DTRACE SUPPORT IN MYSQL: GUIDE TO SOLVING REAL-LIFE PERFORMANCE PROBLEMS

Kopytov A.

Sun Microsystems SPB

DTrace has revolutionized the traditional approaches to monitoring and performance tuning. While it can be used to get a wide spectrum of information from a MySQL server even without embedded probes, this process is often complicated by the need to have a deep knowledge of the server internals, and a lack of low-level details in the information provided by the system probes.

The introduction of static DTrace probes in MySQL 6.0.8 makes collecting and aggregating performance statistics easier by exposing internal data from a MySQL server in a more transparent and user-friendly way.

This session will give an overview of the new set of static probes available in MySQL 6.0 and the possibilities they are opening. We will look at examples of D scripts to collect various per-thread, per-user, per-table or per-query statistics. There will also be a hands-on guide on using both system and MySQL static probes to answer the most frequently encountered performance questions:

- Where does a query spend most of its execution time?
- Is my server suffering from disk, CPU, network or lock contention?
- Are indexes, buffers and caches used efficiently?
- What queries suffer the most from hardware limits, cache misses, or inefficient execution plans?

The last part of the talk will be devoted to presenting our plans for adding more static probes into the server code, and collecting feedback from users on what probes they would like to see in the server.