

Solutions for Datawarehouse and Reporting tools

Performance improvement and stability

Challenges

- Improve response time of reports and ad-hoc queries from hours to minutes and improving overall response time without recoding your reports and ad-hoc queries or touching your databases → with **ActiveBase Performance**
- Prevent performance degradation due to uncontrolled and 'never-ending' reports and ad-hoc queries ('query-from-hell') running on business application production databases → **ActiveBase Performance** delivering SQL request optimization, blocking or automatic SQL redirection to mirror/replication. **ActiveBase Priority** dynamically prioritizing resource allocation to these requests.

Customer Experience

A leading Telecom company uses SQL optimization rules that have improved report response times from hours into minutes, while reducing overall response time to all reports executed on the Datawarehouse by 30%!

- Churn reports have been completed in 30 minutes (instead of 6 hours), thus enabling to run it several times a day, helping the business be more responsive and efficient.
- ActiveBase helped to save on hardware and software upgrades for a period of three years while the Datawarehouse size grew from 7 Terra to more than 20 Terra!

Another leading Telecom company deployed a large Datawarehouse on a 64 CPU HP Superdome with Oracle10 RAC. After going live, the performance deteriorated substantially, causing user dissatisfaction:

- Reports were running several times a day, with up to **120 parallel query degree** causing other reports to run serial for hours. In addition, reports were **scanning hundreds of partitions** as users omitted date restrictions in reports.

ActiveBase Performance was quickly installed and configured to identify and control these occurrences, assigning dynamically the number of parallel query servers, according to the specific user group and SQL execution plan, stabilizing overall Datawarehouse performance and improving response times.



"Using ActiveBase Performance software made our business reporting ten times faster and more efficient, saving substantial resources and enabling us to expand while still maintaining our existing server."

Ms. Limor Malay, DW Division Manager Orange



Management Console



ActiveBase Performance Solution

Benefits

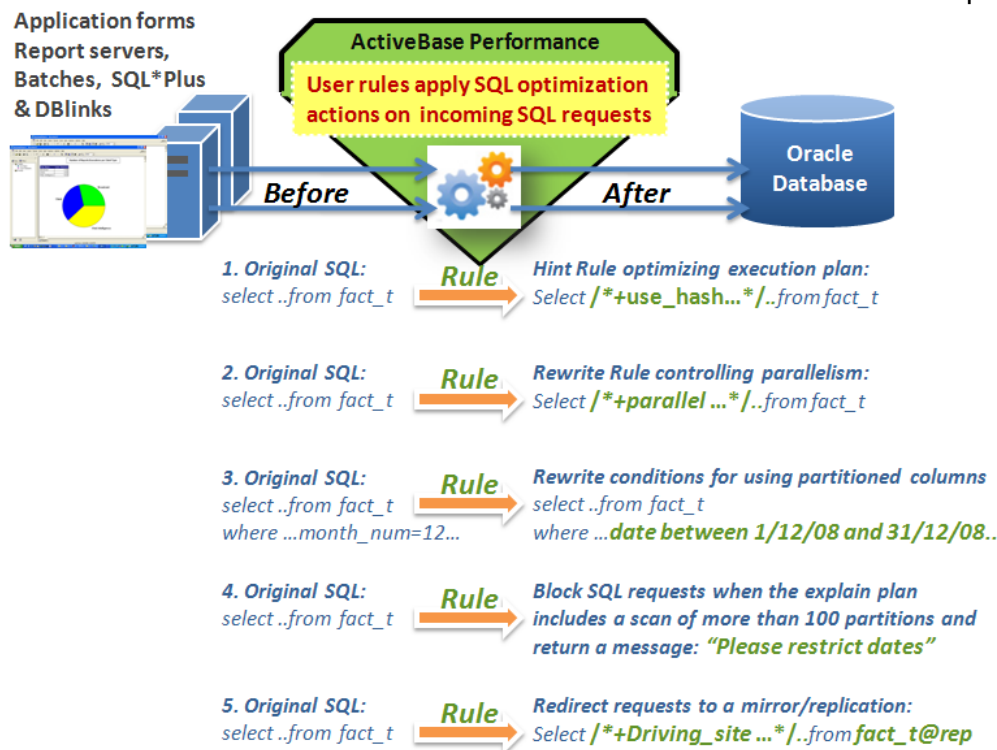
ActiveBase Performance unique SQL*Net Proxy transparently intercepts long running SQL requests and user-defined Rules apply blocking actions (including returning a message back to the user) or various SQL optimization techniques, including rewrites or adding Oracle Hints, with no changes to the application source code or databases!!

1. Improving response time of long requests

SQL optimization techniques result in up to x100 faster response time.

A single rule can improve hundreds of similar reports, as identification criteria include partial explain plan, regular expression and syntax matching.

- 👉 **Without changing applications or touching databases:**
- ✓ Save on costly hardware upgrades and software licensing by optimizing reports and ad-hoc queries SQL requests
- ✓ Improve response time from hours to minutes
- ✓ Prevent performance degradation on production databases
- ✓ Automatically switch reports from production to a mirror/replication
- ✓ Empower your DBA and performance experts with the industry most powerful performance solution!



ActiveBase Performance intercepts incoming SQL requests and applies user defined rules for performance improvement, management and control

- Reports and ad-hoc queries were running on too many partitions because partition key restrictions have not been properly entered (due to date format conversions).

A rule was created to automatically change predicate date format to use partition key correctly using ActiveBase's SQL 'Where' clause rewrite action (see example 3).

- Another rule identifies application requests that do not use an index-scan when a specific condition appears in the Where clause.

A rule was created to identify SQL text that includes %column IN% condition, adding an Oracle hint that enforced the correct index usage, speeding execution times (see example 1).

2. Blocking penalizing requests

ActiveBase Performance user-defined rules can identify requests based on full scan executions, date ranges, number of partitioned scanned or other considerations and block the request while returning a customized message to the user.

- *A rule was created to identify and block full scan on a specific table (like BILLING_ACCOUNT table) (see example 4).*

3. Redirecting requests to a mirror/replication database

ActiveBase Performance rules can identify performance degrading requests and automatically add to them db@links including the driving_site hint for remote site execution (see example 5).

Quick implementation

ActiveBase Performance software module is centrally and transparently installed on the database server or on a dedicated server, and can also act as a hub for hundreds of distributed database servers.

Built-in failover features, clustering and Oracle failover features guarantee high availability. ActiveBase Performance multi-threaded high-performance architecture adds propagation measured in less than a millisecond per SQL (negligible overhead).

Supported platforms

ActiveBase Performance supports all applications using Oracle8.0 databases and higher. It is available on Solaris, AIX, HP-UX, Linux and Windows platforms.