ExclamationSOFT

Better Monitoring with WebWatchBot Series

Performance: Measuring Database Performance

Poor database performance is often neglected since it is occasionally identified in two instances: during development - hopefully before customers and clients notice problems - and when slow performance is obvious and detrimental to your customers and clients.

Aside from the need to immediately fix slow database performance affecting users, the question that is rarely asked is, "when did the performance problem start?" The answer to the question is easily answered if the database is being monitored throughout its lifecycle.

Websites driven by database back-ends are held ransom to a database's performance. Because of this, an effective website monitoring strategy includes monitoring of a database server, pages that use a large number of database queries and pages that use potentially problematic database queries.

Focusing on database queries, a page that uses a large number of them is a prime candidate for monitoring on a continuous basis, i.e. once every 5 minutes, 24 hours a day, 7 days a week. In addition, one or all of the queries employed by that web page should also be monitored by directly running those database queries and measuring the amount of time taken to connect to the database and execute the query. Comparing statistics side-by-side will help pinpoint potential problems when analyzed by time of day, day of week, and basic website traffic statistics. Furthermore, database queries that are not seen as a problem in development can emerge as a problem after deployment with monitoring and historical data.

Web pages that have known long running queries should be monitored to determine when they are at their worst and if it is acceptable that they remain unchanged. For example, a database query used in a batch reporting process that is known to take a long time may be perfectly acceptable since it may run in off-hours.

Database monitoring is essential for database performance measurement. Only through the gathering of performance data can educated decisions be made to improve poor performance, and instituting an effective database strategy should begin early.