



IBM Software Group

DB2 UDB v8.2

— 功能强大的统一信息平台

DB2 Information Management Software



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IBM Software Group | DB2 Information Management Software



DB2 信息管理

DB2 Information Management Software

enables "*Insight on demand*" by providing the open **information infrastructure** needed for integrating vast amounts of information (application data, images, e-mail, voice, music, etc.) to deliver greater business insight and value.

信息集成 - IBM provides the next generation of information integration software enabling companies to have integrated, real time access to diverse and distributed information.

- DB2 Information Integrator
- DB2 Information Integrator for Content
- DB2 Data Propagator
- IBM DiscoveryLink

IBM is the #1 database vendor in world... saving customers money and time by providing the best technology, best performance, best support and lowest total cost of ownership in the industry.

企业内容管理

IBM is the #1 vendor for content and document management software, providing all the necessary pieces for a scalable content management solution.

- DB2 Content Manager
- DB2 CommonStore
- DB2 Content Manager OnDemand
- DB2 Records Manager

商业智能

IBM delivers the world's best data warehouse and analytics platform for your business intelligence solutions.

- DB2 Data Warehouse Edition
- DB2 Cube Views
- DB2 Intelligent Miner
- DB2 OLAP Server

- DB2 Universal Database
- IBM Informix
- IMS

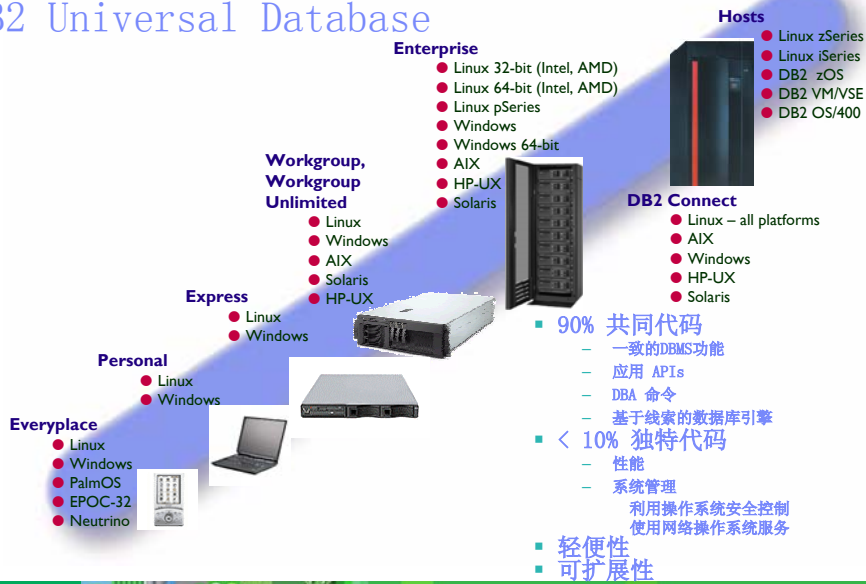
Database Servers

集成, 开放, 伸缩, 多平台, 安全, 强壮...

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DB2 Universal Database



DB2 UDB V8.2



- 生产力增强，降低成本并加速价值提供
 - 显著的增强程序员生产力
 - 部署/管理成本降低
 - 自动的 24 x 7 可用性
 - 新的应用增强
- 提供IBM DB2信息管理解决方案的技术基础
 - 商业智能
 - 内容管理
 - 信息集成
 - ISV应用...



DB2 UDB V8.2: 200多个增强

降低部署和管理成本

- 自主计算
 - 设计顾问 (Design Advisor)
 - 自主调整备份和恢复
 - 自动的对象维护

65% Reduction in Administration



提供强健的基础设施

- 性能、伸缩性、可用性、安全
 - 高可用灾难恢复
 - 自动的客户端重路由

Leading Benchmarks:
8, 16, 32 Way TPC-C*
Leading TPC-H*
SAP & PeopleSoft...



增强开发人员生产力

- Microsoft .NET集成
- Java/J2EE/Eclipse增强
- SQL增强

6.5 X Faster Designs using Design Advisor



扩展信息的价值

- 复制增强
- Geodetic Extender

Autonomic Recovery 3X Faster than Oracle



* As of 3/3/05; tpmC, TPC-H, TPC-C are registered trademarks of the Transaction Processing Council. For details see www.tpc.org



.NET 增强

DB2 AD Plug-ins for MSFT Visual Studio .Net



The screenshot displays the Visual Studio .NET environment with several components highlighted by yellow callouts:

- Toolbox**: Located on the left side of the IDE.
- IBM Explorer**: A tree view on the left showing database objects like Tables, Views, and Procedures.
- Intellisense**: A tooltip showing code completion suggestions in the SQL Editor.
- SQL Editor**: The central window containing SQL code for connecting to a DB2 database and executing a query.
- DB2 Projects**: A tree view on the right showing the project structure.
- Dynamic Help**: A window on the right providing context-sensitive help for the current code.
- Properties**: A window on the right showing the properties of the selected object.
- DB2 Output Message Pane**: A window at the bottom showing the output of the SQL execution, including the message "Successfully retrieved details from database".



Java增强

DB2 AD Plug-ins for Eclipse IDE

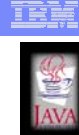
Data Perspective

SQL Keyword Colorization

DB2 Connections

Execution output

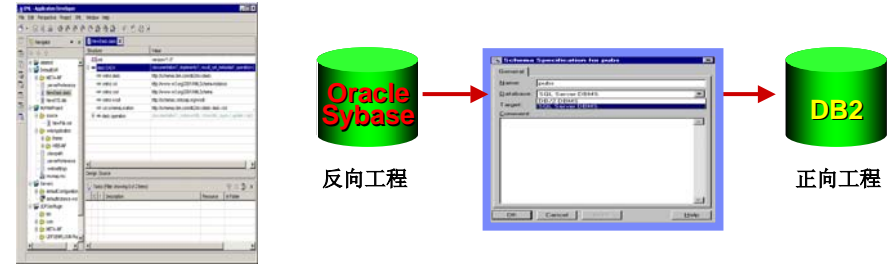
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Java增强

Rational XDE Developer for Java

- 利用Rational的建模和设计环境
 - 先进的可视化数据库建模和设计
- DB2 AD plug-ins for IBM Rational XDE Developer for Java
 - IDE built on Eclipse
- 为Eclipse开发人员提供完整的端到端工具方案



自主管理

DB2 Design Advisor

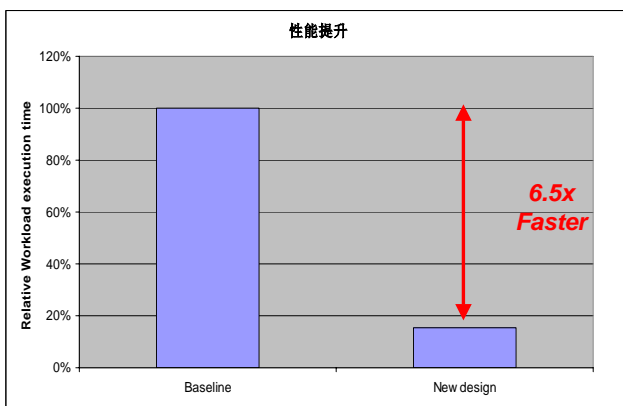


- 提供专家建议：
 - 基表的索引
 - 物化查询表 (MQT)
 - 物化查询表的索引
 - 将非多维聚簇索引 (MDC) 表转换为MDC表
 - 用新的分区键重新分区现有的表
- 基于：
 - 工作负载 (用户提供或系统发现)
 - 系统检测的数据库特性
 - 系统检测的系统特性
 - 磁盘限制 (可选)
- 选项和控制：
 - 可以显示、编辑或保存新的建议



自主管理

DB2 Design Advisor



DB2 Design Advisor

提供的建议汇总：

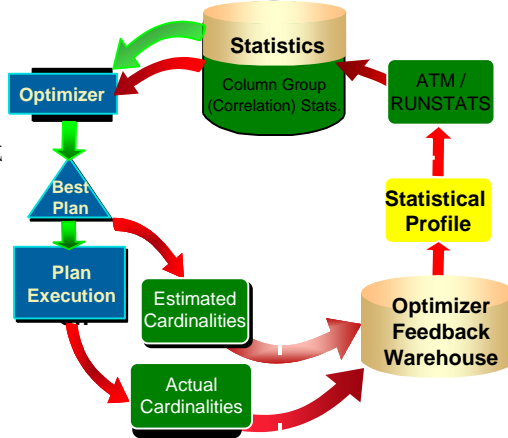
- 20个新的索引
- 6个新的MDC维度
- 4个新的分区键
- 2个新的MQT



自主管理 自动的统计信息收集

自动收集统计信息 (Runstats) 帮助优化的性能

- 不需要手工执行RUNSTATS
- 透明、安静的执行
在线, 限制的 (Throttled)
- 完全自动
业界领先的检测机制, 被动和主动式
- 判断:
需要哪些统计信息?
字段组
相关性发现
反馈学习



自学习优化 (LEO) 技术的首次实现



自主管理 自动对象维护

- 备份
- 表重组
- 统计信息收集
- 可订制
- 对用户完全透明
- 和监测中心集成



Status as of: **4/14/04 7:34 AM** [Refresh](#)

DBM State: **Started** [Stop](#)

Last Backup: **4/13/04 9:00 AM** [Backup Database](#)

Size: **19 MB** [Manage Storage](#)

Capacity: **5316 MB**

Health: **Normal** [Monitor DB Health](#)

Maintenance: **Fully automated** [Maintenance](#)

Online maintenance window

Online automatic maintenance can occur during the following window

Time	00:00 - 05:00 (5 hours)
Days of the week	All
Days of the month	All
Activities using this window	Backup database (BACKUP), Optimize data access (RUNSTATS)

[Change...](#)

10:00
11:00
12:00
1:00
2:00



自主管理

控制中心支持throttle工具



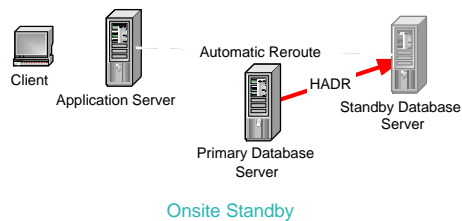
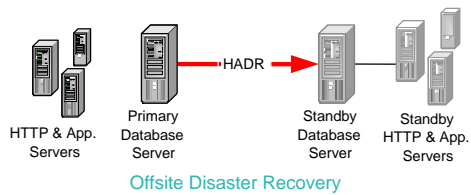
- DBA可以降低资源密集型工具运行时对业务操作工作负载的影响
 - Backup, Rebalance, Runstats
- 设置和显示工具执行的优先级:
 - backup, rebalance (and reorg, load, and runstats)
 - support new option to set priority in utility dialogs
 - support new option to set priority in SHOW COMMAND
- 显示正在执行的工具的优先级, 以及当前会话的优先级



强健的基础设施

高可用灾难恢复 (HADR)

- 挑战
 - 24 x 7 可用性
- 解决方案
 - 远程灾难备份
 - 现场备用
不中断工作进行维护



强健的基础设施

HADR配置向导使它更容易

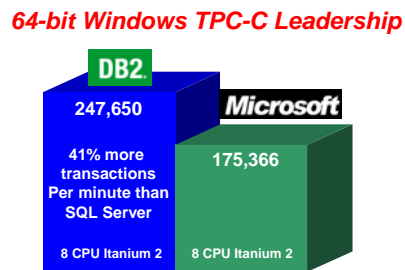
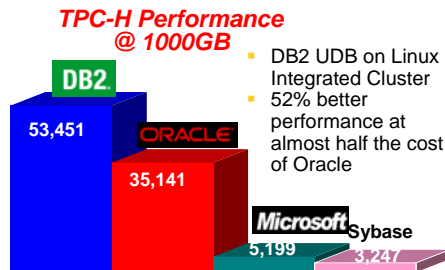
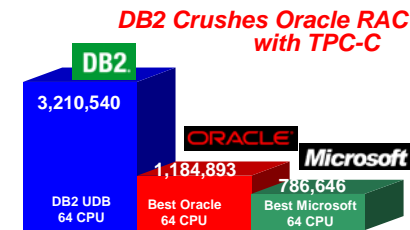
- 帮助设置主从数据库
- 指导用户执行以下工作：
 - Identify the HADR pair
 - Prepare the primary database for log shipping
 - Perform database backup
 - Copy backup image to secondary server
 - Perform restore on the selected standby database
 - Move any database objects not included in the backup image
 - Update service files
 - Update HADR related configuration parameters on both databases
 - Provide an option to Start HADR



DB2 UDB性能领先

各种平台，各种工作负载

- DB2 'Triple Crown' - DB2 once again leads overall benchmark results for:
 - TPC-C
 - TPC-H
 - SAP SD 3-tier

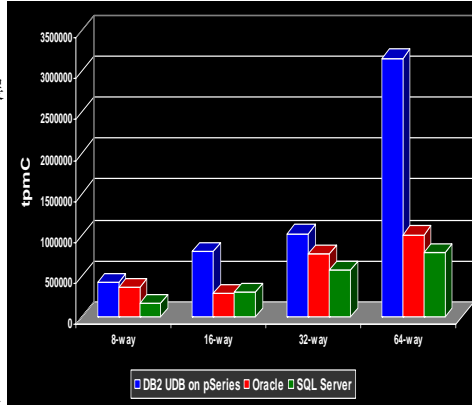


Transaction Processing Performance Council. See respective ISV websites for ISV Benchmark information. The latest DB2 performance benchmarks are available at <http://www.ibm.com/software/data/highlights/tpcc.html>



DB2 UDB 8.2 on POWER5

- 性能表现遥遥领先 (TPC-C的世界纪录由DB2与pSeries共同创造)
- 彻底开发了 p5-595 and AIX 5.3的出众性能
 - 性能在64路处理器上可实现线性扩展
 - 专门对Power5处理器进行了多线程(SMT)优化
 - 可扩展到128个逻辑处理器
 - 对2TB主存的访问方式进行了优化
- 更优越的总体拥有成本(TCO)
 - 保持着tpmC/processor与tpmC/单processor价格的世界纪录
 - 代表着更低的获得成本
 - 自主计算的技术领导者
 - Design Advisor可以优化物理数据库的设计
 - 数据库自主维护和自主诊断技术



扩展价值

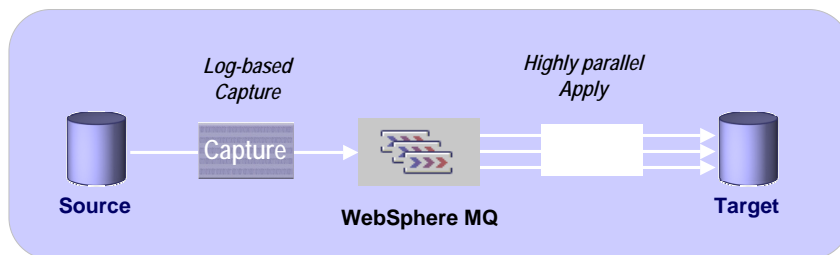
降低DB2数据复制的延迟

功能

- 每个消息代表一个交易
- Apply模拟交易环境
- 冲突检测和解决
- 向导驱动的配置

用途

- 高可用
- 工作负载分布
- 应用整合





扩展价值

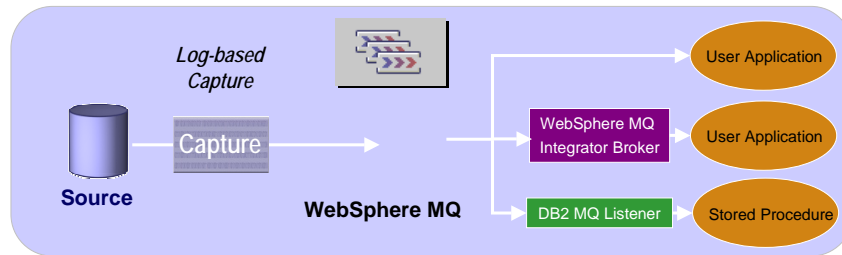
DB2事件发布

功能

- 将DB2事件发布到消息队列
- XML格式
- 向导驱动的配置

用途

- 应用到应用的消息
- 事件流
- ETL源



DB2 UDB 投资策略

- 最低的总拥有成本 (TCO)
 - 提高应用开发生产率
 - 降低部署和管理成本
 - 基于工业标准的开放性
 - 与IBM中间件的无缝集成
- 创新技术的领导者
 - 强壮的按需应变的信息基础架构
 - 适应各种压力环境
 - 对各种数字信息的访问能力
 - 丰富而实用的功能扩充
- 稳定的合作伙伴关系
 - 丰富的业务应用
 - 扎实的技术实力
- 贴心的支持和服务





Thank
YOU

<http://www.ibm.com/software/data/db2>