

Information Management



IBM Information On Demand Conference 2009

Lowering the Costs with New IBM DB2 9.7

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Facing the Challenges of Economic Uncertainty

Economic Uncertainty



Do you need to:

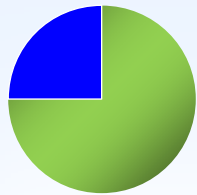
- do more with less?
- cut costs and reduce risks?
- increase revenues and productivity?
- be smarter about getting more value from my investments

"...a period of discontinuity is, for those with courage and vision, a period of opportunity. Over the next couple of years, there will be winners, and there will be losers. And though it may not be easy to see now, I believe we will see new leaders emerge who win not by surviving the storm, but by changing the game."

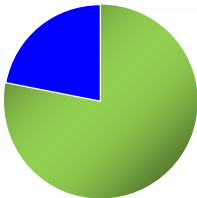
- Sam Palmisano, IBM, November 6, 2008

Data Management Drives Competitive Advantages

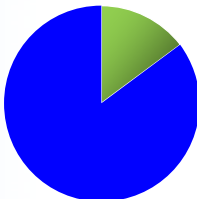
Survey: CIO's want to strengthen competitive advantage by better managing enterprise data



75% of CIO's believe they can strengthen their competitive advantage by better using and managing enterprise data.



78% of CIO's want to improve the way they use and manage their data.



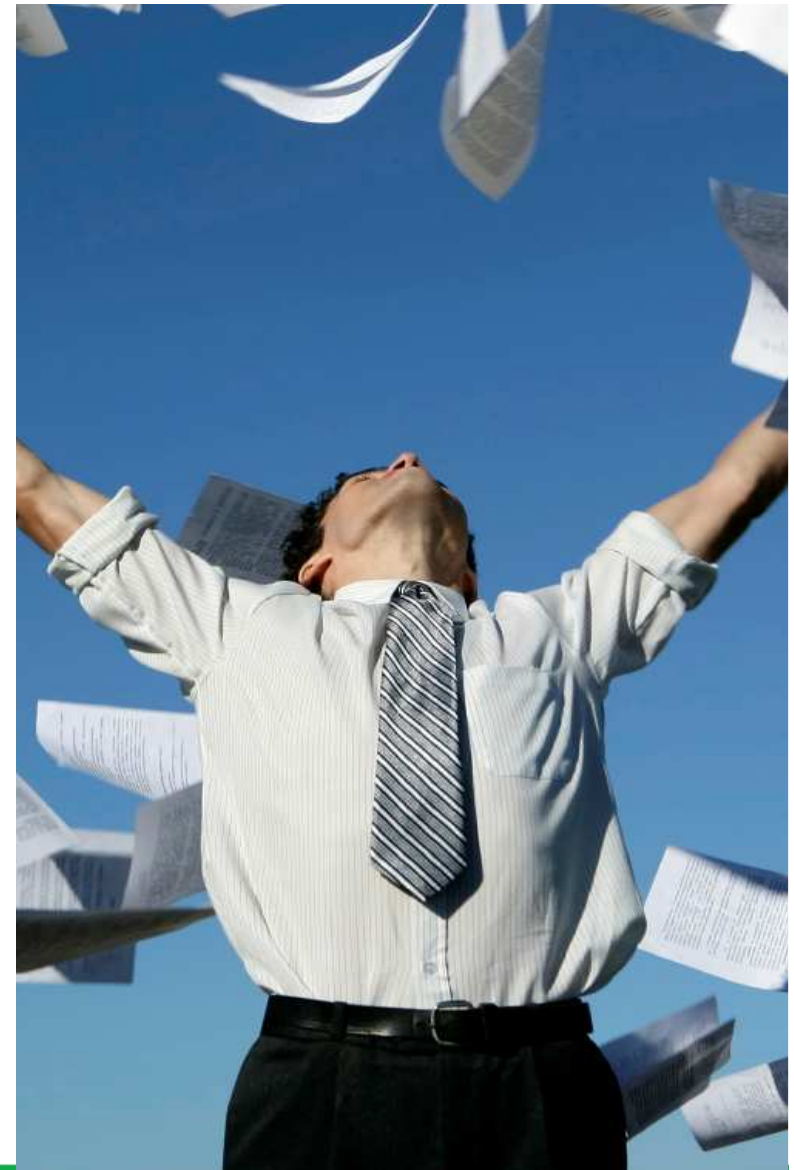
...but **only 15%** believe that their data is currently comprehensively well managed.

Source: Accenture CIO Data Management Survey
2007. n=167 CIOs

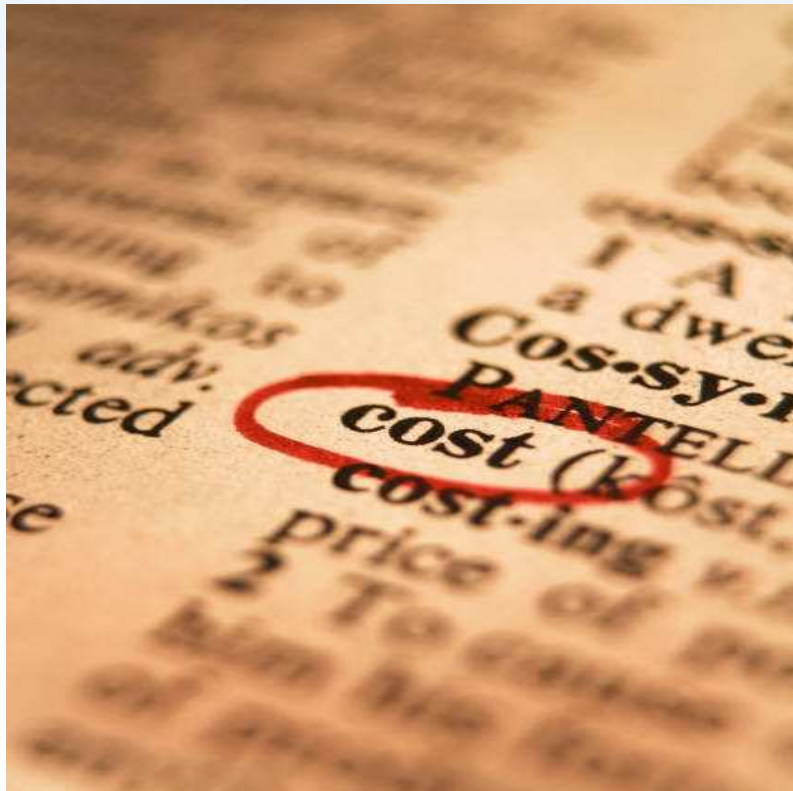
Agenda

- What Are Your Top Challenges Today?

- How IBM Can Help:
 - Optimize Data Management Infrastructure
 - Empower Your DBAs & Unleash Developer Productivity



Optimized Infrastructure: Reduce Operational Costs



- Deep Compression
→ Lower IT costs
- Security the Way You Want
→ Lower IT costs

Tip: Go Green with Storage Optimization

Addressing your storage and power consumption concerns:

DB2 9 Compression can help:

- **Cut storage costs in half**
- **Boost performance**
- **Speed backup and recovery**

Global spending on the data center power and cooling in 2007 was roughly equivalent to spending on servers



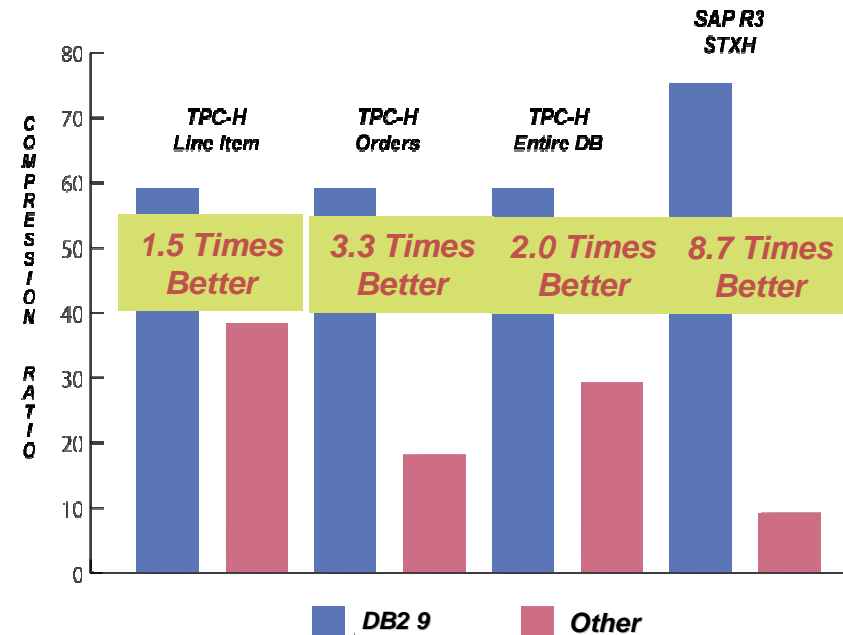
...With more industry unique compression features in DB2 9.7

Our database is now **43% smaller** than before, and some of the largest tables have been reduced by up to 70%. Despite the compression, there has been **no impact on batch performance**, and our most important online transactions are actually **20% faster** with the new version of DB2.“

—Roland Heim, INTER Versicherungen

Squeezing storage costs with compression

- Further storage savings with
 - Index compression
 - Temp space compression
 - XML compression
 - Replication support for compression
- Also save in Memory, CPU, & License

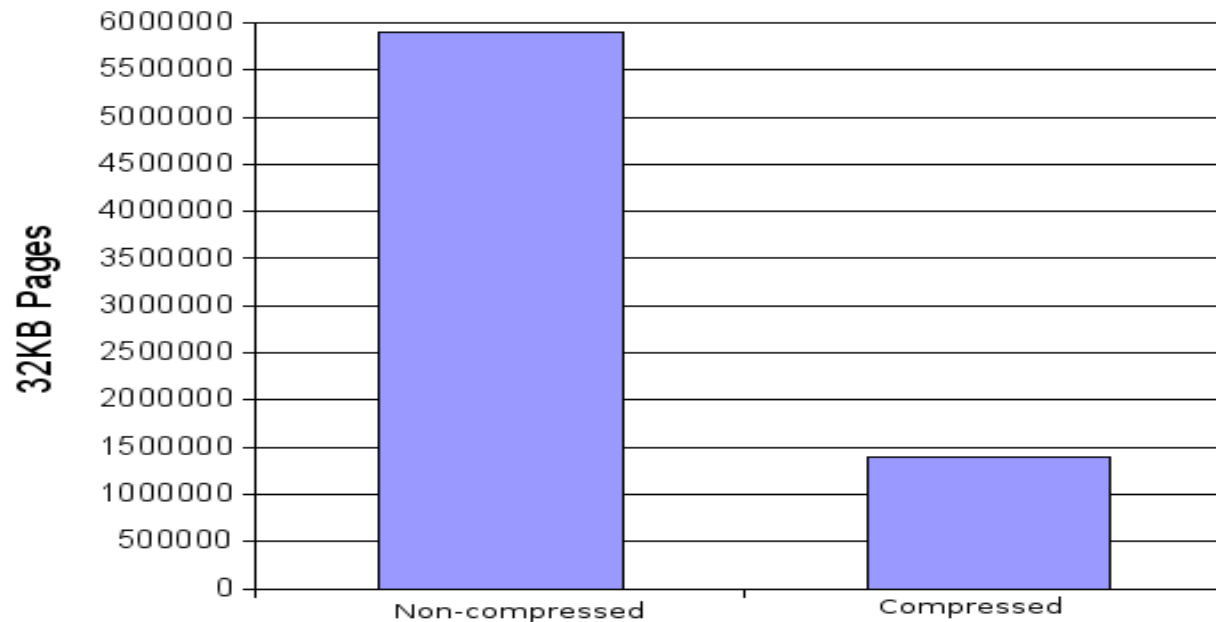


Compression Ratios (Customer Data Sample)

<u>Compression Type</u>	<u>32KB Page Count</u>	<u>Space Required on Disk</u>
No compression	5893888	179.9GB
Row compression	1392446	42.5GB

% Pages Saved: 76.4%

T1 Compression - 179.9GB Initial Size



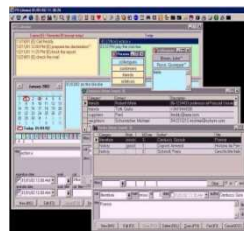
Tip: Manage Costs by Reducing Risk with Database Security and Monitoring

- ❑ 44% of IT staff cited authorized access as key security challenge
- ❑ Top challenge for 43% of CFOs is governance, controls, and risk management

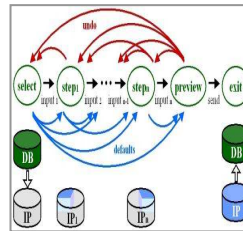
DB2 9.7 will help you know...



Who



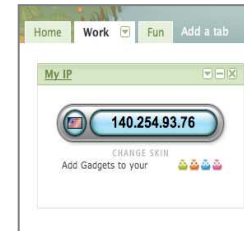
What



Where



When



How



Why



“IBM is a definite leader in heterogeneous data integration...”
—Naomi Rafael, Melbourne Health

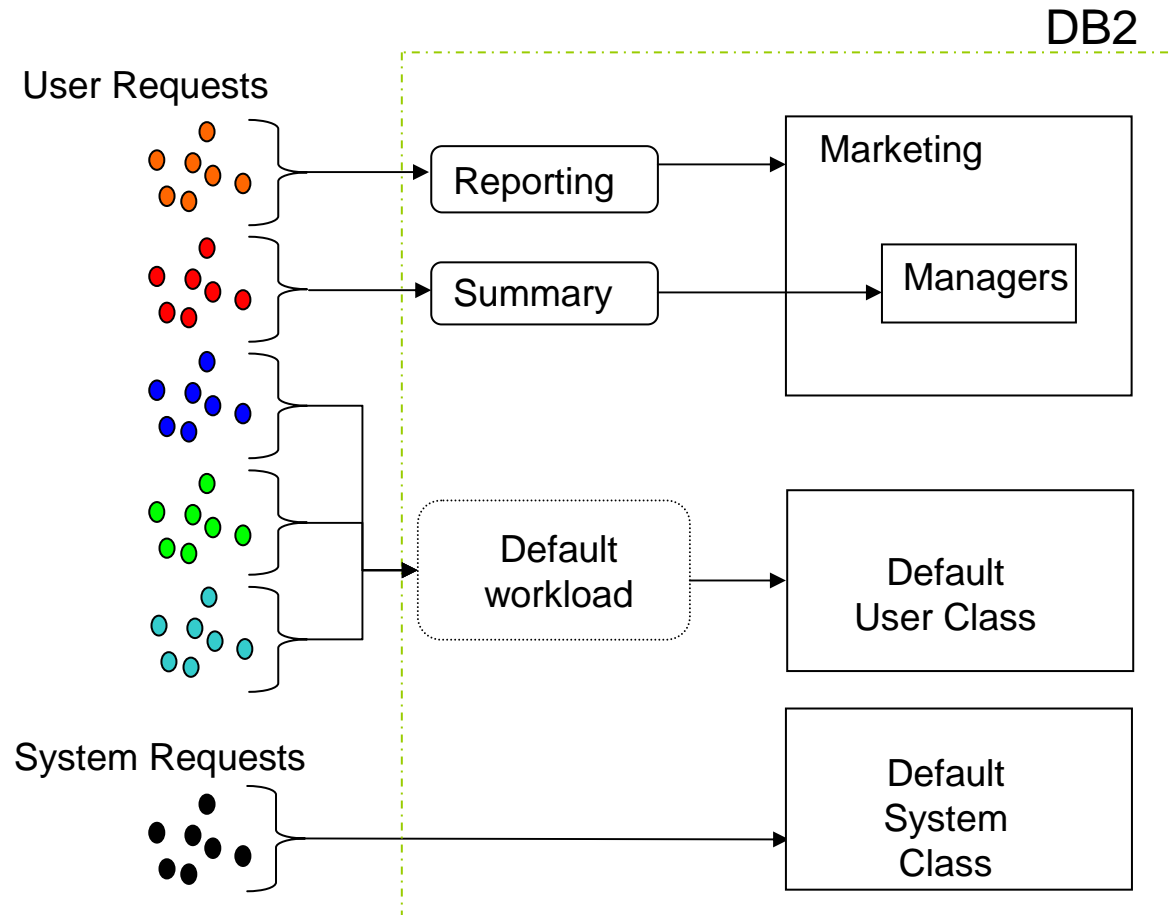
Minimize the risk of data exposure

- Separation of DBADM and SECADM (New in v9.7)
 - Centralize the security management to single role (like row/column security policy)
 - To design and apply the audit policy
 - Remove the capability to grant and revoke the DBADM and SECADM authorities from the SYSADM authority and vest it in SECADM

Minimize the risk of data exposure

- Introduce of the following new roles
 - WLMADM
 - Manages WLM objects
 - No need to grant users DBADM to manage WLM objects
 - SQLADM
 - Responsible for SQL tuning
 - No need to grant users DBADM to perform SQL tuning
 - EXPLAIN
 - Grants the ability to explain and prepare SQL statements
 - No need to grant users actual privileges on base tables

Enhancement in Workload Management

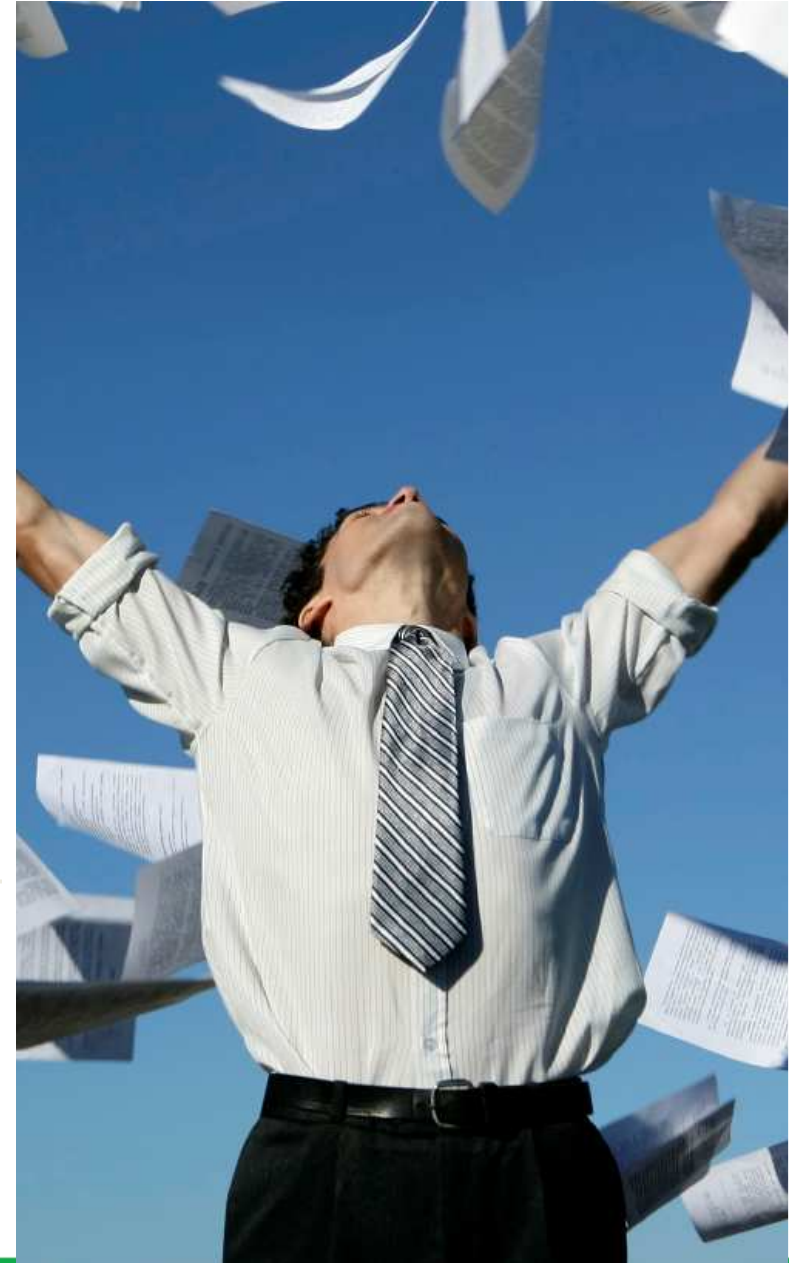


Enhancement in Workload Management

- Introduce new control and monitoring capabilities into engine with minimal overhead in v9.5
- Provides workload management before and after the submission of workloads base on
 - user/user group
 - estimated cost (filter the workload before submission to engine)
 - CPU usage (filter the workload after submission to engine)
 - database resources usage (new in v9.7)
 - table access behavior (new in v9.7)
 -
- “Live” access to detailed information about the execution environment

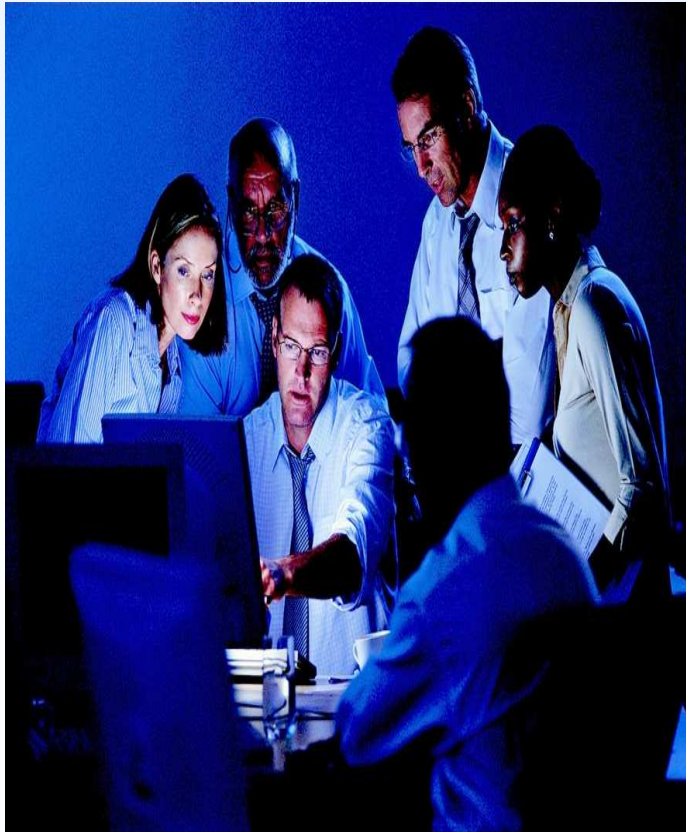
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Performance Improvement Strategies

Empower Your DBAs and Unleash Developer Productivity



XML Insights

→ Easier XML projects

Database Automation

→ Reduce daily admin effort

Easy High Availability

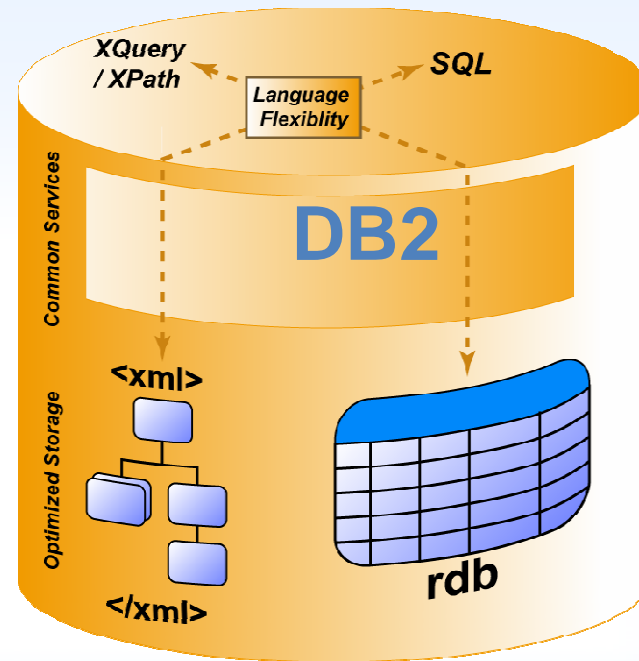
→ Set up in minutes, recover in Secs

Database compatibility features

→ Reduce development Effort

DB2 9.7 Offers Industry-Leading Transactional Performance for XML Data

- **Easy development and integration**
- **Efficient storage**
- **Untouchable performance**



“With [DB2’s] ability to process pureXML, our customers are seeing 5 to 10 times performance improvements.” —Keith Feingold, CEO, Skytide

Tips: Fully utilize the DB2 feature with XML

- **Maximize resources with end-to-end XML document support in partitioning environment (v9.7)**
- **Greater storage savings and better performance with the DB2 9 deep compression (v9.7)**



“The new release of DB2 is outstanding for its data warehousing functionality...”

—*Jean-Marc Blaise, Venedim*

“The parallelization of queries and inserts of the XML data will allow our researchers to gain access to the data they require even faster...”

—*Tom Holdener, BJC HealthCare*

Tips: Improve DBA Efficiency with DB2 Automation



It's hard to believe, but we only have 3 DBAs supporting over 100 instances of DB2.”

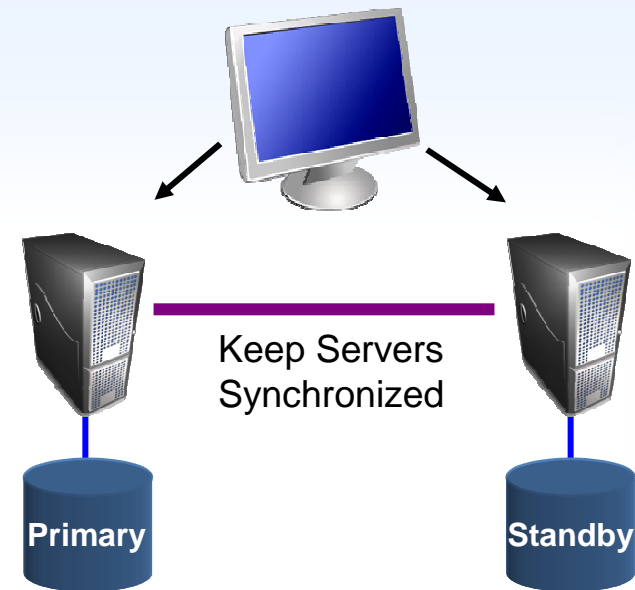
—*Phil Kilgore, Director of Technical Services*

- DB2 9.7 enables DBAs can break free from database limitations which hinder their responsiveness with these DB2 9 enhancements:
 - Change database schemas without downtime
 - Automatic daily task like statistic collection, table or index re-organization
 - One button memory tuning
 - One button storage management



Tip: Improve DBA Productivity: Robust Operation with High Availability

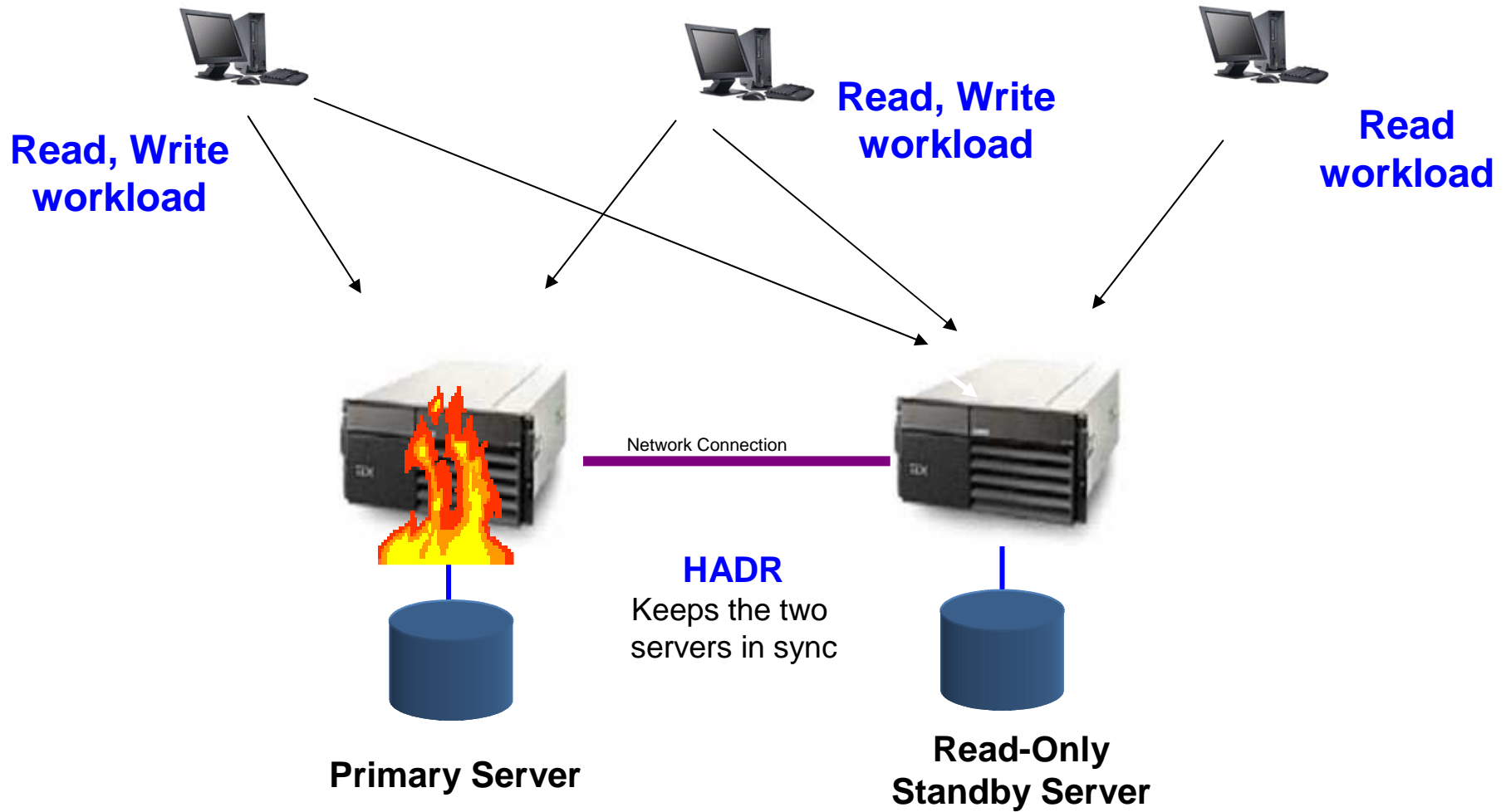
- **Ultra-fast (seconds)**
- **Manage planned and unplanned outages**
- **Easy to Implement**



“One of the major advantages of DB2 is that we get a disaster recovery solution for our SAP system with HADR at no extra cost.”

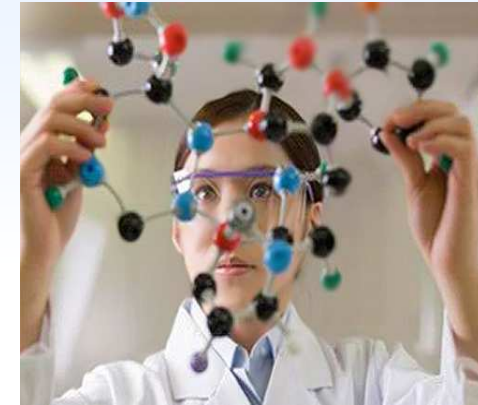
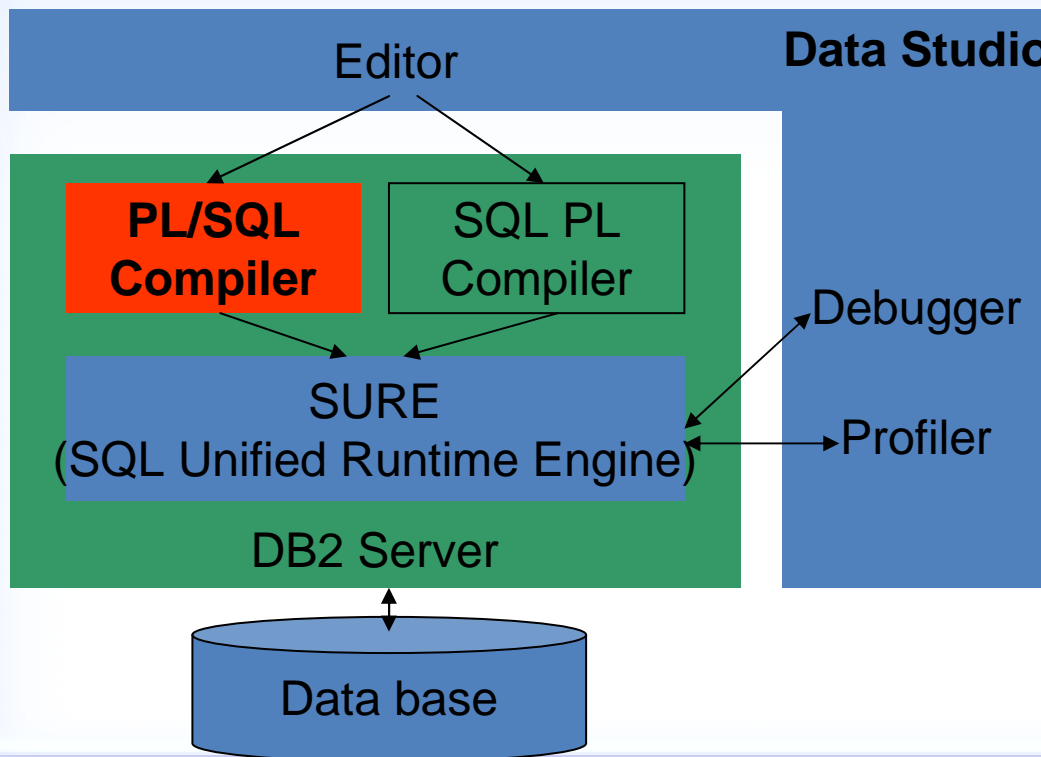
—Gustav Elias, Austrian Railways

Read on Standby in v9.7



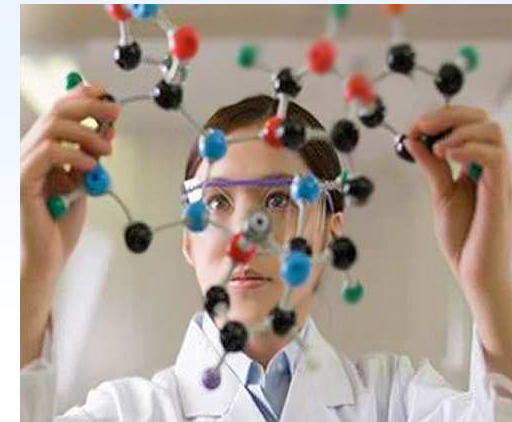
Tips: v9.7 Compatibility feature to reduce application development effort

I. PL/SQL support in the same DB2 engine



Tips: v9.7 Compatibility feature to reduce application development effort

2. Concurrency control implementation to reduce development effort



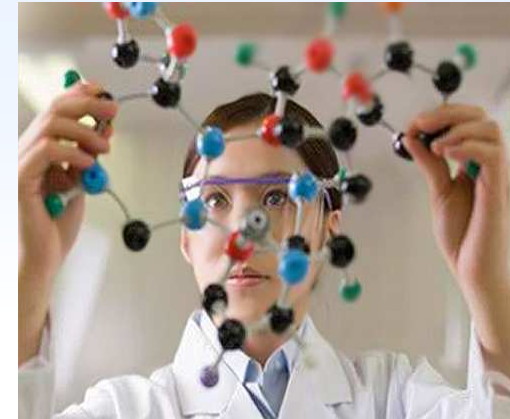
	Blocks ->	Reader	Writer
DB2 Pre-v9.7 CS Isolation	Reader	No	Maybe
	Writer	Yes	Yes

	Blocks ->	Reader	Writer
DB2 v9.7 CS Isolation w/CC	Reader	No	No
	Writer	No	Yes



Tips: Cobra Compatibility feature to reduce application development effort

3. And other compatibility features like data type conversion all can be enable by a single parameter.....





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Thank You!