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| **High 'library cache lock' Wait Time Due to Invalid Login Attempts (Doc ID 1309738.1)** | [IMG_256](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1%26_adf.ctrl-state=vg5kuddeh_92%26_afrLoop=149116386931375%20/o%20To%20Bottom)  [To Bottom](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\o To Bottom) | IMG_257 |

IMG_258

IMG_259

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| **In this Document**   |  |  | | --- | --- | |  | [Symptoms](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\l SYMPTOM) |  |  |  | | --- | --- | |  | [Changes](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\l CHANGE) |  |  |  | | --- | --- | |  | [Cause](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\l CAUSE) |  |  |  | | --- | --- | |  | [Solution](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\l FIX) |  |  |  | | --- | --- | |  | [References](https://support.oracle.com/epmos/faces/DocumentDisplay?id=1309738.1&_adf.ctrl-state=vg5kuddeh_92&_afrLoop=149116386931375 \\l REF) |   IMG_260    **APPLIES TO:**  Oracle Database - Enterprise Edition - Version 10.2.0.5 and later  Information in this document applies to any platform.  **SYMPTOMS**     * 'Library cache lock' or 'row cache lock' can be observed when concurrent users login with wrong password to the database. * The 'row cache lock' is seen in 10.2 and 11.1 while the 'library cache lock' is seen in 11.2. * ASH Report displays      * High Percentage of execution time attributed to Connection Management:   IMG_261   * High percentage of calls of type OAUTH   IMG_262   * Stack contains one of the following functions:   kziavua  kziaia    kziasfc     * Checking the **exclusive** holder from DBA\_DDL\_LOCKS,  a session may be seen holding a lock type (kglhdnsp) 79 on object (kglnaobj) 5:   SQL> select \* from dba\_ddl\_locks where mode\_held='Exclusive';   SESSION\_ID OWNER     NAME       TYPE       MODE\_HELD MODE\_REQU  ---------- --------- ---------- ---------- --------- ---------         612           5          79         Exclusive None     * If AUDIT\_TRAIL is enabled, login failures can be checked by running SQLs similar to the following:   Checks for entries in the last 7 days in DBA\_AUDIT\_TRAIL with error ORA-1017  invalid username/password; logon denied  select username, os\_username, userhost, client\_id, trunc(timestamp), count(\*) fa  iled\_logins  from  dba\_audit\_trail  where returncode = 1017  and timestamp > sysdate - 7  group by username, os\_username, userhost, client\_id, trunc(timestamp);  Checks for entries in the last 7 days in DBA\_AUDIT\_SESSION where an error was returned  select username, os\_username, userhost, timestamp, returncode  from sys.dba\_audit\_session  where returncode != 0  and timestamp > sysdate - 7;  **CHANGES**  Many users with wrong password try to login to the database simultaneously  **CAUSE**  A hang is possible in earlier versions of RDBMS as a result of an unpublished bug fixed in the following versions:       12.1.0.1 (Base Release)      11.2.0.2 (Server Patch Set)      11.1.0.7 Patch 42 on Windows Platforms  [Document 9776608.8](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1309738.1&id=9776608.8) Bug 9776608 - Hang from concurrent login to same account with a wrong password  Even with this fix, numerous failed logins attempts can cause row cache lock waits and/or library cache lock waits.   This was reported in:  [Bug 11742803](https://support.oracle.com/epmos/faces/BugDisplay?parent=DOCUMENT&sourceId=1309738.1&id=11742803 \\t _blank) LOTS OF 'LIBRARY CACHE LOCK' DURING USER LOGON AUTHENTICATION  This was closed as not a bug because there is an intentional wait when a login fails.  **SOLUTION**  In Oracle 11g Release 11.1.0.7,  the wait is disabled unconditionally  In Oracle 11g Release 2 and higher, in order to disable the wait between login failures the event 28401 needs to be explicitly enabled:   The event can be set as follows:  alter system set event ="28401 TRACE NAME CONTEXT FOREVER, LEVEL 1" scope=spfile;  For more information see:  [Document:7715339.8](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=1309738.1&id=7715339.8) Logon failures causes "row cache lock" waits - Allow disable of logon delay   Note: Care should be taken when setting this event, as this is disabling the sleep time which can leave the system more vulnerable.  For databases using MTS, a further enhancement has been created in:  [Bug 19867671](https://support.oracle.com/epmos/faces/BugDisplay?parent=DOCUMENT&sourceId=1309738.1&id=19867671 \\t _blank) - LIBRARY CACHE LOCK CAUSED BY WRONG PASSWORD LOGIN  as setting the event is not as effective as it is for dedicated systems. The following enhancement is included in 12.2:   "The failed login counter will be disabled entirely for any user that has the setting UNLIMITED for their account's FAILED\_LOGIN\_ATTEMPTS password profile setting."  [Bug:19867671](https://support.oracle.com/epmos/faces/BugDisplay?parent=DOCUMENT&sourceId=1309738.1&id=19867671 \\t _blank) LIBRARY CACHE LOCK CAUSED BY WRONG PASSWORD LOGIN |