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| **PHYSICAL: ORA-604 ORA-16000 on Standby Opened Read Only (Doc ID 730659.1)** | [IMG_256](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4%26_afrLoop=255696122772531%20/o%20To%20Bottom)  [To Bottom](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\o To Bottom) | IMG_257 |

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| **In this Document**   |  |  | | --- | --- | |  | [Symptoms](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\l SYMPTOM) |  |  |  | | --- | --- | |  | [Changes](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\l CHANGE) |  |  |  | | --- | --- | |  | [Cause](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\l CAUSE) |  |  |  | | --- | --- | |  | [Solution](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\l FIX) |  |  |  | | --- | --- | |  | [References](https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=15mszo1z24_4&_afrLoop=255696122772531 \\l REF) |   IMG_260  **APPLIES TO:**  Oracle Database - Enterprise Edition - Version 9.2.0.1 to 10.2.0.4 [Release 9.2 to 10.2]  Information in this document applies to any platform.  Oracle Database versions 9.2 to 10.2.0.4  **SYMPTOMS**  Tried to log into Standby database Opened Read Only as non-sysdba user via  SQLPLUS on the server:   It fails with the following errors:  SQL> conn <username>  Enter password:  ERROR:  ORA-00604: error occurred at recursive SQL level 1  ORA-16000: database open for read-only access  ORA-01017: invalid username/password; logon denied    **CHANGES**  These steps were taken on the PHYSICAL standby BEFORE the test was done.  SQL> ALTER DATABASE RECOVER MANAGED STANDBY DATABASE CANCEL;  SQL> ALTER DATABASE OPEN;  SQL> SELECT NAME, DATABASE\_ROLE FROM V$DATABASE;   NAME DATABASE\_ROLE  --------- ----------------   V102P PHYSICAL STANDBY   SQL> select log\_mode,open\_mode , database\_role from v$database;     LOG\_MODE OPEN\_MODE DATABASE\_ROLE  ------------ ---------- ----------------  ARCHIVELOG READ ONLY PHYSICAL STANDBY  **CAUSE**  Cannot have failed\_logon\_attempts profiles set on an opened Read-only Standby Database. Oracle cannot write to the user$ table when the database is opened Read only.  To verify the issue, set events for the ora-604 and ora-16000:  Set the events on the standby.    SQL> alter system set events '604 trace name errorstack level 10';    SQL> alter system set events '16000 trace name errorstack level 10';   For 11g+, please set the events like:    SQL> alter system set events '604 trace name errorstack level 10';    SQL> alter system set events '16000 trace name errorstack level 3';       Reproduce the problem and upload the new trace files in the udump directory.   to unset the events:    SQL> alter system set events '604 trace name errorstack off';    SQL> alter system set events '16000 trace name errorstack off';      You will receive a Stack Trace like:  ksedmp ksddoa ksdpcg ksdpec ksfpec kgesev ksesec1 rpidrr rpidrv rpiexe ktsucu kqrcmt ktcrcm kziasfc kpolnb kpoauth opiodr ttcpip ...................  Current cursor: 0, pgadep: 0  Cursor Dump:  ----------------------------------------  Cursor 1 (10386bc98): CURBOUND curiob: 103871080  curflg: 5 curpar: 0 curusr: 0 curses 5a97ec3e8  cursor name:  update user$ set name=:2,password=:3,datats#=:4,tempts#=:5,type#=:6,defrole=:7,resource$=:8,ptime=DECODE(to\_char(:9, 'YYYY-MM-DD'), '0000-00-00', to\_date(NULL), :9),exptime=DECODE(to\_char(:10, 'YYYY-MM-DD'), '0000-00-00', to\_date(NULL), :10),ltime=DECODE(to\_char(:11, 'YYYY-MM-DD'), '0000-00-00', to\_date(NULL), :11),astatus=:12, lcount=:13, defschclass=:14 where user#=:1  child pin: 0, child lock: 5ac621548, parent lock: 5ac6217f0  xscflg: 20100426, parent handle: 5bc588410, xscfl2: 5100400   -> Stack Trace functions:   kziasfc Set the FAILED\_LOGIN\_COUNT parameter of the user \*  /  ktsucu insert, update, delete from user$ \*/    The ORA-16000 shows that the database is opened read-only. The ORA-1017 wants to update  the user$ table - FAILED\_LOGIN\_COUNT. This fails because the database isn't opened in read-write  mode, so that the internal tables (user$) can't be updated. This is the reason why the login never  is locked due to failed login.   In the above analysis it is established that the password profile does not work for a standby database in read only mode simply because of the fact no database writes can be done in read only, therefore the data dictionary (USER$) cannot be updated to log the failed login attempts  **SOLUTION**  You will need to change the Profile on the Standby to not use Failed\_logon\_attempts by setting them to unlimited on the Primary(get passed through the archive redo logs to the Standby) or disable using profiles on the Standby. You can try auditing users via OS on the Standby instead.  Solution Steps:  Solution 1:   1. On the Primary:  SQL> alter profile default limit failed\_login\_attempts unlimited ;   2. You can verify the change was made once the archivelogs have applied on the Standby by:  SQL> alter database open read only;  SQL> select RESOURCE\_NAME,RESOURCE\_TYPE,LIMIT from dba\_profiles where profile='<userprofilename>';    Solution 2:    1. Disable using profiles on the Standby database only, by auditing via the OS:   On the Standby:      SQL> alter system set audit\_trail='OS' scope=spfile;       (or if using init file, set audit\_trail='OS' in the init file)       Restart the standby for the change to take effect.  Solution 3: Other cases that cause the ora-16000 on the Standby are:   1. Invalid Synonyms on the Primary     If you see in the 16000 trace:    ORA-16000: database open for read-only access  Current SQL statement for this session:  update syn$ set node=:2,owner=:3,name=:4 where obj#=:1  Solution:  On the Primary:  SQL> select object\_name, object\_type from dba\_objects where status='INVALID' and object\_type = 'SYNONYM';  Recompile the invalid synonyms      2. Logon/Startup triggers  You normally will also receive the ORA-4088 with the ORA-16000 when it's a startup/logon trigger issue. You will just receive ORA-04088 when profiles are not involved and just startup/logon trigger issue.  njprod01\_dr\_mrp0\_12816506.trc  ==============================  Redo shipping client performing standby login  OCISessionBegin failed -1  .. Detailed OCI error val is 4088 and errmsg is 'ORA-04088: error during execution of trigger 'ACCOUNTMGR.LOGON\_AUDIT\_TRIGGER'  ORA-01403: no data found  ORA-06512: at line 6  '  \*\*\* 2009-03-31 08:33:58.688 62692 kcrr.c  Error 4088 received logging on to the standby  \*\*\* 2009-03-31 08:33:58.688 62692 kcrr.c  FAL[client, MRP0]: Error 4088 connecting to njprod01 for fetching gap sequence  \*\*\* 2009-03-31 08:33:58.688  ksedmp: internal or fatal error  ORA-04088: error during execution of trigger '.'  Solution:  1) Disable the logon/startup trigger on the Primary or Standby, until you can fix it to not fire when the Standby database is open read only.  You can disable the startup trigger by setting the \_system\_trig\_enabled=false parameter in the Standby's init.ora file.  Refer My Oracle Support [Note 68636.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=730659.1&id=68636.1) and set the \_system\_trig\_enabled = false  in Standby DB.  On the Primary:    o Modify the Startup trigger to not fire when a database is opened read-only.           i.e.  if v\_database\_role !='READ ONLY' then    o Modify a Logon trigger to not fire for PUBLIC users.           i.e. if v\_username !='PUBLIC' then  **REFERENCES**  [NOTE:461653.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=730659.1&id=461653.1) - Unable to connect to read only database, Getting error ORA-00604 ORA-16000 [NOTE:68636.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=730659.1&id=68636.1) - Init.ora Parameter "\_SYSTEM\_TRIG\_ENABLED" [Hidden] Reference Note [BUG:7581964](https://support.oracle.com/epmos/faces/BugDisplay?parent=DOCUMENT&sourceId=730659.1&id=7581964 \\t _blank) - INCORRECT LOGIN TO THE PRIMARY CAUSES ORA-16000 IN THE STANDBY DATABASE |