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EVENTOS REGIONAIS 2010

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Novas funcionalidades do DB2 9.7 para SAP e o Caso de Sucesso da Coca-Cola.

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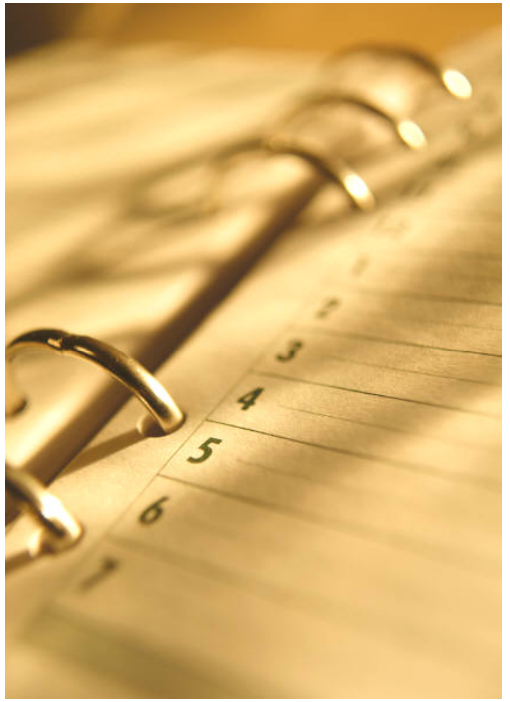
Agenda

- IBM DB2 9.7 & SAP Aliança
- DB2 9.7 Funcionalidades
- Caso de Sucesso Coca-Cola
- Outros Casos



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DB2/SAP Executive Message

- SAP's Strategic Database
  - Joint product roadmap
  - Joint Development & Support & Service
  - Certification speed - competitor takes years vs weeks
- Lowest TCO
  - 38% - 74% Price Advantage over Oracle (OEM SAP)
  - Storage Savings with DB2 Compression
    - 60% savings
  - Best Performing Database for SAP
    - 20-25% better performance
  - 25%-30% less Administration Costs
    - Oracle has 14 times more patches

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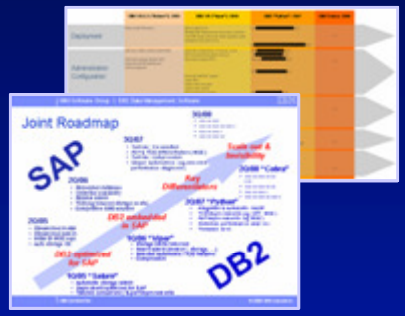
SAP - IBM/DB2

Partnership

Integration

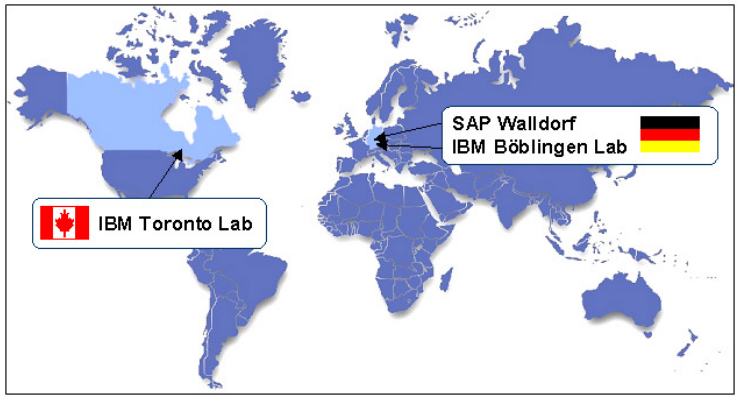
Innovation

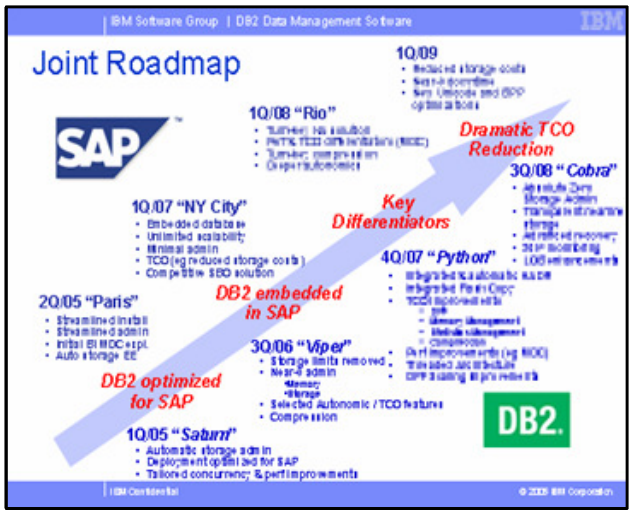


SAP & DB2
UNIQUE ALLIANCE

SAP-DB2 Unique Alliance: Partnership

- 150 engineers from SAP and IBM working together:
  - Inventing, Creating, Planning, Implementing, Reviewing, Supporting
- Joint Roadmap
- Before IBM releases any new version of DB2, SAP tests and certifies it
- DB2 is the Leader in SAP Benchmarks





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Vendor Database GA x SAP Database Certification

Database (DB)	Database GA	SAP DB GA	GA Delta	Comments
Oracle 9i	**June 2001**	**During Q1 2003**	78-91 weeks	**Different dates for different SAP releases**
Oracle 10g	**Jan 2004**	**~ Q2 2006**	~125 weeks	**Backward comp. · 4.6D**
Oracle 11g	**Jul 2007**	**Q1/2010**	~2.5yrs	**SAP will support 11.2 only**
DB2 v8.2.2	**April 29, 2005**	**June 3, 2005**	4 weeks	**1st DB2 optimized for SAP Software release**
DB2 9	**July 28, 2006**	**Aug 31, 2006**	4 weeks	**2nd DB2 optimized for SAP Software release Backward comp. ·3.1I**
DB2 9.5	**Oct 31, 2007**	**Dec 20, 2007**	7 weeks	**Optimized for NetWeaver 7.0 SR3**
DB2 9.7	**Jun 31, 2009**	**Aug 28, 2009**	8 weeks	**Optimized for NetWeaver 7.0 SR3**

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DB2 Quality

SAP OSS Note / Link	Database Version/Release

- **DB2*** Version 9 has **11 patches** (over last 38 month)
- **Oracle*** Version 10.2 has **67 patches** (over last 34 month)
- **SQL Server 2005*** has **68 patches** (over last 30 month)
- **DB2 requires less patches, less downtime, less administration effort**

* Status: September 10, 2009

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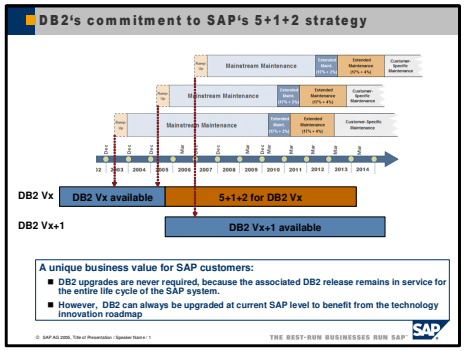
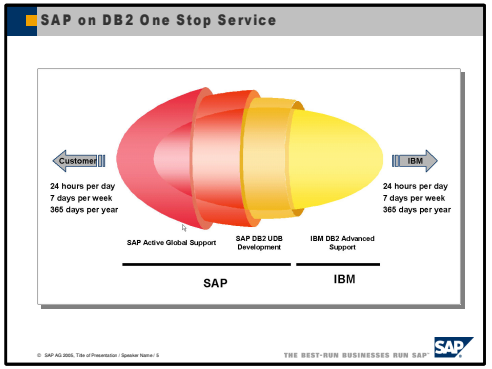
SAP-DB2 Unique Alliance: Integration

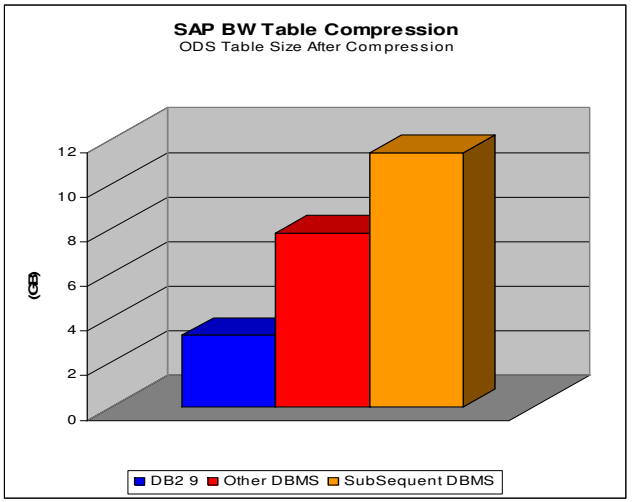
- **SAP on DB2 is a fully integrated product**
  - Integrated installation of DB2 software during SAP install *
  - Integrated HA setup during SAP install *
  - One-step SAP-tailored DB2 configuration: DB2_WORKLOAD=SAP
  - Full DB2 administration and monitoring through SAP DBACOCKPIT
- **One-stop support offering**
  - All customers receive one-stop service through SAP
  - Joint service and support staffed with SAP and IBM engineers
- **Aligned maintenance cycles**
  - IBM DB2 follows SAP's 5+1+2 maintenance strategy
  - No mandatory DB upgrades
- Reduce Risks and Ownership Costs

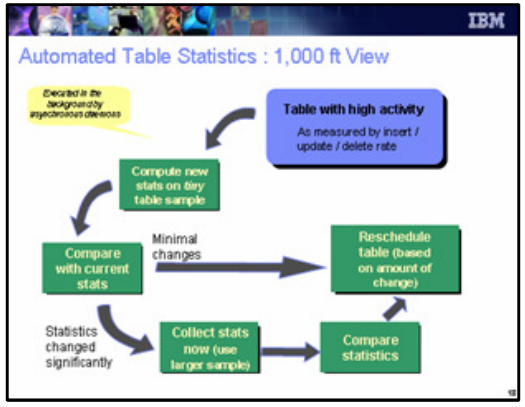




SAP-DB2 Unique Alliance: Innovation

- Deep Compression
- Autonomics and Integration
- Workload Manager
- Additional Features at no Additional Cost
  - High Availability
  - Data Partitioning
  - Multi-Dimensional Clustering
- **Lower License & Maintenance Costs**





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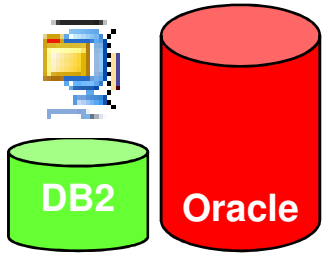
DB2 Savings – Starts with the Sizing

	Traditional Approach	Conservative Adjustment (30% I/O savings, 15% Memory savings)	Aggressive Adjustment (50% I/O savings and 25% Memory savings)
ERP I/O per second	SAPS * 0,4	SAPS * 0,28	SAPS*0,2
BI I/O per second (*)	SAPS * 0,6	SAPS * 0,41	SAPS * 0,3
DB memory Non Unicode	SAPS DB server * 0,003	SAPS DB server * 0,00255	SAPS DB server * 0,00225
DB memory Unicode (**)	SAPS DB server * 0,00375	SAPS DB server * 0,00319	SAPS DB server * 0,0028

(**) For Unicode one might add another 3% memory savings for DB2 in conservative and 5% memory savings in aggressive adjustment to account for the better representation in DB2

Disc Space Savings with DB2 Compression

- **Oracle · DB2 Migration + Disc Sapce Savings:**
  - German Customer (SAP ERP, 1611 GB · 920 GB): 43%
  - German Customer (SAP BI, 213 GB · 131 GB): 38%
  - German Customer (SAP BI, 8 TB · 4 TB): 43%
  - German Customer (SAP BI, 3614 GB · 2217 GB): 39%
  - German Customer (SAP ERP, 2427 GB·1382 GB): 43%
  - Germany Customer (SAP ERP: 2302 GB · 1102 GB): 52%
  - German Customer (SAP ERP, 1600 GB ·612 GB): 62%
  - German Customer (SAP ERP: 1486 GB · 706 GB): 53%
  - Turkish Customer (SAP ERP, 2418 GB ·1451 GB): 40%
  - US Customer (SAP BI, 2305 GB · 1338 GB): 42%
  - Russian Retailer (SAP ERP, 1616 GB · 473 GB): 64%
  - **Coca Cola Bottling > 40 % redução em produção**
  - **Tellabs > 40 % redução em produção**
  - **INA > 43 % redução em produção**
  - **Pacific Corp > 43 % redução em produção**

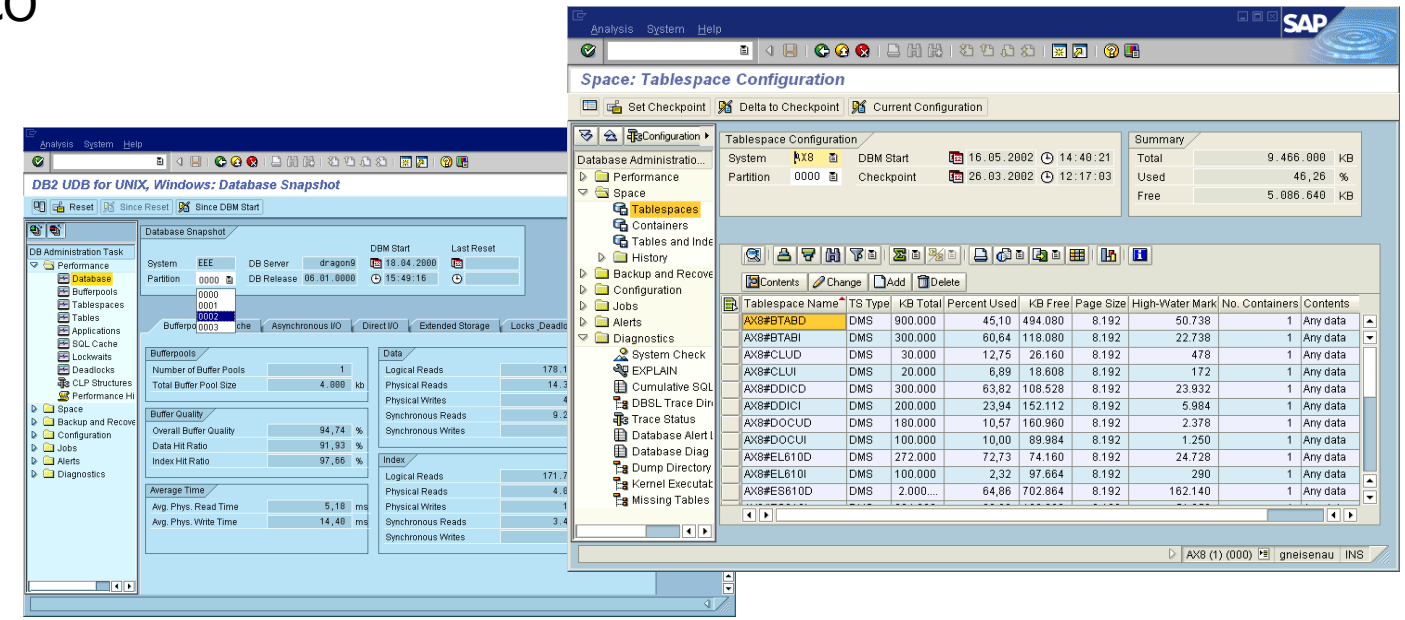


Ø > 40%

SAP-DB2 Unique Alliance: Innovation - State of the Art: DB2 Administration

- Totally Integrated with SAP
  - DBA's can do everything from the same interface
  - 30% DBA effort reduction to manage SAP databases
  - DB2 silent install for SAP & Automatic performance configuration
  - Ability to work with any DB2 database in the system landscape (also non-SAP)

- Lower TCO



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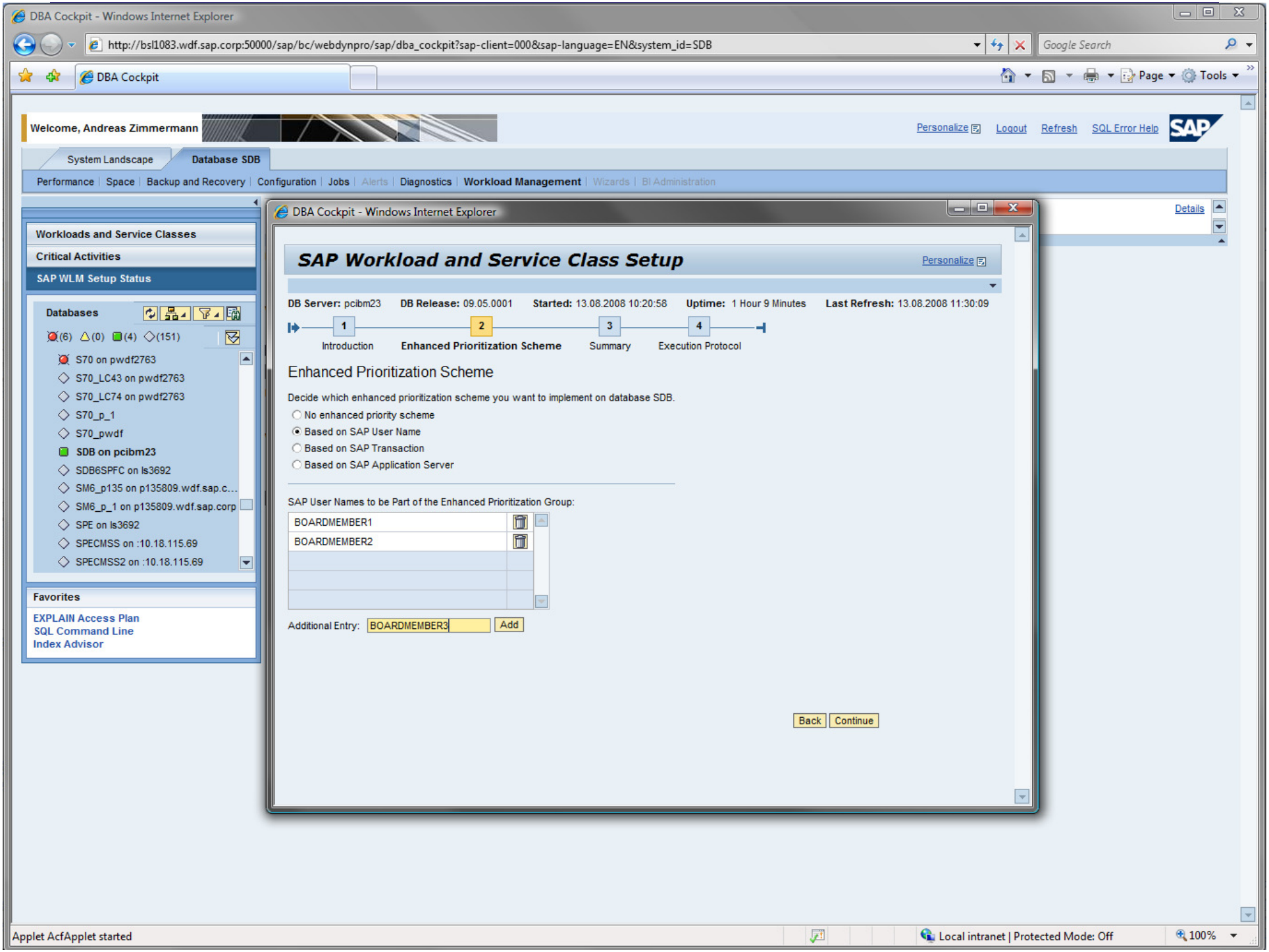
DB2 WLM Integration into SAP DBA Cockpit*

- DB2 WLM allows to prioritize and control workloads on database level:
  - Assign more or less CPU and I/O Resources
  - Per SAP Transaction; per SAP User; per SAP Application Server

- DB2 WLM provides the following advantages to SAP applications:
  - Better and more stable response times of business critical tasks
  - Prioritization of workloads
  - Better utilization of hardware resources
  - Less need to monitor and control workloads manually

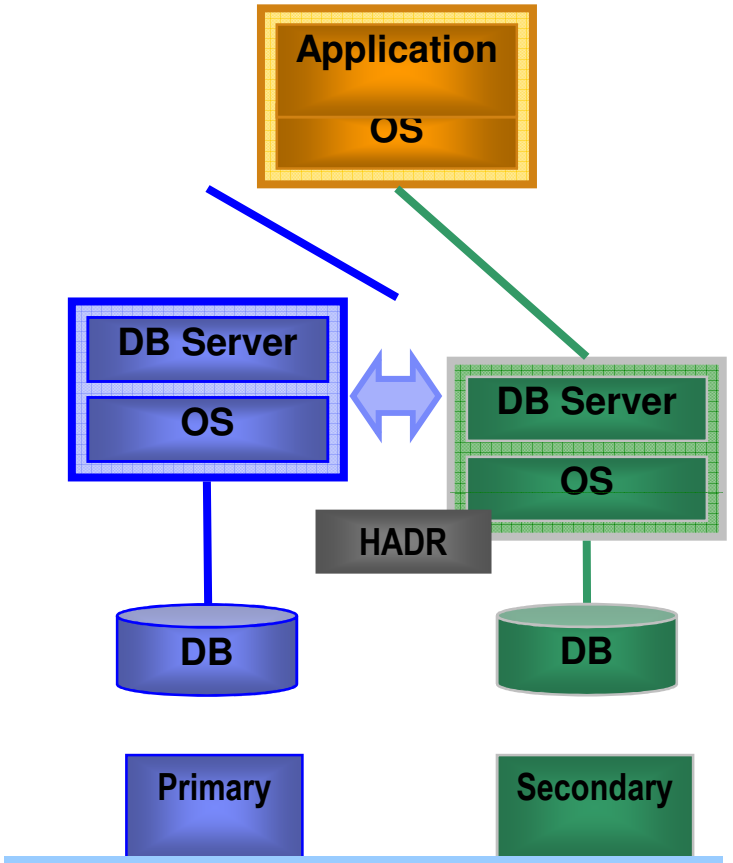
- Integration of DB2 WLM with SAP will continue in the future for existing and for new DB2 WLM features.

** Available with SAP Enhancement Package 1 for SAP NetWeaver 7.0 (included in SAP Solution Manager SP18 available January 2009)*


DBA Cockpit - Windows Internet Explorer
http://bsl1083.wdf.sap.corp:50000/sap/bc/webdynpro/sap/dba_cockpit?sap-client=000&sap-language=EN&system_id=SDB
Google Search
DBA Cockpit
Page
Tools
Welcome, Andreas Zimmermann
Personalize
Logout
Refresh
SQL Error Help
SAP
System Landscape
Database SDB
Performance | Space | Backup and Recovery | Configuration | Jobs | Alerts | Diagnostics | Workload Management | Wizards | BI Administration
Workloads and Service Classes
Critical Activities
SAP WLM Setup Status
Databases
(6) (0) (4) (151)
S70 on pwdf2763
S70_LC43 on pwdf2763
S70_LC74 on pwdf2763
S70_p_1
S70_pwdf
SDB on pcibm23
SDB6SPFC on ls3692
SM6_p135 on p135809.wdf.sap.c...
SM6_p_1 on p135809.wdf.sap.corp
SPE on ls3692
SPECMSS on :10.18.115.69
SPECMSS2 on :10.18.115.69
Favorites
EXPLAIN Access Plan
SQL Command Line
Index Advisor
Details
DBA Cockpit - Windows Internet Explorer
SAP Workload and Service Class Setup
Personalize
DB Server: pcibm23 DB Release: 09.05.0001 Started: 13.08.2008 10:20:58 Uptime: 1 Hour 9 Minutes Last Refresh: 13.08.2008 11:30:09
1 Introduction
2 Enhanced Prioritization Scheme
3 Summary
4 Execution Protocol
Enhanced Prioritization Scheme
Decide which enhanced prioritization scheme you want to implement on database SDB.
No enhanced priority scheme
Based on SAP User Name
Based on SAP Transaction
Based on SAP Application Server
SAP User Names to be Part of the Enhanced Prioritization Group:
BOARDMEMBER1
BOARDMEMBER2
Additional Entry: BOARDMEMBER3
Add
Back
Continue
Applet AcfApplet started
Local intranet | Protected Mode: Off
100%

SAP-DB2 Unique Alliance: Innovation - HADR: High Availability Disaster Recovery

- Ultra-fast failovers (no instance restart)
- Rolling upgrades
- Two active machines
  - Primary & Secondary
    - Receives and stores log entries from the primary
    - Re-applies the transactions
  - If the primary fails, the secondary can take over the transactional workload
  - If the failed machine becomes available again, it can be resynchronized



Failover in 11 seconds demonstrated in test of SAP environment with 600 users !

70 % faster backup time

Coca-Cola Bottling
Unicode Upgrade + Migration to DB2

- *Upgrade do novo sistema SAP – Oracle 9 i para 10g – Alto investimento em Licenças para obter os benefícios e novos recursos*
- *Porém falta de conhecimento em DB2*
- *Menor custo do DB2 X 10 anos trabalhando com Oracle X Alto Custo das novas lincenças do Oracle 10g*
- *IBM, SAP & Coca-cola montaram um time – 4 Coca-cola, 1 IBM (2 meses e meio de migração)*
- *Uma das bases tinha 1 terabyte – 40% de compressão com o DB2*
- *O tempo de execução dos processos batch foi reduzido em 65%*

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Coca-Cola Bottling
Unicode Upgrade + Migration to DB2

- *"By choosing to implement DB2 compression right away, we have reduced the database size by around 40 per cent. This gives us faster backup and reduced storage costs, and makes the SAP technical upgrades easier and quicker."*
- "We have been pretty pleased with performance, compression savings and things like the self-tunning memory with DB2, now ours DBAs doing the work have a lot more time to focus on SAP issues rather than Oracle issues."

Andrew Juarez

SAP Lead Basis

Coca-Cola Bottling Company Consolidated

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Coca-Cola Bottling
Unicode Upgrade + Migration to DB2 - Benefits

- *Breakeven in 8 months*
- *Database migration + SAP Unicode Conversion saved time, money, no overhead*
- *Even with Unicode conversion, reduction in storage needs of approximately 40 per cent*
- *Manufacturing runs 65% faster*
  - *From 90 minutes to just 30*
- *The migration was completed under budget and ahead of schedule*
- *Less than 26 hours of planned downtime*
  - *Saving time and costs.*
- *Reduced overall licensing and maintenance costs*
  - *No purchase of additional Oracle licenses.*
- *DB2 is better integrated into SAP*
- *Savings of US$500,000 in the first year*

SAP IT: Happy DB2 Reference Customer

- Research and Development:
  - SAP adopted DB2 in early 2000
  - More than 800 Systems run DB2
  - Almost every major SAP product like ERP, CRM, SRM, … is either developed or undergoes its QA on DB2

- Business systems:
  - SAP IT adopted DB2 for business systems in 2002
  - CRM@SAP runs on DB2 / Solaris
  - HR@SAP runs on DB2 / HP-UX
  - All systems running on DB2

DB2 for SAP - Customers in Brazil

- VOTORANTIM
- ROSSI RESIDENCIAL
- OESP
- METAL LEVE – MAHLE
- SABO
- THERMOMECANICA
- HONDA
- REDECARD
- BRADESCO
- UNIBANCO
- ULTRAFERTIL
- DROGARIAS PACHECO

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SAP DB2 Customers on Linux, Unix and Windows

DB2/SAP Value Proposition Summary

- SAP's Strategic Database
  - Joint Product Roadmap; Joint Development & Support & Service
  - Certification speed - competitor takes years vs weeks
- Best Performing Database for SAP
  - DB2 leads key SAP benchmarks:
  - 20% faster than Oracle for R/3; 40% faster than Oracle for SAP BW
- Lowest TCO
  - Unmatched Disc Space Savings with DB2 Deep Compression
  - 40% savings vs. Oracle, 60 % savings vs Microsoft
  - HW Sizing Requirements with DB2
  - 30%-50% less I/O per second; 15-25% less Memory
  - 38% - 74% Price Advantage over Oracle
  - License & Maintenance via SAP OEM
  - 25%-30% less Administration Costs
  - Oracle has 14 times more patches
- ***Reduced Infrastructure and Administration Costs***
  - ***More budget availalable for implementation services and other projects***

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