





Single Vendor - Single Support – the Trend of IT Infrastructure Model

Daniel Ling

Senior Sales Specialist IBM Software Group, Hong Kong





Agenda

• IT Vendors Trend

- Better Integration
- Better Performance
- Better Support
- Better Pricing



Lotus



IBM recent software acquisition

Expanding Our P	latform	through	Acquisitions

Lotus

ONEstone

Empowering People

Aptrix PureEdge **BowStreet** Databeam

Net Integration Tech

Information on Demand

Language Analysis Systems (LAS)

Information Management

Informix

Ascential Alphablox

Venetica

CrossAccess Tarian

Solid Information Tech

Princeton Softech **iPhrase** Unicorn DWL

Green Pasture

SRD Trigo FileNet DataMirror Cognos

Service Management

Business Process Flexibility

Software Lifecycle Management

Tivoli

WebSphere

Rational

Cyanea TrelliSoft Collation **DBMX** CIMs Labs MRO Unison

Think Dynamics Micromuse Rembo **DORANA** Vallent Encentuate

Metamerge

Object Tech. Inter. **OpenOrders** CrossWorlds Holosofx Gluecode

WebDialogs

Ubique

Pathware

DataPower Webify **Aptsoft** InfoDyne

Rational Information Lab Systemcorp

Watchfire BuildForge Telelogic



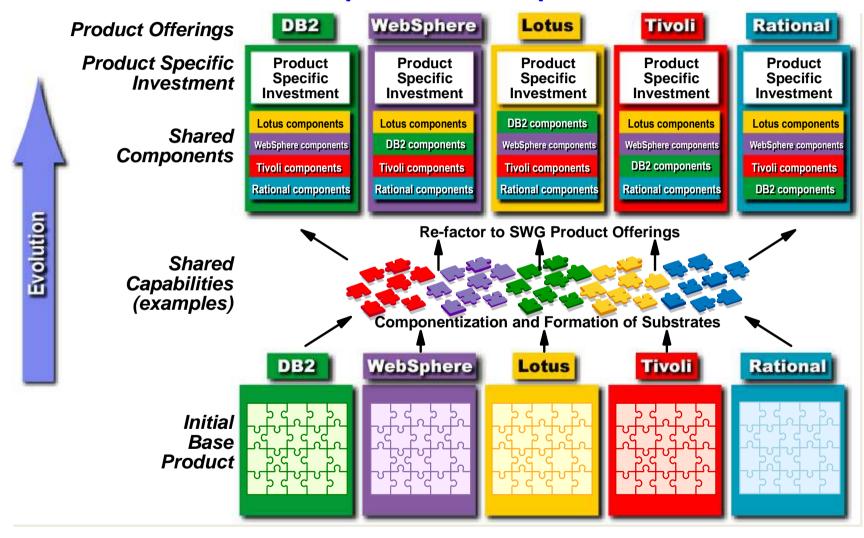
Biggest IT merger in 2009

Oracle acquire Sun



IBM Software Strategy

- Componentize to optimize





Better Integration



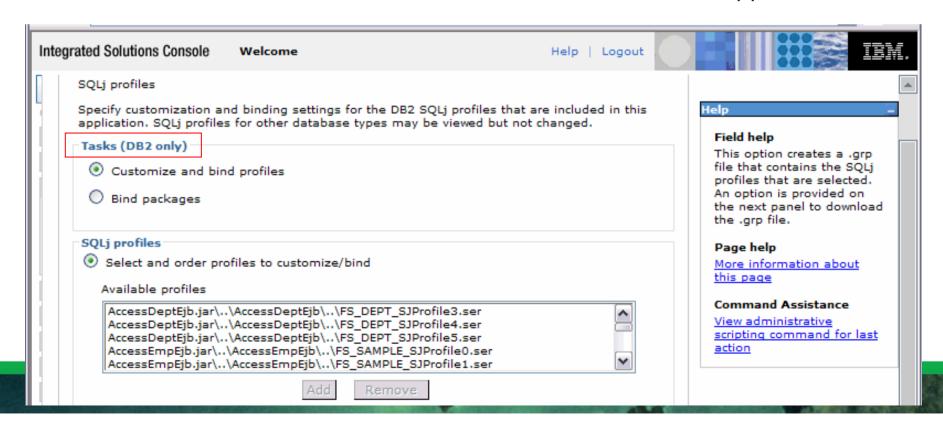
DB2 & Websphere

- Extended DB2 data source support
 - Heterogeneous pooling increase performance
 - Reduction in memory consumption on WebSphere Application Server side
 - Reduction in number of open connections to database which leads to memory reduction on database side
- SQLj deployment in WebSphere Application Server
- DB2 trusted context support Extended DB2 data source support
- PureQuery support in WebSphere Application Server
- DB2 client reroute enhancements in WebSphere Application Server
- Etc...



DB2 & Websphere

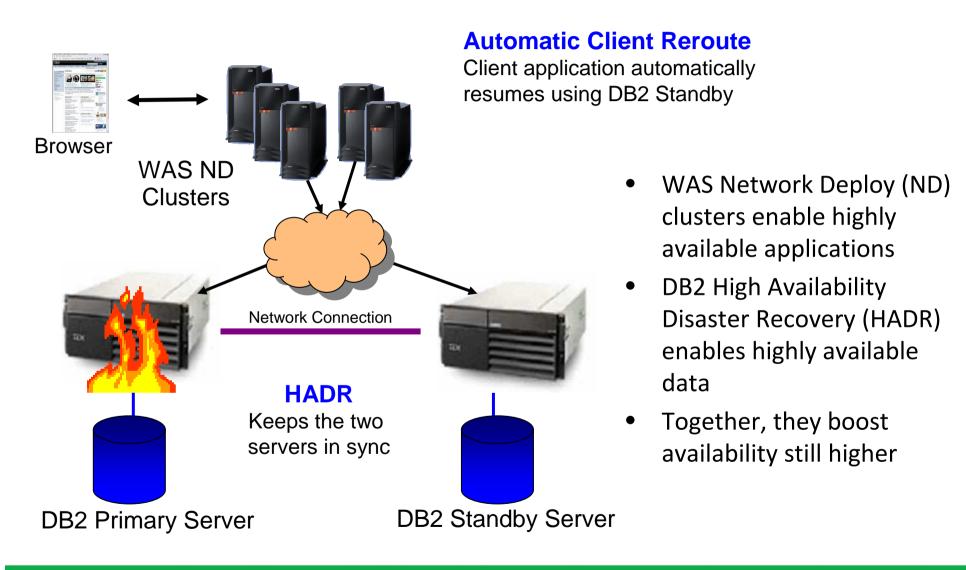
- SQLj deployment in WebSphere Application Server
 - Installation of SQLj applications from WebSphere Application Server administrative console.
 - Customization and binding of DB2 SQLj profiles from administrative console without the need to uninstall and reinstall applications







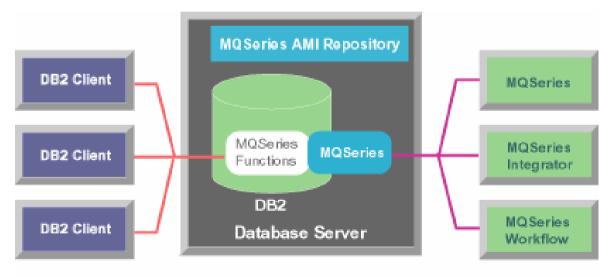
Easy to Implement High Availability





DB2 & IBM MQ

- Built in default function in DB2 and MQ for integration and calling each other
- Leverage for MQ for data replication across region
 - DB2 Q-Replication



Basic DB2/MQ Configuration

Information Management

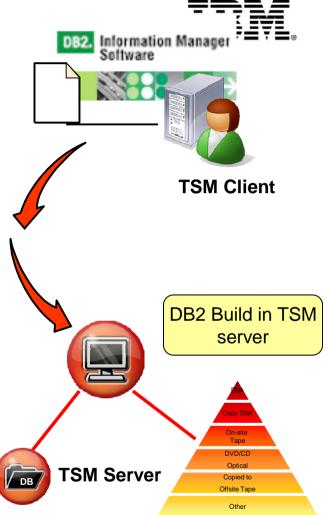
DB2 Online Backup with Tivoli Storage Manager

DB2 and Informix Online Backup

- Online backups for
 - IBM DB2,
 - ■IBM Informix 10 or later

Benefits

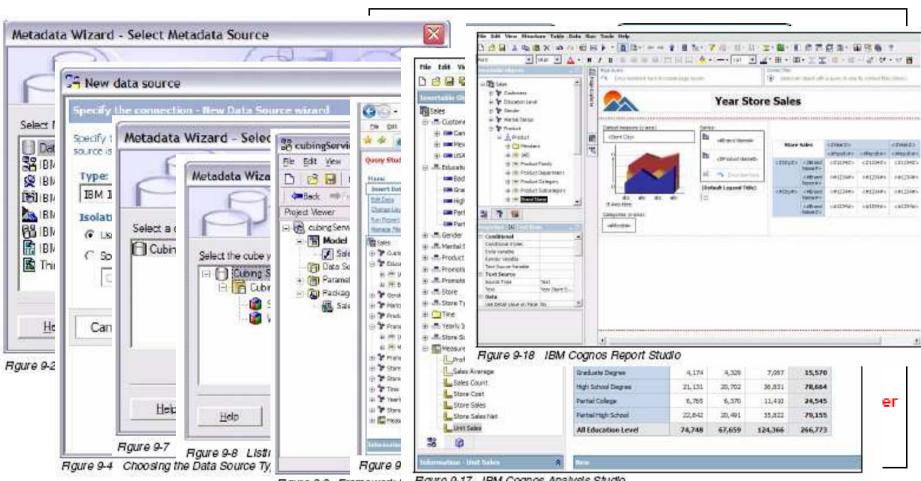
- √On-line protection of DB2 and Informix
- ✓Built-in support for IBM DB2
- ✓ No additional charge





Cognos awareness of DB2

IBM DB2 and IBM Cognos integration framework

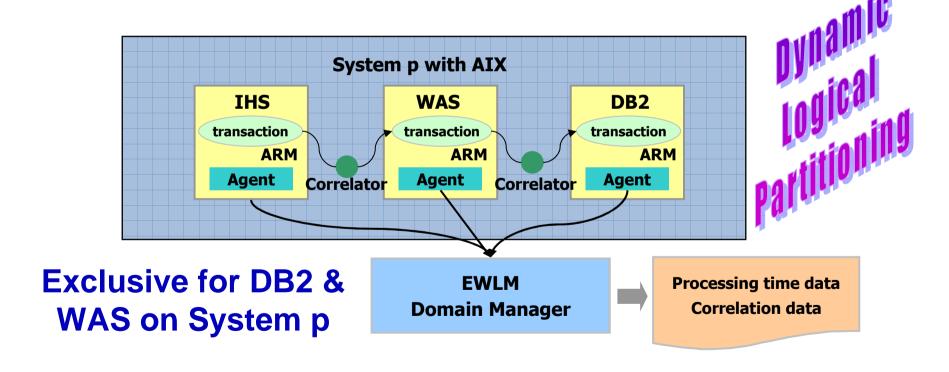


Rgure 9-9 Framework | Rgure 9-17 IBM Cognos Analysis Studio

Information Management

Optimize performance - Automatically

- DB2, WAS and AIX Enterprise Workload Manager (EWLM) synergy
 - Up to four times improvement in response time
- Virtualization automatically allocates work
- Application Response Measurement (ARM) <u>standard</u> provides the capability to measure the application response time





Advantage of DB2 with AIX



DB2 is already deeply integrated with AIX and Power Systems servers:

- Predictable Performance: There is deep integration between AIX workload management and the DB2 Workload Manager. DB2 and AIX share detailed monitoring information about the processes, resources and workloads executing in DB2 so that AIX may better assign resources and work priorities to key DB2 processes and I/O in order to maintain optimum system performance, meet service level agreements and maintain predictable performance.
- Dynamically Adapt: DB2 allows for the dynamic reconfiguration possible in Power Systems Logical Partitions so that DB2 can immediately and seamlessly take advantage of new processors, memory or I/O capability added to the LPAR. This allows system and database administrators to change the resources available to DB2 without disturbing the continuous operation of the database.
- Optimize Resources: DB2 uses the large (64K, 16MB and 16GB) page size support in AIX to efficiently use memory and disk resources and speed performance. DB2 also aligns key resource objects on byte boundaries that provide the fastest, most efficient access times.



Advantage of DB2 with AIX



- Security: DB2 takes advantage of AIX storage protection keys for security.
- Automated Recovery: DB2's recovery processes are integrated with Power Systems autonomic computing technologies.
- Problem Determination: DB2 integrates with the First Failure Data Capture facilities of Power Systems and AIX. DB2 updates the FFDC system with information about its ongoing operations so that, in case of a failure within the system, engineers and administrators have information about the state of the database and system at the time of the failure and do not have to recreate a problem in order to diagnose it.



Better Performance





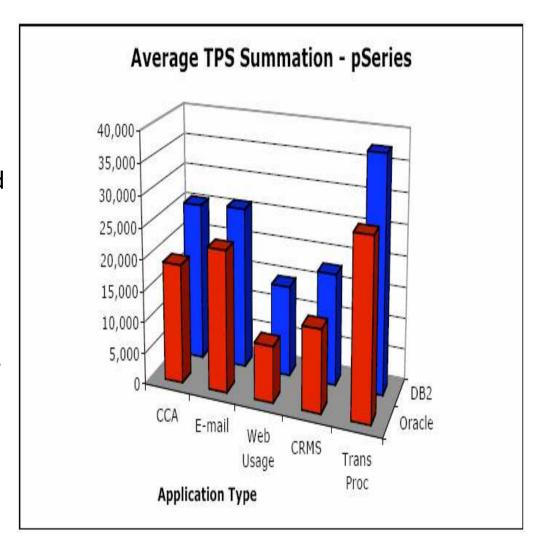
DB2 on both AIX & IBM xSeries (intel server)

- Solitaire Interglobal (SLI) research 2008 :
 - In this study, 250 benchmark evaluation efforts were tracked against the number of unique combinations of system activities that occurred within 18 calendar months.
 - For the purposes of this investigation, over 650 AIX® and 3,450 Intel based production systems were observed, recorded and analyzed to substantiate the findings.



DB2 on IBM AIX

- The most critical factor in the transaction efficiency appears to depend on two factors : memory handling and buffering
- DB2 on IBM System P improved performance with a synergistic alignment of memory handling optimizations in both DBMS and hardware.
- The improved efficiency of the DB2 product on the System p is higher than the other, ranging from 15.1% through 37.0% on the transaction-based metrics and averaging 58.6% better on the query based metric.

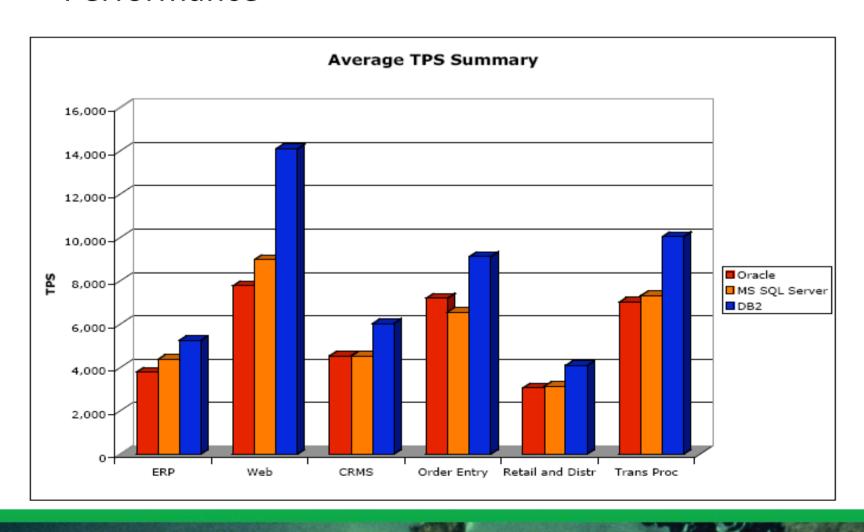






DB2 on IBM xServer (Intel)

Performance

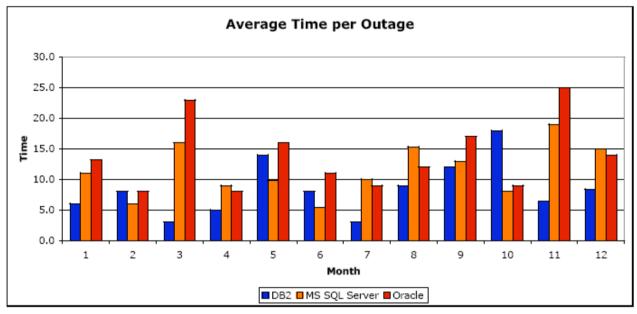




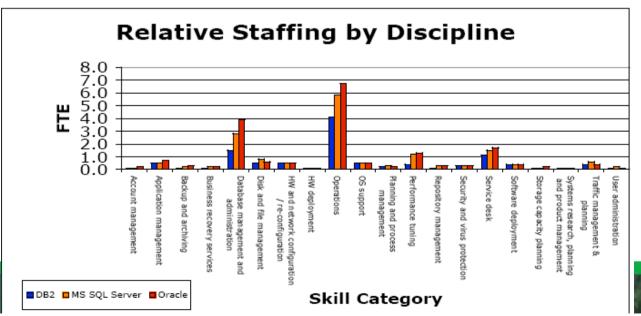
DB2 on IBM xServer (Intel)



Reliability



Staffing





Conclusion



- **IBM System x** (Intel server) shows a smaller, but still definitive, advantage with the DB2 product over Oracle and MS SQL Server, contributing hardware characteristics are the breadth of the **I/O channel** on the System x and the efficiency of the **memory algorithms**.
- This is most achievable when a good fit between the DBMS and hardware platform is employed. Allowing the strengths of the System x and System p platforms to mingle with the strengths of the DB2 product is one of the best ways to support the customer in their continuing quest for lower costs and improved user satisfaction



Better Support



SWG Federated Integration Test

Enhance the consumability of SWG products to improve customer satisfaction and confidence in IBM Solutions by performing selected Customer-based scenario definition, architecture, development and testing.

Identify and drive pervasive cross-SWG themes and recommendations

Report and drive Major
Customer pain points
and defects/PMRs

Raleigh

Deliver value-add collateral based on solution test experiences

Information Management

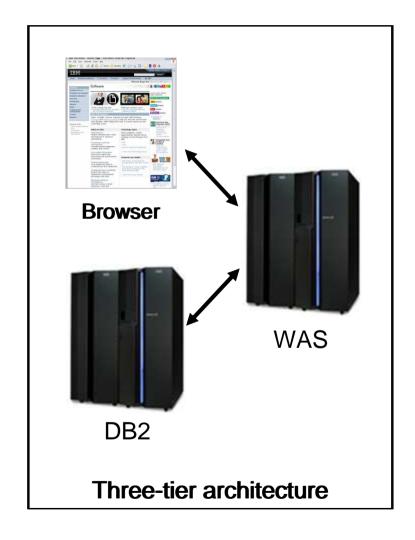


Integrated Problem Determination and Monitoring

- IBM Support Assistant (ISA)
 - No charge serviceability workbench
 - -Supports over 150 IBM offerings
 - —Troubleshooting/diagnostic tools
 - Search for an answer to your question or problem
 - Access critical product information
 - Shortens time to resolve problems with automated data gathering and submission
- End-to-end tracing, connection identification, workload correlation and monitoring

DB2 & WAS & HW

exclusive all in one local support





Better Pricing





IBM Passport Advantage

- IBM Software discounts based on total software orders to IBM
 - Including maintenance renewals
- Discounts apply to new licenses and maintenance renewals
- Product pricing :

 Oracle Standard Edition per 	socket (inc. MA)	US 21,350
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- MSSQL Enterprise Edition per socket
 US 24,999
- DB2 Workgroup Edition per socket (inc. MA)
 US 15,000



Summary

- DB2 with IBM Software and Hardware can provide:
- Better Integration
- Better Performance
- Better Support
- Better Pricing





IBM Information On Demand Conference 2009

Thank You!

