Oracle Advanced Metrics service monitor

The Oracle (Advanced Metrics) service monitor provides checks on several internal Oracle performance statistics. To gather these statistics Uptime Infrastructure Monitor runs several queries directly against the Oracle database. Information on the exact queries and the required permissions for the Oracle (Advanced Metrics) monitor are outlined in this article.

Required Permissions

The Oracle (Advanced Metrics) service monitor selects from the following objects:

- v$sysstat
- v$rowcache
- v$librarycache
- v$session
- dba_blockers

Metrics

Metric	Explanation	Query
Buffer Cache Hits Ratio	The number of buffer cache hits that are completed without accessing disk I /O.	column hit heading "HIT RATIO (%)" format 990.9 column "SHARED POOL" format A16 select round(100 * (sum(decode(name, 'physical reads', 0, value)) - sum(decode(name,'physical reads',value,0))) / sum(decode(name,'physical reads',0,value)), 1) hit from v$sysstat where name in ('db block gets', 'consistent gets', 'physical reads') ;
Data Dictionary Cache Hits Ratio	The number of data dictionary cache hits that are completed without accessing disk I/O.	column "HIT RATIO (%)" format 990.9 column "SHARED POOL" format A16 select 'DICTIONARY CACHE' "SHARED POOL", least(100, round(100 * sum(gets - getmisses + (usage - fixed)) / sum(gets), 2)) "HIT RATIO (%)" from v$rowcache ;
Library Cache Hits Ratio	The rate at which library cache pin misses occur.	column "HIT RATIO (%)" format 990.9 column "SHARED POOL" format A16 select 'LIBRARY CACHE' "SHARED POOL", least(100, round(100 * sum(pinhits)/sum(pins), 2)) "HIT RATIO (%)" from v$librarycache where pins > 0 ;
Redo Log Space Request Ratio	The number of redo log space requests per minute that have been made since the server was started.	column "Space requests (%)" format 990.9 select round(100 * sum(decode(name, 'redo log space requests', value, 0)) /sum(decode(name, 'redo entries', value, 0)), 1) "Space requests (%)" from v$sysstat where name in ('redo log space requests', 'redo entries') ;
Disk Sort Rate	The rate of Oracle sorts that are too large to be completed in memory and which are sorted using a temporary segment.	select d.value * 100/(d.value + m.value) DISK_SORT_RATE from v$sysstat m, v$sysstat d where m.name='sorts (memory)' and d.name='sorts (disk)' ;

Active Sessions	The number of active sessions based on the value of V$PARAMETER. PROCESSES in the file init.ora.	set line 120 pagesize 1000 feed off; column "sid" format 999 column "user" format a10 column "st" format a8 column "prg" format a30 select status "st", sid "sid", username "user", program "prg" from v$session where username is not null and audsid <> userenv('SESSIONID') order by status ;
Oracle Blocking Sessions	The number of sessions that are preventing other sessions from committing changes to the Oracle database.	set line 120 pagesize 1000 feed off; select a.sid, a.username, a.program from v$session a, dba_blockers b where a.sid = b.holding_session ;
Oracle Idle Sessions	The number of Oracle sessions that are idle.	set line 120 pagesize 1000 feed off; column "sid" format 999 column "user" format a10 column "st" format a8 column "prg" format a30 select status "st", sid "sid", username "user", program "prg" from v$session where username is not null and audsid <> userenv('SESSIONID') order by status ;