

Note Language: English

Version: 8

Validity: Valid from 16.06.2006

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Summary

Symptom

The installation process hangs on the file system Reiserfs:
create spfile from pfile is not possible.
You cannot change SPFILE parameters.
You cannot collect Oracle dictionary statistics.
grant sysdba to system is not possible.
General: Access to Oracle password file or init.ora file.
sapinst terminates with ora 3114.

Oracle error messages:

```
ERROR at line 1:  
ORA-27091: unable to queue I/O  
ORA-27072: File I/O error  
Linux Error: 22: Invalid argument  
Additional information: 4  
Additional information: 1  
Additional information: -1
```

```
BR0301E SQL error -27091 at location stats_oradict_collect-2  
ORA-27091: unable to queue I/O  
ORA-27072: File I/O error  
Linux Error: 22: Invalid argument  
Additional information: 4  
Additional information: 1  
Additional information: -1  
ORA-06512: at "SYS.DBMS_STATS", line 13313  
ORA-06512: at "SYS.DBMS_STATS", line 13620  
ORA-06512: at "SYS.DBMS_STATS", line 14142  
ORA-06512: at line 1  
BR1313E Collection of Oracle dictionary statistics failed
```

More Terms

Cause and Prerequisites

The cause of these errors depends on the file system you are using and the init.ora parameter filesystemio_options = setall. Without special options, errors may result with Reiserfs and O_DIRECT.

This note is for Oracle 10.x on Linux.

The error occurs regardless of the hardware used, and occurs on IBM PPC_64, AMD64, Intel X86 and so on. The file system Reiserfs and the Oracle parameter are solely responsible for this.

Basic remark:

Parameter filesystemio_options was introduced for performance reasons, to support O_DIRECT, amongst other things.

In this case, reiserfs demands the mountoption -or notail.

Solution

There are two ways to prevent this error from occurring:

1. Change the default mountoption for Reiserfs
necessary mountoption: -o notail.
Sample rows for /etc/fstab:

```
/dev/sda1 /oracle reiserfs notail,acl,user_xattr 1 2
```

If the file system was created initially without the mount option -o notail, errors may still occur. The reason for this is that Reiserfs does not save smaller files in the file system area itself but rather in the file system table. This results in the following problem:
Files specified with direct-I/O must be saved in the file system. Changing the mount option subsequently cannot solve this problem. If this happens, you must copy the files into another file system and then copy them back to the correctly mounted Reiserfs file system. Alternatively, you can use the second option, but this does not give optimal I/O performance.

2. Set the Oracle parameter FILESYSTEMIO_OPTIONS = NONE.
for async I/O, which generally results in better performance, set the parameter to FILESYSTEMIO_OPTIONS = ASYNC.

Header Data

Release Status:	Released for Customer
Released on:	24.04.2008 11:18:13
Priority:	Correction with high priority
Category:	Workaround for missing functionality
Main Component	BC-DB-ORA Oracle
Additional Components:	BC-DB-ORA-DBA Database Administration with Oracle

The note is not release-dependent.

Related Notes

Number	Short Text
1114181	Oracle database, SuSE/Novell Linux, file system and I/O type
1094599	Inst.NW 7.0 SR3/Business Suite 2005 SR3-UNIX/Oracle
972263	Inst.NW 7.0(2004s)SR2/Business Suite 2005 SR2-UNIX/Oracle
967506	Inst. SAP NetWeaver based on Kernel 7.1 - Unix Oracle
958253	SUSE LINUX Enterprise Server 10: Installation notes
945315	SAP installation on Linux on POWER/Oracle 10.2
841728	Oracle Database 10g: Software installation problems 10.2.0
830576	Parameter recommendations for Oracle 10g
797084	SUSE LINUX Enterprise Server 9: Installation notes
405827	Journalled file system and raw devices on Linux