

Promote a comprehensive and proactive approach for managing application database performance.



IBM **Information Management** software

IBM DB2 Performance Expert and DB2 Performance Expert Extended Insight Feature for Linux, UNIX and Windows

Highlights

- ***Detect and resolve performance issues quickly before they impact production systems***
- ***Apply optimization and tuning recommendations to improve performance and meet SLAs***
- ***Analyze trends across the performance warehouse for growth planning***
- ***Support online transaction processing, warehousing and enterprise content management***
- ***Reduce time from days to minutes for isolating Java performance issues***
- ***Deliver end-to-end database monitoring for Java database applications***

Application performance affects your business

Delivering applications that perform to meet client expectations and superior service level standards is becoming more challenging. Increasingly diverse workloads contend for limited system and database resources. Growing data volumes negatively impact application performance.

Often application developers do not understand how to optimize database performance, which can lead to poorly structured or poorly performing queries. To complicate matters, the inability to accurately pinpoint the causes of performance issues may mean that problems are not resolved quickly enough to prevent a negative impact on production workloads.

As a result, performance issues can have a negative impact on daily business operations. Service level objectives are missed; business users experience unanticipated application and database outages. Customer

satisfaction declines and revenue opportunities are lost.

Effective performance management requires deep visibility, both into and across the application stack. Too often organizations rely on a wide variety of disparate, heterogeneous diagnostic tools. DBAs need the capability to set thresholds that accurately reflect and support service level agreements. However, available performance metrics often fall far short of providing a realistic approximation of the user experience.

And as problems arise, the collaboration among DBAs, network administrators, systems administrators and developers becomes less effective because there is no coherent view of performance across the stack. Organizations can waste days of effort collecting and correlating diagnostic information from various tools before a problem can be isolated to the right system component.

Proactively optimize DB2 performance and availability

Organizations must find a better, faster way to avoid performance management pitfalls and prevent a negative impact the business. Time lost to sluggish application performance or unavailable applications can be costly.

To help improve application database performance and availability, organizations need more. IT teams should consider implementing a performance management solution that combines cross-stack visibility with database monitoring that reflects the end-user experience and deep database analysis and performance recommendations to help meet SLAs and plan for future growth.

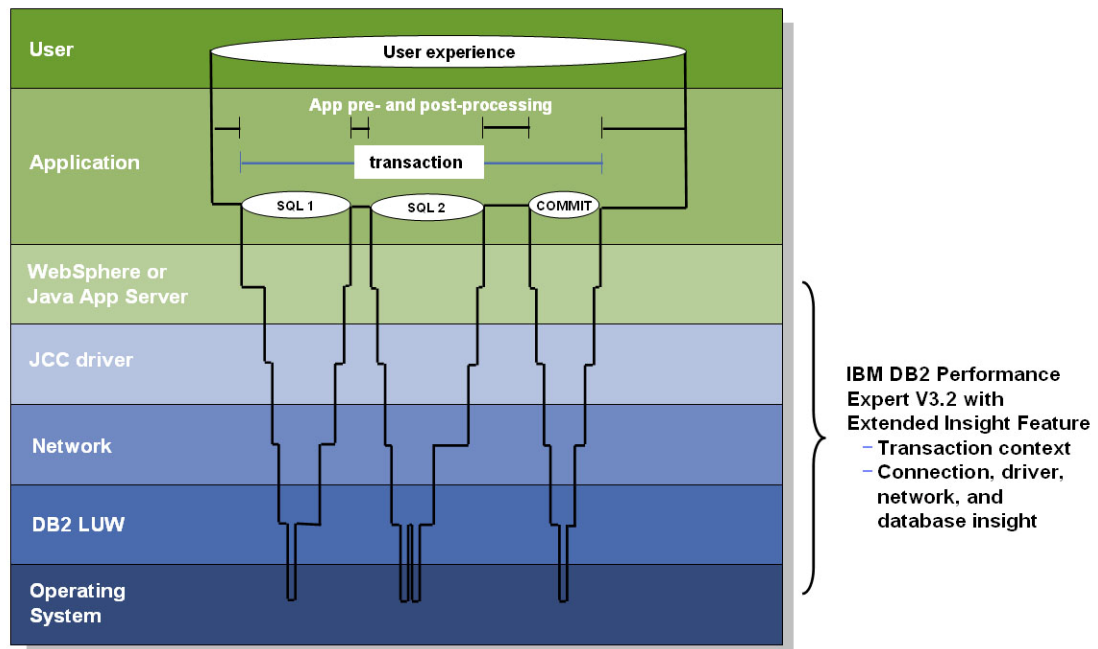
The IBM® DB2® Performance Expert for Linux®, UNIX® and Windows® helps DBAs optimize the performance and availability of mission-critical DB2 applications and resolve performance bottlenecks before they affect the business. Organizations can take a proactive approach to meeting their application database performance needs and directly address challenges with capabilities that support performance monitoring, problem isolation and trend analysis.

DB2 Performance Expert helps DBAs monitor and analyze multiple DB2 instances running a wide variety of workloads, including OLTP, data warehousing and enterprise content management — all from a single control point. With DB2 Performance Expert, it is easier to identify resource

shortages and exceptional conditions in DB2 and the underlying operating system before they impact production applications. It is easier to manage locking conflicts and deadlocks; problematic applications or queries; constrained buffer pool, cache and heap sizes; as well as CPU, memory, file system shortages and data skew conditions. DBAs can take advantage of recommendations that help resolve performance issues and analyze real-time data that reflects current conditions, or leverage historical data in the performance warehouse to automate analysis and reporting, analyze trends and plan for growth.

DB2 Performance Expert Extended Insight Feature offers added benefits

Modern Java®-based application environments can offer huge benefits



DBAs have visibility into where Java database workloads, transactions and SQL requests are spending time.

and increased flexibility for application development and deployment. However, these applications can create equally huge challenges for DBAs in understanding and managing overall database performance in those environments.

As the number of software layers increases between the application issuing a query and the underlying database server, so does the difficulty in isolating performance problems to the offending component. Even after a problem is isolated to a particular query, DBAs and developers may find it difficult to identify which application issued the query, particularly if the query was automatically generated by a Java framework.

The IBM DB2 Performance Expert Extended Insight Feature provides the DBA with an end-to-end database monitoring solution. DBAs can take advantage of a complete view of database performance across the database client, application server, database server and the network between them.

Using DB2 Performance Expert with the Extended Insight Feature gives DBAs visibility into where Java database workloads, transactions and SQL requests are spending time. DBAs can see the database system performance from the application perspective. That makes it easier to monitor performance indicators that

reflect the end-user experience and proactively detect negative trends in response times, network congestion between the application and the database, or other factors key to sustaining SLAs. Graphical displays help pinpoint problems. DBAs can filter analysis information by application, database, user or other criteria, helping them drill down into relevant details to isolate problems quickly.

When used with IBM WebSphere® Application Server, the DB2 Performance Expert Extended Insight Feature gathers additional performance indicators, including WebSphere Application Server connection pool wait times and other vital database-related, performance statistics. With new capabilities for monitoring the complete database request and response times, DBAs can reduce the time needed to isolate the sources of application database performance issues from days to minutes.

Similarly, when the cause of performance issues lies outside of the database, DBAs can eliminate the database as the potential source of application performance issues. Problems are resolved faster. Managing SLAs becomes easier and more effective.

Bottom line value across your enterprise To keep business processes running smoothly, organizations must have business-critical applications operating at peak performance. IBM's DB2 Performance Expert and the DB2 Performance Expert Extended Insight Feature deliver business value:

- Manage the performance of business-critical applications to ensure maximum customer satisfaction, help maximize revenue and meet SLAs for responsiveness and service.
- Quickly identify and resolve performance problems before they affect the business. Apply coherent diagnostics that facilitate collaboration among DBAs, systems administrators and developers.

About IBM Optim Integrated Data Management Solutions

IBM DB2 Performance Expert and IBM DB2 Performance Expert Extended Insight Feature are part of IBM Optim Integrated Data Management portfolio.

IBM Optim Integrated Data Management Solutions offer proven, integrated capabilities to manage enterprise application data from requirements to retirement. With Optim, teams can share data artifacts (like models, policies and metadata) to

align data management with business goals and improve collaboration.

Today, organizations of all types leverage Optim to improve performance, streamline database administration, speed application development, and enable effective governance. Optim delivers better business outcomes, at lower cost, with less risk, while providing capabilities that scale across enterprise applications, databases and platforms.

For more information

To learn more about DB2

Performance Expert and DB2

Performance Expert Extended Insight

Feature, visit: [http://www-](http://www-01.ibm.com/software/data/studio/performance-expert-luw/)

[01.ibm.com/software/data/studio/performance-expert-luw/](http://www-01.ibm.com/software/data/studio/performance-expert-luw/)

For details on IBM Optim Integrated Data Management Solutions, contact your IBM sales representative or visit:

[http://www-](http://www-01.ibm.com/software/data/data-management/)

[01.ibm.com/software/data/data-management/](http://www-01.ibm.com/software/data/data-management/)



© Copyright IBM Corporation 2009

IBM Software Group
111 Campus Drive
Princeton, NJ 08540-6400
U.S.A.

www.optimsolution.com

Produced in the United States of America
April 2009
All Rights Reserved

IBM, the IBM logo, ibm.com, DB2, Optim, and WebSphere are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

All other company or product names are trademarks or registered trademarks of their respective owners.

References in this publication to IBM products, programs or services do not imply that IBM intends to make them available in all countries in which IBM operates or does business. Offerings are subject to change, extension or withdrawal without notice.

All statements regarding IBM future direction or intent are subject to change or withdrawal without notice and represent goals and objectives only.