

Taming DB2 Performance Issues

By Craig S. Mullins

One of the biggest problems faced by companies today is keeping applications running at peak efficiency. It can be a never-ending task to diligently collect, examine, and react to performance-oriented statistics. This is certainly the case for DBAs charged with maintaining optimal performance of DB2 databases and applications.

Whether you manage distributed applications on Linux, Unix, and Windows, or host applications on z/OS and OS/390, the challenges associated with optimizing performance are similar. DB2 performance is a three-headed beast encompassing the SQL in your application programs, the database objects being accessed, and the database system itself - all of which must be tamed to assure optimal performance.

The chief cause of poor database performance is typically inefficient SQL. Industry experts agree that poorly performing SQL is responsible for as much as 80 percent of response-time SLA failures. As a DBA, you need to be able to proactively analyze and tune SQL code with minimal overhead.

While DB2 has management tools, sometimes turning to third party suppliers can also be efficient. For example, BMC Software's SmartDBA solutions can be used to ensure the availability and performance of your business-critical applications by automatically identifying performance problems and making recommendations to proactively correct poorly performing SQL statements. Leveraging the most advanced SQL tuning technology in the industry, SmartDBA improves DB2 business applications performance by proactively diagnosing and analyzing poorly performing SQL statements in both production and development environments.

Even the most efficient SQL can run poorly against inefficiently organized DB2 database objects. Using BMC's SmartDBA database performance solutions you will be able to optimally organize your databases to achieve the best possible end-to-end response times -- and therefore meet your service-level objectives, both in terms of performance and business availability. Using SmartDBA you can identify the objects that are most active and in need of reorganization, and then automatically create and schedule jobs to reorganize those objects -- even for complex environments such as ERP systems with thousands of objects or e-business systems with high transaction rates.

Finally, you will need to monitor and tune the DBMS system itself. Memory usage for buffer pools and SQL caching, locking, logging, and CPU utilization are all important aspects of DB2 system performance management. SmartDBA System Performance lets you tune your DB2 system so applications run more quickly and efficiently, reducing customer wait times

and increasing customer satisfaction levels. Because SmartDBA dynamically tunes your DB2 system as workloads change, it delivers more consistent performance and staff productivity, even while you are planning for future growth and capacity.

With built-in intelligence, integrated monitoring capabilities regardless of

DBMS platform, and automatic management capabilities, SmartDBA provides the performance management portal that DBAs need to proactively keep DB2 running at top speed.

An expanded version of this article with a figure appears on our Web site at www.dbta.com.

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