- **Measure elapsed time until all reports are complete**

Note: Distribution of complex, intermediate, and simple workloads based on Forrester Research, Profiling the Analytic End User for Business Intelligence, 2004
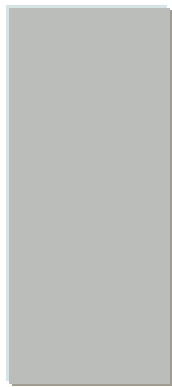
BI Day Fixed-Set Operational Reports Run Concurrently On A Periodic Schedule

- **CASE 1:** **Run concurrently 160,860 simple reports and 306 intermediate and complex reports on Competitor ¼ Rack**

- **CASE 2:** **Run concurrently 160,860 simple reports and 306 intermediate and complex reports on ISAS 9700 with dedicated 24-cores**

- **CASE 3:** **Run concurrently 160,860 simples reports on ISAS 9700 10-cores and in parallel offload 306 intermediate and complex reports serially to IDAA (Twinfin 12)**

ISAS 9700 + IDAA Delivers

5X Performance At 25% The Unit Cost

Competitor	**ISAS 9700**	**ISAS 9700 + IDAA**

DB2 (ISAS 9700)

12 GP+12 zIIP

DB2 (ISAS 9700)

z/OS 5 GP+5 zIIP

Netezza TwinFin 12

Quarter Rack

Unit Cost (3yr TCA)
$97/RpH
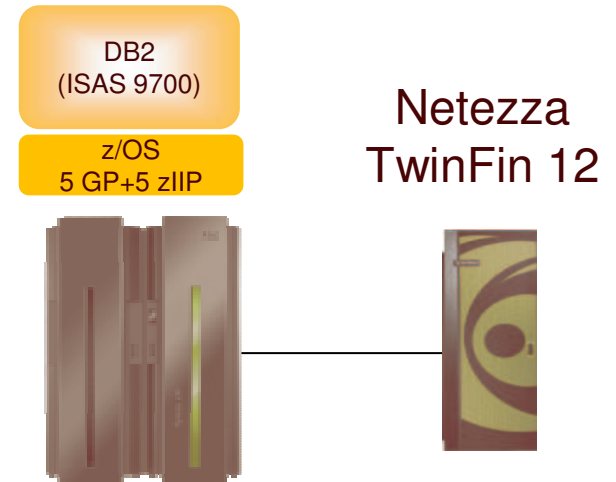
RpH (Reports/Hour)	29,572
Exadata V2 (HW+SW+Storage)	$2,857,500

Source: IBM Competitive Project Office
Customer Study running 161,166 concurrent operational reports.
Results will vary based on customer workload profiles/characteristics.

Unit Cost (3yr TCA)
$62/RpH

RpH (Reports/Hour)	57,904
ISAS 9700 (HW+SW+Storage)	$3,600,000

Unit Cost (3yr TCA)
$24/RpH

RpH (Reports/Hour)	154,893
ISAS 9700 10-cores (HW+SW+Storage)	$1,500,000
NZ TF12 (HW+SW+Storage)	$2,140,600

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Successfully Countering Oracle's Attack Requires Three Things

- **Awareness**
  - Know what Oracle is saying, what they are doing and why

- **Analysis**
  - Understand why Oracle's claims are false and how to defend

- **Action Plan**
  - Proactively attack Oracle with sales plays on zEnterprise

Recognize Opportunity

1. Is the customer running **a data warehouse currently on System z** or does the customer want to run a data warehouse on System z?

2. Do they believe they have **long running queries** that could provide business value if they could be run in seconds vs **30 minutes or more**?

3. Is the customer interested in **modernizing their data warehouse** or **Operational Business Analytics**?

4. Do they have an OLAP application that is **running out of steam** due the growth in data. These are usually a single subject area such as Accounting, Sales or Inventory.

5. Does the customer have a **System z/196 or z114** or planning one in the near future?

DB2 Analytics Accelerator for z/OS SALES PLAY
Netezza appliance connected to System z only accessible through DB2

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

What is the value?

- Fast analytic query response times
- Improve price/performance
- Minimize the need to create data marts
- Highly secure environment
- Transparent to the application

What can be achieved?

- **Offload the most expensive Queries**
  - Time to value < 2 days
  - Query Acceleration > 1000x
  - Query CPU Reduction > 99%
  - Return on Investment < 6 months
- **Better investment than Exadata**
  - 5x the throughput
  - 25% the unit cost

What you sell and how

"Back of the Envelope" ROI

Consider the MIPs of your z196 / z114

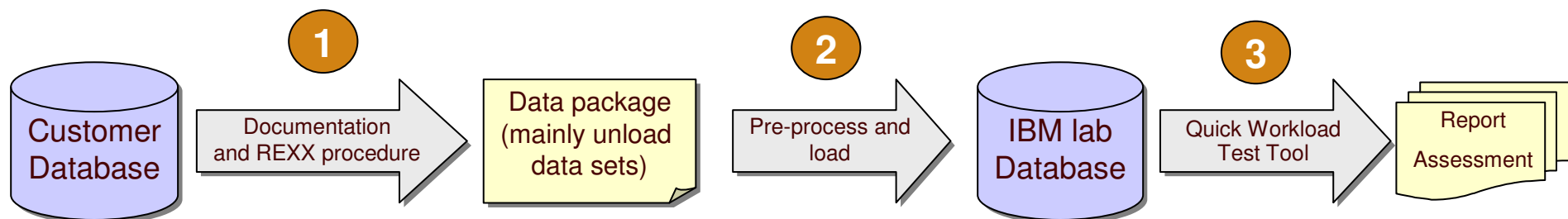Consider software MLC reduction: z/OS, CICS, DB2…

Consider hardware value of MIPs redeployed

Examples of 6 month ROI:
- Avoiding 400 MIPs is roughly the cost of an IDAA Netezza 1000-3
- Avoiding 800 MIPs is roughly the cost of an IDAA Netezza 1000-6
- Avoiding 1600 MIPs is roughly the cost of an IDAA Netezza 1000-12

Next step: Quick Workload Test

- Customer
  - Collecting information from dynamic statement cache, supported by step-by-step instruction and REXX script (small effort for customer)
  - Uploading compressed file (up to some MB) to IBM FTP server

- IBM / Center of Excellence
  - Importing data into local database
  - Quick analysis based on known DB2 Analytics Accelerator capabilities

Customer Database → **1** Documentation and REXX procedure → **Data package (mainly unload data sets)** → **2** Pre-process and load → **IBM lab Database** → **3** Quick Workload Test Tool → **Report Assessment**

Sales Play For Business Analytics On zEnterprise

IBM Smart Analytics System 9710	IBM Smart Analytics System 9700	IBM DB2 Analytics Accelerator *(Replaces ISAO)*
ISAS 9710 Sales Kit	ISAS 9700 Sales Kit	IDAA Sales Kit
Introductory z114	**z196 + DS8800 Storage**	**System z114/z196 + IDAA**

Cognos 8 Business Intelligence for z/OS

SPSS for Linux on System z

Analytics Hypergrowth: Cross-STG initiative

Lead with ISAS 9700/9710 for upgrades to connect to IDAA (ISAO V1 End of Marketing 4Q2011).

Actions

- Engage global contacts for assistance: Joy Spohn or Charlie Goodman.

- External: Data Warehousing and Business Intelligence on System z

- Internal: Dynamic Warehousing on System z

Call To Action

- **Be aware of Oracle's attack on your customers**

- **Identify target customer list by IOT:**

  – Make unsolicited proposal for z and DB2 + IDAA + IBM Smart Analytics System together w/STG

  – Anticipate Oracle's attack

- **By-weekly reviews with WW to:**

  – Track progress made on proposals and customer engagements

  – Address any pricing or support issue

Who To Go To For Help?

Worldwide Netezza **team – asknetezza@us.ibm.com**

Worldwide Marketing **Data Warehouse**

- **Data Warehousing on System z - SWG –** Alan Meyer
- **Data Warehousing on System z - STG –** Caryn Meyers

Americas **Data Warehousing for z/OS Team - dwonz@us.ibm.com**

- **DWH on z Product Manager and OT Lead -** Beth Hamel
- **SWAT Team Lead; Senior Certified Consulting IT Specialist -** Jonathan Sloan
- **Advanced Technical Sales Specialist -** Andy Perkins
- **Data Warehouse Solutions for System z -** Sundari Voruganti
- **Senior Certified Consulting IT -** Willie Favero
- **IBM Smart Analytics System 9700 Product Manager** - Laura Hunsinger

EMEA **Data Warehousing for z/OS Team – dwhz@de.ibm.com**

- **IBM DB2 Analytics Accelerator Offering Team Leader –** Dirk Langhorst
- **Center of Excellence for Data Warehousing Manager –** Martin Schneider
- **Center of Excellence Team Lead, IT Architect –** Frank Neumann
- **IBM DB2 Analytics Accelerator Product Manager –** Wolfgang Hengstler
- **ISAS 9700 consulting and sizing –** Dirk Johann
- **DWH Advanced Technical Specialist –** Patric Becker

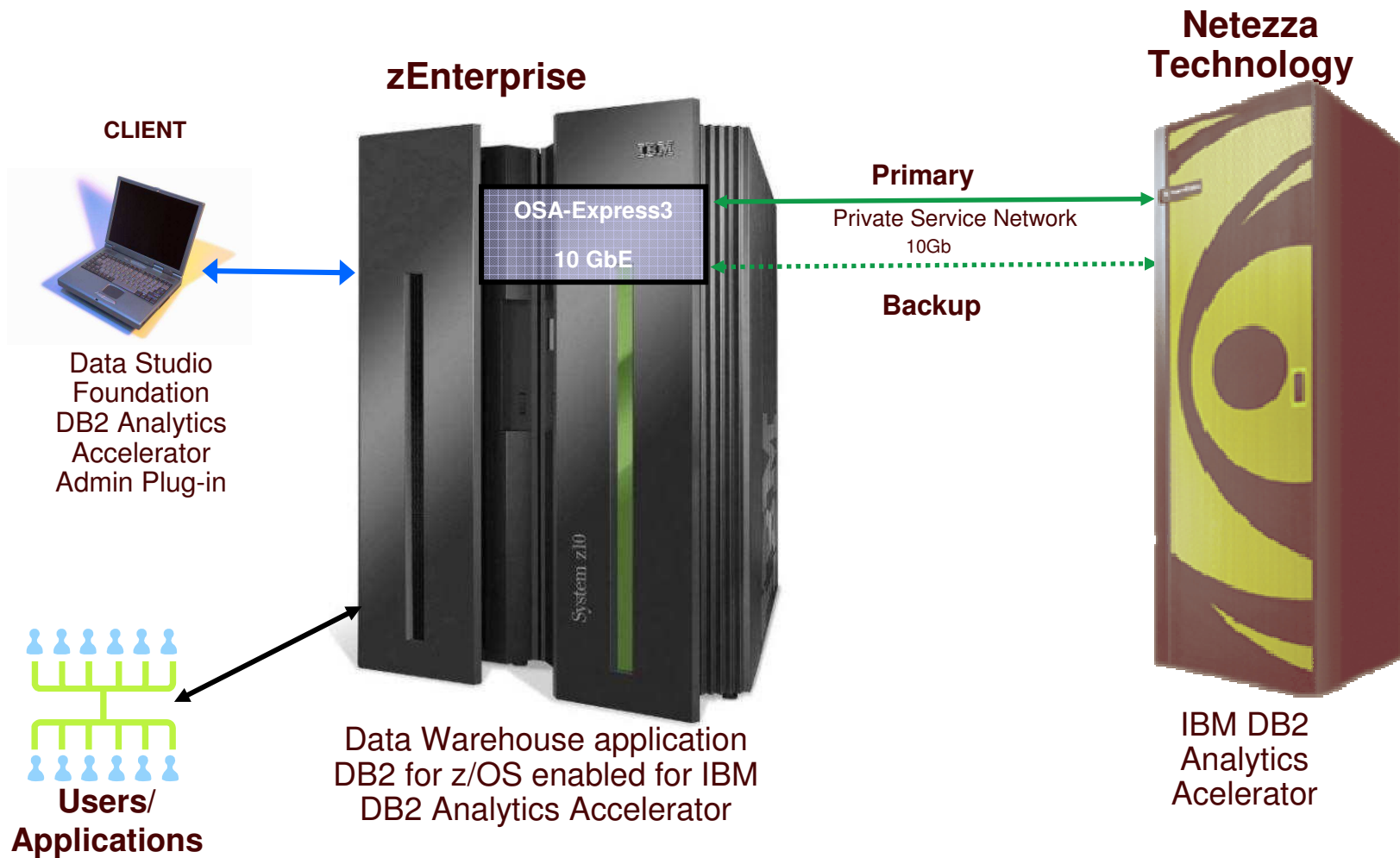**In** AP**, please contact the center closer to your time zone.**

Questions?

Oracle Sells The Benefits Of Business Analytics To Unicoop Firenze

- **Largest cooperative company in Italy**
  - Network of 120 stores in Tuscany and Rome
  - Over $1B Annual Revenue
  - 8,500 Employees

- **Migrated from legacy Oracle 10g running on IBM Power Systems to Exadata**

- **Store managers can compile reports 7x faster**

- **Increased number of simultaneous jobs doing night batch-processing from 5 to 30 – reducing costs and batch-window**
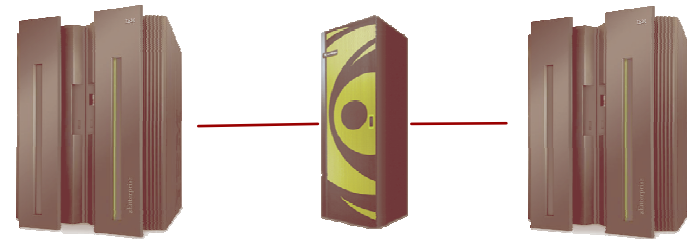
Solution Components

zEnterprise

Netezza Technology

CLIENT

OSA-Express3

10 GbE

Primary

Private Service Network
10Gb

Backup

Data Studio
Foundation
DB2 Analytics
Accelerator
Admin Plug-in

Data Warehouse application
DB2 for z/OS enabled for IBM
DB2 Analytics Accelerator
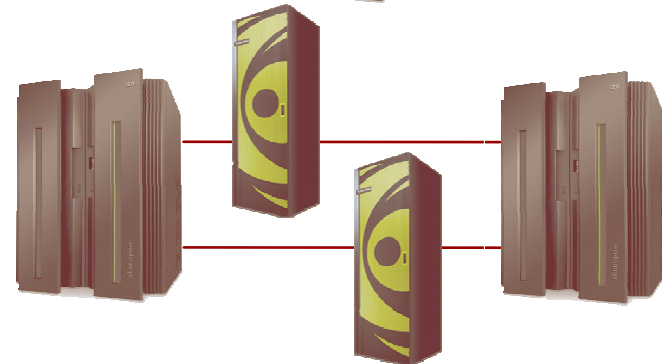
IBM DB2
Analytics
Acelerator

Users/
Applications

Connectivity Options

Multiple DB2 systems can connect to a single IDAA

A single DB2 system can connect to multiple IDAAs

Multiple DB2 systems can connect to multiple IDAAs

Better utilization of IDAA resources
Scalability
High availability

Full flexibility for DB2 systems:

- residing in the same LPAR
- residing in different LPARs
- residing in different CECs
- being independent (non-data sharing)
- belonging to the same data sharing group
- belonging to different data sharing groups

Netezza 1000 Appliance Scalability

	TF3	TF6	TF12	TF24	TF36	TF48	TF72	TF96	TF120
Cabinets	1/4	1/2	1	2	3	4	6	8	10
Processing Units	24	48	96	192	288	384	576	768	960
Capacity (TB)	8	16	32	64	96	128	192	256	320
Effective Capacity (TB)*	32	64	128	256	384	512	768	1024	1280

Current IDAA Platforms

Predictable, Linear Scalability throughout entire family

Capacity   = User Data space
Effective Capacity = User Data Space with compression

*: 4X compression assumed

IBM Smart Analytics System 9700 Delivers Twice The Performance For 36% Less Cost
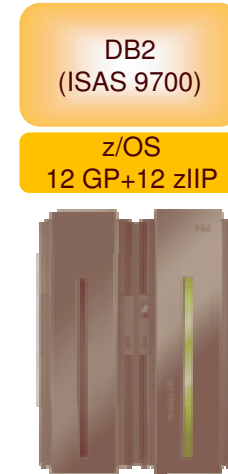
CASE 1: Competitor
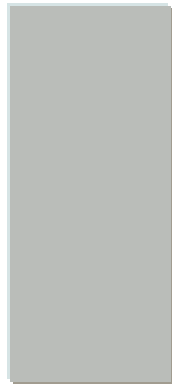
Quarter Rack

CASE 2: ISAS 9700

DB2
(ISAS 9700)

z/OS
12 GP+12 zIIP

Unit Cost (3yr TCA)   **$97/RpH**

RpH (Reports/Hour)	29,572
Exadata V2 (HW+SW+Storage)	$2,857,500

Unit Cost (3yr TCA)   **$62/RpH**

RpH (Reports/Hour)	57,904
ISAS 9700 24-cores (HW+SW+Storage)	$3,600,000

Source: Customer Study running 161,166 concurrent operational reports. Results may vary based on customer workload profiles/characteristics.

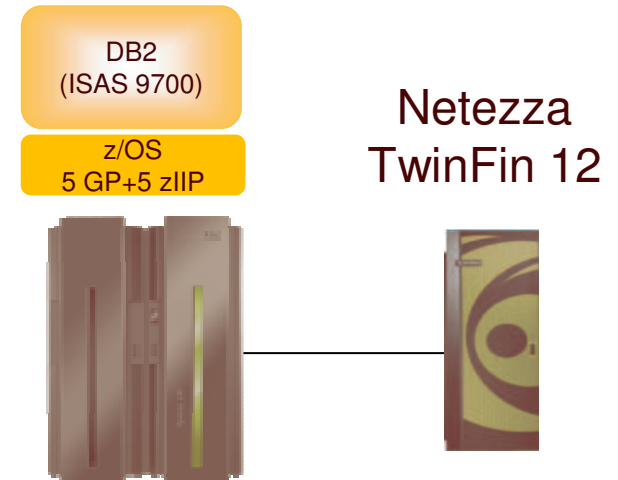# IBM DB2 Analytics Accelerator Triples Performance And Reduces Unit Cost

CASE 2: ISAS 9700

DB2
(ISAS 9700)

z/OS
12 GP+12 zIIP

Unit Cost (3yr TCA) $62/RpH

RpH (Reports/Hour)	57,904
ISAS 9700 (HW+SW+Storage)	$3,600,000

CASE 3: ISAS 9700 + IDAA

DB2
(ISAS 9700)

z/OS
5 GP+5 zIIP

Netezza
TwinFin 12

Unit Cost (3yr TCA) $24/RpH

RpH (Reports/Hour)	154,893
ISAS 9700 10-cores (HW+SW+Storage)	$1,500,000
NZ TF12 (HW+SW+Storage)	$2,140,600

Source: Customer Study running 161,166 concurrent operational reports. Intermediate/Complex Reports offloaded to IDAA for serial execution. Results may vary based on customer workload profiles/characteristics.

ISAS 9700 + IDAA Delivers 5X Performance At One Fourth The Unit Cost
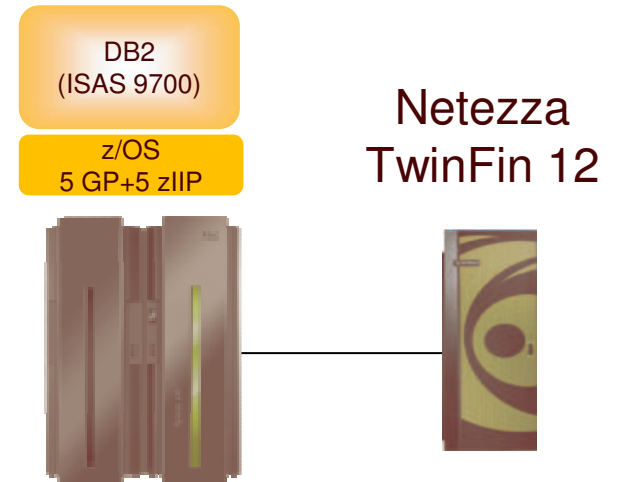
CASE 1: Competitor

Quarter Rack

CASE 3: ISAS 9700 + IDAA

DB2
(ISAS 9700)

z/OS
5 GP+5 zIIP

Netezza
TwinFin 12

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CPO Eagle Team

- Since 2007, the Eagle Team has helped close new business or protect System z hardware and software revenue to the tune of **$1.15 billion**

- Our success continues into 2011 with more than $300M in revenue
  - AT&T, Emirate Airlines, Bank of New York, Portugal Telecom, Taiwan Depository & Clearing Corporation and Bank Leumi.

- Team of TCO consultants has more than 200 years of IT experience across a broad range of IBM & non-IBM hardware and software platforms.

- Eagle Team has performed more than 200 **free-of-charge** Total-Cost of Ownership (TCO) studies

- Typically, TCO study compares three "what-if" scenarios:
  1) Taking applications off the mainframe to a distributed environment
  2) Moving applications from a distributed environment to the mainframe
  3) Identifying the least costly place to put a new application

For more information contact Craig Bender to discuss your particular situation or visit our website.

CPO Website

- **Rehosting Battlekit**

    – https://w3-03.ibm.com/sales/competition/compdlib.nsf/weball/09A81E4358B7400785257707006DAC7C?OpenDocument

- **z Competitive Project Office website –Lunch and Learns, white papers, resources, contacts, searches, etc.**

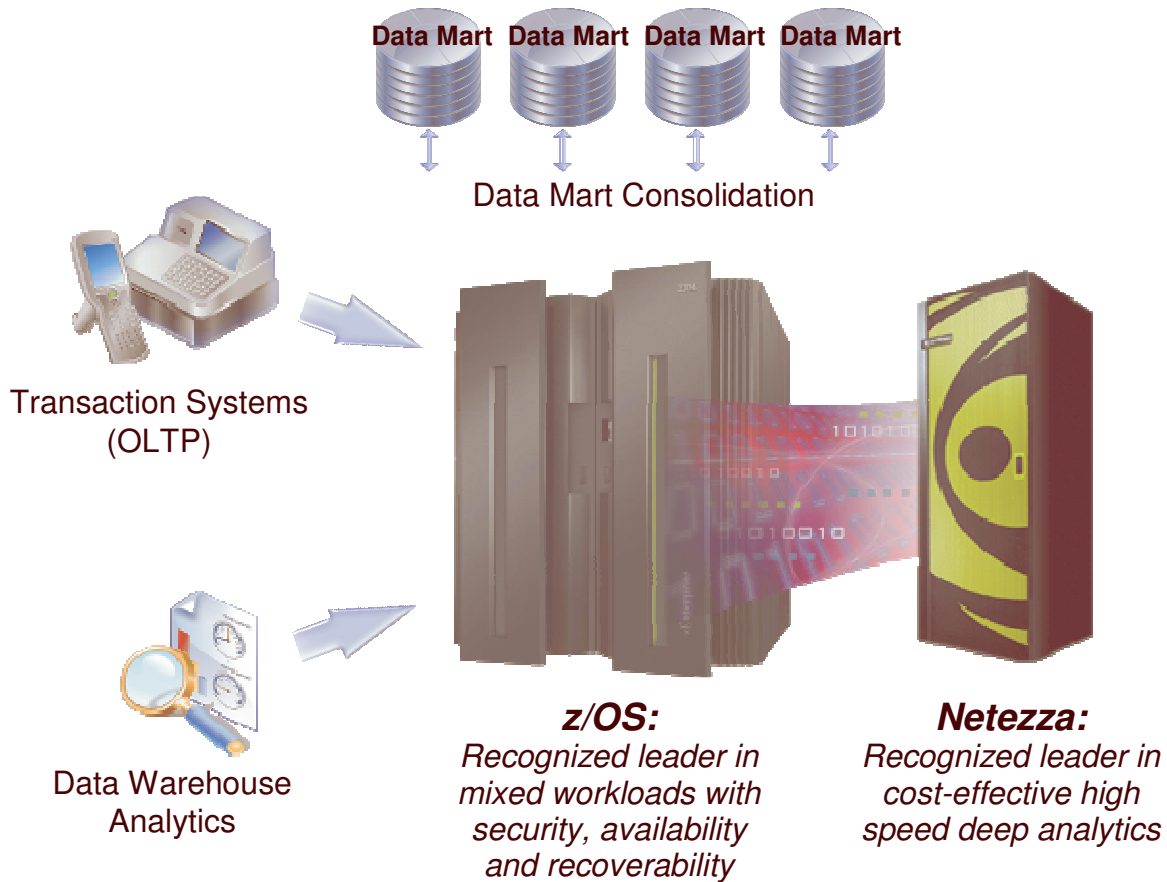   – https://w3-03.ibm.com/sales/competition/compdlib.nsf/weball/35E54FD1BD2AE8880025740A00528771?OpenDocument

- **Questions about zCPO Programs, Events or Enablement:**

    Rajesh Gurjar - Rajesh Gurjar/San Jose/IBM

Best of All Worlds

IBM DB2 Analytics Accelerator for z/OS
Netezza 1000 System z Appliance

Data Mart   Data Mart   Data Mart   Data Mart

Data Mart Consolidation

Transaction Systems
(OLTP)

Data Warehouse
Analytics

z/OS:
Recognized leader in
mixed workloads with
security, availability
and recoverability

Netezza:
Recognized leader in
cost-effective high
speed deep analytics

Best in OLTP

Industry recognized leader in
mission critical transaction
systems

Best in Data Warehouse

Proven appliance leader in high
speed analytic systems

Best in Consolidation

Unprecedented mixed workload
flexibility and virtualization
providing the most options for
cost effective consolidation

This is the biggest game changer in 10 years

- Offload **the most expensive queries and still keep them under the control of DB2 for z/OS**

- Save **significant hardware and software costs to apply to other projects/purchases**

- Stop **expensive projects that offload data and analytics from the mainframe**

- Avoid **making costly copies of data – Teradata, Exadata, Datamarts**

Aetna™

DB2 Analytics Accelerator: "we had this up and running in days with queries that ran over 1000 times faster"

Swiss Re

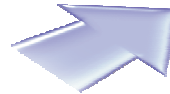DB2 Analytics Accelerator: "we expect ROI in less than 4 months"

CHARTIS

Cognos BI for System z "We didn't have to justify a higher cost for putting this on the mainframe, *it was cheaper!*"

Intelligent Solutions, Inc.

Analyst Claudia Imhoff "the industry pendulum in swinging towards centralization and there is no better platform than the mainframe"

Who Gets Paid?

Netezza Reps

Commissioned on the Netezza 1000

SWG Reps (IM, zIM, zSSRs)

Commissioned on the Netezza 1000
    – use the "for System z" parts
Commissioned on DB2 Analytics Accelerator SW
Any supporting z/OS DW SW

STG Reps

Any supporting z/OS DW HW
Additional workload and z196, z114 prereq