**Monitoring Database**

**Overview**

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| **Trigger:** | Monitor Database | | |
| **Special Permissions:** | SYS Admin | **Responsible Team:** | DB Team |
| **Config. Item:** | Database | **KB Reference:** | KB# |

**Instructions**

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| **Step #** | **Information** |
| 1. | * Invoke SQL\*Plus and connect to database with SYSDBA privileges. |
| 2. | * Check Instance availability by connecting to DB using below query   SQL> Select instance\_name, status, to\_char(startup\_time,' DD-MON-YY HH24:MI') "Startup Time" from v$instance;   * To check all the available instances on a host use below cmd   $ ps –ef | grep smon |
| 3. | * Check listener status using below cmd   $ lsnrctl status |
| 4. | * To check the disk space details use below cmd   $ df -h |
| 5. | * To check tablespace usage use below query   SQL> SELECT ts.tablespace\_name, "File Count",  TRUNC("SIZE(MB)", 2) "Size(MB)",  TRUNC(fr."FREE(MB)", 2) "Free(MB)",  TRUNC("SIZE(MB)" - "FREE(MB)", 2) "Used(MB)",  df."MAX\_EXT" "Max Ext(MB)",  (fr."FREE(MB)" / df."SIZE(MB)") \* 100 "% Free"  FROM (SELECT tablespace\_name,  SUM (bytes) / (1024 \* 1024) "FREE(MB)"  FROM dba\_free\_space  GROUP BY tablespace\_name) fr,  (SELECT tablespace\_name, SUM(bytes) / (1024 \* 1024) "SIZE(MB)", COUNT(\*)  "File Count", SUM(maxbytes) / (1024 \* 1024) "MAX\_EXT"  FROM dba\_data\_files  GROUP BY tablespace\_name) df,  (SELECT tablespace\_name  FROM dba\_tablespaces) ts  WHERE fr.tablespace\_name = df.tablespace\_name (+)  AND fr.tablespace\_name = ts.tablespace\_name (+)  ORDER BY ts.tablespace\_name; |
| 6. | * To check the number of users connected in a Database use below query   SQL> select count (\*) "Number of users Connected" from v$session where type='USER';   * To check the number of Active transactions in a Database use beow query   SQL> select count(\*) "Number of Active Transactions" from v$sqlarea sqlarea, v$session session where sesion.sql\_hash\_value = sqlarea.hash\_value and sesion.sql\_address = sqlarea.address; |
| 7. | * To check RMAN Backup status use below query   SQL> select SESSION\_KEY, INPUT\_TYPE, STATUS, to\_char(START\_TIME,'mm/dd/yy hh24:mi') start\_time,  to\_char(END\_TIME,'mm/dd/yy hh24:mi') end\_time, elapsed\_seconds/3600 hrs from V$RMAN\_BACKUP\_JOB\_DETAILS  order by session\_key; |
| 8. | * To check Database memory usage   SQL> select round(sum(used.bytes) / 1024 / 1024 / 1024 ) || ' GB' "Database Size", round(sum(used.bytes) / 1024 / 1024 / 1024 ) -  round (free.p / 1024 / 1024 / 1024) || ' GB' "Used space", round(free.p / 1024 / 1024 / 1024) || ' GB' "Free space" from  (select bytes from v$datafile union all select bytes from v$tempfile union all select bytes from v$log) used,  (select sum(bytes) as p from dba\_free\_space) free group by free.p   * To check server and swap memory usage   $ free –g |
| 9. | * To check the Database Buffer Cache Hit Ratio, use below query   SQL> SELECT substr ((1-(phy.value/(cur.value + con.value)))\*100,1,5) "Buffer Cache Hit Ratio" FROM v$sysstat cur, v$sysstat con, v$sysstat phy WHERE cur.name = 'db block gets' AND con.name = 'consistent gets' AND phy.name = 'physical reads';   * To check the Database Library Cache Hit Ratio   SQL> SELECT substr (SUM(PINS-RELOADS)/SUM(PINS)\*100,1,5) "Library Cache Hit Ratio" FROM V$LIBRARYCACHE;   * To check the Database Dictionary Cache Hit Ratio   SQL> SELECT substr ((SUM(GETS-GETMISSES))/SUM(GETS)\*100,1,5) "Dictionary Cache Hit Ratio" FROM V$ROWCACHE; |
| 10. | * Check Remote Connectivity of Database using SQL Developer. |

**Document Control**

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| Revision History | | | | |
| Version | **Date** | **Author** | **Title & Company** | **Description** |
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| Document Approval | | | | |
| Version | **Name** | **Title & Company** | **Date** | **Signature** |
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