

/dbadmin/diag/rdbms/v12101/trace/v12101 pmon 3841.trc

Required diagnostics if the database hangs at the time of the warning

When the 'PMON failed to acquire latch, see PMON dump' warnings are seen in the alert log, it is likely that the database will hang or appear to hang. It is very important to collect diagnostic traces immediately when you encounter the hang **AND** while it is occurring. If you capture data long after you first encounter a hang, it may not provide enough information as to what originally caused the hang. The quicker you can capture hang diagnostics the easier they are to interpret since there are likely to be less blocked processes. For this reason capture hanganalyze and systemstate dumps prior to collecting other information such as: AWR/ASH/STATSPACK, etc.

Specifically, Hanganalyze and Systems State dumps must be taken while the hang is occurring otherwise they are of little to no use for diagnosis.

3) Collect HangAnalyze traces

Generate 2 HangAnalyze Level 3 traces 1 minute apart, connected as the sys user:

```
# sqlplus / as sysdba
SQL> oradebug setmypid
SQL> oradebug unlimit
SQL> oradebug tracefile_name
SQL> oradebug hanganalyze 3
```

The location of the hanganalyze trace is written to the screen by the oraclebug tracefile_name command and also after the hanganalyze command has been run. It can be found in the Oracle trace directory.

Wait 1 minute and repeat.

4) Collect Systemstate dump

Generate 1 Systemstate Level 258, connected as the sys user:

```
# sqlplus / as sysdba

SQL> oradebug setmypid
SQL> oradebug unlimit
SQL> oradebug tracefile_name
SQL> oradebug dump systemstate 258
```

The location of the systemstate trace is written to the screen by the oraclebug tracefile_name command. It can be found in the Oracle trace directory.

5) Collect OSWatcher (osw) data

If you have OSWatcher installed and it was collecting data over the period of the problem, then "tar up" the OSWatcher archive data and upload the entire archive directory to the SR. The location of OSWatcher data can be found by looking in /tmp/osw.hb. If not then omit this step. See <u>Document 301137.1</u> for details about OSWatcher.

6) Collect any other Oracle trace files that got generated during the time of the hang

Check the Oracle trace directory for any other files whose timestamp is within the timestamp window of the hang.

7) Gather Additional Diagnostics

The final part of the collection will depend upon whether you have a diagnostic pack license:

With Diagnostic Pack License

If you have the diagnostic pack license:

7a) Generate and Check ADDM report, implement findings, re-test

Collect an ADDM (Automatic Database Diagnostic Monitor) report covering a short period while the problem is occurring (a 1 hour snapshot duration (or less) is preferable). Gather the ADDM report through Oracle Enterprise Manager or in SQL*Plus using the ADDM report generation script: \$ORACLE_HOME/rdbms/admin/addmrpt.sql:

```
# cd $ORACLE_HOME/rdbms/admin/
# sqlplus SCOTT/TIGER
SQL> START addmrpt.sql
```

For more information see <u>Document 1680075.1</u> "How to Generate and Check an ADDM report" for instructions on how to do this.

Once you have Collected an ADDM Report, reviewed its findings and implemented any recommendations, re-check the performance. If you are still encountering problems, proceed to the next step.

Gather Diagnostics AWR reports

Collect AWR reports covering 2 periods. These periods should be of the same duration(a 1 hour snapshot duration (or less) is preferable) and should cover:

- The same problem period as with the ADDM report above
- (If possible) Another period where the problem was not being seen, but the load was similar (for comparison)

7b) AWR report for the problem period

To gather an AWR report, use the AWR report generation script: \$ORACLE_HOME/rdbms/admin/awrrpt.sql:

```
# cd $ORACLE_HOME/rdbms/admin/
# sqlplus SCOTT/TIGER
SQL> START awrrpt.sql
```

The report will prompt whether you want HTML or TXT (choose HTML)

For more details, refer to the following article:

Document 1903158.1 How to Collect Standard Diagnostic Information Using AWR Reports for Performance Issues

7c) AWR report for another period

If possible, gather a report from another period with similar load where problems are not seem. For example, if you had problems at 2pm today but things were fine yesterday, collect a report from yesterday at 2pm. Use the procedure above to collect the report.

7d) AWR Compare Periods report comparing the 'good' and 'bad' periods

If possible, gather a Workload Repository Compare Periods report to compare the good and bad periods selected above. This can help quickly identify differences so that efforts can be focused on likely problem areas. To collect the report use the awrddrpt.sql from the \$ORACLE_HOME/rdbms/admin directory supplying the Begin and End Snapshot Ids for both periods:

```
# cd $ORACLE_HOME/rdbms/admin/
# sqlplus SCOTT/TIGER
SQL> START awrddrpt.sql
```

7e) ASH report

If SQL performance is suspected as the cause of the slowness then collect an ASH report for the same problem period. To gather an ASH report use the ASH report generation script: \$ORACLE_HOME/rdbms/admin/ashrpt.sql:

```
# cd $ORACLE_HOME/rdbms/admin/
# sqlplus SCOTT/TIGER
SQL> START ashrpt.sql
```

The report will prompt whether you want HTML or TXT (choose HTML).

For more details on gathering ASH reports, refer to the following article:

Document 1903145.1 How to Collect Standard Diagnostic Information Using ASH Reports for Performance Issues

Without Diagnostic Pack License

If you do not have a diagnostic pack license then you need to install and gather a statspack report at the time of the issue. To install statspack, see:

<u>Document 1931103.1</u> How to Collect Standard Diagnostic Information Using Statspack Reports for Performance Issues

The Statspack report is similar to AWR, but AWR is much more comprehensive and contains significant additional information not available in Statspack.

7a) Gather a statspack report at the time of the issue

Assuming that you had statspack installed at the time of the incident and staspack snapshots were being collected, you can gather a statspack report using the following command:

```
SQL> connect perfstat/perfstat
SQL> start ?/rdbms/admin/spreport
```

You will be prompted for the beginning snapshot Id, the ending snapshot Id and the name of the report text file to be created

7b) Gather a statspack report for another period

If possible, gather a report from another period with similar load where problems are not seem. For example, if you had problems at 2pm today but things were fine yesterday, collect a report from yesterday at 2pm. Use the procedure above to collect the report.

Next Steps

8) Collate and upload the diagnostic information

You can find more guidance regarding troubleshooting 'PMON failed to acquire latch, see PMON dump' warnings in the following document:

<u>Document 976714.1</u> Resolving Issues Where 'PMON failed to acquire latch, see PMON dump' Warnings are Seen in the Alert Log

If you have been unable to resolve your issue, please collate the information and upload the files to support along with a clear problem explanation. In most cases the supplied information will be sufficient to progress the issue towards a solution but, in some cases, further follow up information may be required. The list of files to upload will be:

Alert log covering problem period along with any trace files referenced in that period PMON trace file: SID_pmon_PROCESSID.trc Hanganalyze trace file(s) Systemstate trace file(s) OSWatcher data With Diagnostic pack license Without Diagnostic pack license ADDM Report (Text) 3 AWR reports (HTML): 2 Statspack reports (Text): AWR report covering problem period Statspack report covering problem period AWR report covering good period Statspack report covering good period AWR Compare Periods report (good/bad) ASH (HTML) report for the same period 未找到您要查找的产品? 📮 在社区中提问... ✓相关内容 产品 • Oracle Database Products > Oracle Database Suite > Oracle Database > Oracle Database - Enterprise Edition > RDBMS > Generic SQL Performance, SQL Execution, Query Optimizer 关键字 DIAGNOSTIC; DIAGNOSTICS; PMON; SRDC 翻译 • 英语 源 • 日语 日本語 ▲ 返回页首 Copyright (c) 2016, Oracle. All rights reserved. Legal Notices and Terms of Use | Privacy Statement