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For Operations Manager i for Linux and Windows® operating systems

Reference Guide

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Contents

Chapter 1: OMi MP for Oracle Database Metrics	8
E109_SessionHardParsesMax	8
E128_DGLogsNotAppliedToStandbyDB	8
E058_ArchvFreeSpcPct	9
E144_StrmsApplyErrs	10
E008_TSBReadRatioCnt	10
E104_SQLExecRateMax	11
E090_DsptchrBusyPct	12
E031_OpenCrsrPctCnt	12
E095_SesUGAMemMaxPct	13
E306_SQLElapsedTime	14
E060_RedoUnarchvdCnt	14
E076_PQRangeScanPct	15
E064_UserDumpSpacPct	16
E201_OralnstAvailability	17
E007_TblSpcStatusCnt	17
E212_SegmentCantExtendCnt	18
E050_RcsvUsrCalRatio	18
E305_BufferGetsPerExecRatio	18
E303_SQLScanRows	19
E027_LibCachRelodPct	20
E096_ShrdSrvHWMPct	20
E001_DbInstanceStat	21
E141_StrmsCaptProcErrs	22
E091_NumDsptchrClnts	23
E041_FulshTblScnRate	24
E082_SessHighWatrCnt	24
E147_CRListStatus	25
E111_SessionLatchFreeWaitMax	25
E006_TblSpFreePctCnt	26
E075_RcsvCursrRatio	27
E030_FulLgTblScnRate	28
E016_SegmntExtendCnt	28
E078_ObjctsInvalidCnt	29
E218_SegExtRapidCnt	29
E105_BufferGetsPerExecRatio	30
E080_DisbldCnstrCnt	31
E047_TablesCachedCnt	31
E065_CoreDumpSpacPct	32
E019_SortDiskRate	32
E206_TblSpFreePct	33
E059_CursorCachePct	34
E097_DisbldTblLckNum	34

E004_UsersTmpDfltCnt	35
E083_DbwrCkprate	35
E203_TableSpaceFree	36
E018_SegExtRapidCnt	37
E074_PQQueryRate	38
E126_DGLogGapDetection	38
E312_SessionSuspendedMax	39
E062_BkgrDumpSpcePct	39
E102_SQLFetchesMax	40
E122_GlobalCacheBlockLostMax	41
E035_BckgndCkptRate	41
E029_SessWaitLckCnt	42
E213_TablespaceIO	43
E086_PhysReadsRate	44
E023_CurBufCacHitPct	44
E045_ShrdPoolFreePct	45
E140_StrmsPoolOptSize	45
E085_TransactionPct	47
E051_SortRowsAvgCnt	48
E032_RedoLgSpcReqCnt	48
E130_DGHrsSinceArchLogsRecieved	49
E039_LibCacGetHitPct	49
E143_StrmsApplyProcErrs	50
E216_SegmntExtendCnt	51
E309_SessionHardParsesMax	52
E079_DisbldTrigrsCnt	52
E081_SnapshotErrCnt	53
E133_DskGrpStatCnt	53
E052_SortTotalRate	54
E106_SQLElapsedTimeMax	55
E048_ChandRowFtchPct	55
E044_CommitRate	56
E043_EQTimeoutReqPct	56
E066_AlertLogSize	57
E210_TblSpaceFreePct	57
E146_CRSVirtIPStatus	58
E112_SessionSuspendedMax	58
E119_HeavySQLNum	59
E057_ArchiveFreqRate	60
E137_DGFSFailoverMonitoring	60
E011_TblSpcFrgmntCnt	61
E311_SessionLatchFreeWaitMax	61
E003_TblSpaceFreeCnt	62
E071_PQSrvHighwtrPct	63
E107_SQLCPUTimeMax	64
E021_BufferBusyPct	64
E108_SQLFullTableScanMax	65
E049_UserCallRate	65

E150_CRSVIPRelocStatus	66
E132_FileWithMaxTransferRate	66
E131_GlobalCacheCurBlockRecTime	67
E005_ObjctsForignCnt	68
E054_RollbackRate	68
E056_ArchvFreeSpcCnt	69
E033_RedoAlocLtchPct	69
E145_StrmsCapToAppLatency	70
E026_DictCacheHitPct	71
E129_DGHrsSinceLastSQLApply	72
E215_TblSpaceFreePct	72
E084_LongTransaction	73
E017_SegMaxExtentCnt	74
E103_SQLScanRowsMax	74
E149_CRSONSStatus	75
E002_ProcessStatus	76
E038_LtchOvrLimitCnt	76
E034_RedoCopyLtchPct	77
E301_DiskReadsPerExecRatio	78
E042_UnlyzTblIndxPct	78
E334_DskGrpFreePct	79
E127_DGStbyDestErr	79
E148_CRSGSDStatus	80
E077_DualExssRowStat	81
E123_GlobalCacheBlockRecTime	81
E070_PQSrvrsBusyPct	82
E087_ProcessPct	83
E020_SortMemoryPct	83
E040_LibCacPinHitPct	84
E101_DiskReadsPerExecRatio	85
E046_RowFetchbyIdxPct	85
E217_SegMaxExtentCnt	86
E302_SQLFetches	86
E009_TSTmpExntPctCnt	87
E092_ShrSvrReqWtPct	88
E310_SessionFreeBufferWaitMax	89
E136_FRADiscFullPct	89
E022_TotBufCacHitPct	90
E028_LocksUsedPct	91
E037_UserLogOnCnt	91
E304_SQLExecRate	91
E110_SessionFreeBufferWaitMax	92
E121_GlobalCacheBlockCorruptMax	93
E014_DataFStatusCnt	93
E088_LogicReadsRate	94
E024_EQWaitsReqPct	94
E307_SQLCPUTime	95
E308_SQLFullTableScanMax	95

E142_StrmsPropErrs	96
Send Documentation Feedback	98

Chapter 1: OMi MP for Oracle Database Metrics

This chapter provides information about the Oracle Database collections, metrics, and data store tables which can be used to configure the data-collection procedure.

E109_SessionHardParsesMax

Description: Sessions with high number of hard parses.

Collection interval: MEDIUM

Policy: OracleDB_0109

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 10.00

Message Text: Session ID <OPTION(SID)> of <OPTION(Username)> has <VALUE> percentage of hard parses to total parses. One or more Session has exceeded the threshold of <THRESHOLD> percentage. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Size of shared pool is not enough.

Potential Impact: Query performance slower than expected.

Suggested Action(s) : Increase the size of shared pool.

E128_DGLogsNotAppliedToStandbyDB

Description: Number of hours log files not applied to the standby databases.

Collection interval: HIGH

Policy: OracleDB_0128

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> number of hours Log files not applied to the standby databases. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more Log files not applied. Network, or hardware problem.

Potential Impact: Availability of primary database.

Suggested Action(s) : Identify log files on primary database, copy and apply it to Standby Databases.

E058_ArchvFreeSpcPct

Description: Percentage of free space on archive device.

Collection interval: MEDIUM

Policy: OracleDB_0058

Aspect: Oracle Archive Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 10.0

Message Text: Archive free space percentage (<VALUE>%) too low for archive device <OPTION (adest)> for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of free space to total available space on the archive device is lower than OVO set threshold.

File system getting full, either due to activity by other users or because archived redo logs are not being deleted after backup.

Potential Impact: Failure

Suggested Action(s) : Free up space on archive device. Take a back up of the archived logs to tape or other device to avoid failure of archiving process and subsequent suspense of all database activity.

The automatic action report for this metric shows the disk space utilization on the drive that contains the redo logs.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about the performance over a period of time.

E144_StrmsApplyErrs

Description: Monitors general apply errors in an Oracle streams environment.

Collection interval: MEDIUM

Policy: OracleDB_0144

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 1

Message Text: There are <VALUE> (>= <THRESHOLD>) Streams Apply Error(s) in <OPTION (dbname)> database. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : When an apply process cannot apply a message, it moves the message and all of the other messages in the same transaction into the error queue.

The probable cause could be found in the output of the Automatic Action of this alarm message.

Potential Impact: Delayed apply of messages to the destination database due to these apply errors.

Reduced data availability and recover ability in the replication environments.

Suggested Action(s) : Diagnose and correct the apply errors as reported by the Automatic Action command of this alarm message and try re-applying the error transactions.

E008_TSBReadRatioCnt

Description: Number of tablespaces with high ratio of block to physical reads.

Collection interval: MEDIUM

Policy: OracleDB_0008

Aspect: Oracle Tablespace Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> tablespaces with blocks read to physical reads too high in <OPTION (dbname)> (>=<OPTION(cli_threshold)>), most serious is <OPTION(tablespace_name)> at <OPTION (value_0008)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The ratio of blocks read to physical reads is higher than the OracleDB MP metric parameter for one or more tablespaces.

Full table scans on tables in the tablespace.

Potential Impact: Performance

Suggested Action(s) : In the load-balance I/O across the devices, check for the missing indexes and/or tune SQL statements that result in the full table scans.

The automatic action report for this metric lists important values for all tablespaces in the database.

A set of graphs (default) will be launched from this event. See the tablespace graph to understand about the performance over a period of time.

E104_SQLExecRateMax

Description: SQL statements with high execution rate.

Collection interval: MEDIUM

Policy: OracleDB_0104

Aspect: Oracle Query Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: One or more SQL statements with executions per minute too high (>=<THRESHOLD>). Worst offender has <VALUE> executions per minute owned by <OPTION(owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high execution rate. SQL statement invoked too frequently.

Potential Impact: Performance

Suggested Action(s) : If possible, reduce the number of times the SQL statement is invoked. Alternately, increase the threshold value to avoid triggering an alarm.

The automatic action report for this metric provides detailed information for the SQL statements exceeding the maximum allowed execution rate threshold.

E090_DsptchrBusyPct

Description: Percentage of busy dispatchers (average) in comparison with all dispatchers.

Collection interval: HIGH

Policy: OracleDB_0090

Aspect: Oracle Shared Server Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 50

Message Text: Dispatcher busy percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of dispatchers busy is higher than the set threshold.

Initialization parameter MTS_DISPATCHERS set too low.

Potential Impact: Performance

Suggested Action(s) : Increase the MTS_DISPATCHERS (need to increase MTS_MAX_DISPATCHERS initialization parameter first). Can also increase if the ALTER SYSTEM SET MTS_DISPATCHERS command is used when the database is processing.

A set of graphs (default) will be launched from this event. See the Multi-threaded Server graph to understand about the performance over a period of time.

E031_OpenCrsrPctCnt

Description: Number of users with percentage of open cursors to maximum configured.

Collection interval: HIGH

Policy: OracleDB_0031

Aspect: Oracle Transactions

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> users approaching maximum configured cursors for <OPTION(dbname)> (<OPTION(cli_threshold)>% of max), most serious is <OPTION(username)> at <OPTION(value_0031)>% of max. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of open cursors for one or more sessions is approaching the maximum number of cursors per session limit set by initialization parameter OPEN_CURSORS.

Initialization parameter OPEN_CURSORS is set too low.

Potential Impact: Failure

Suggested Action(s) : Increase initialization parameter OPEN_CURSORS.

The automatic action report for this metric will show all users and the number of cursors used by each.

A set of graphs (default) will be launched from this event. See the Initialization Limits graph to understand about the performance over a period of time.

E095_SesUGAMemMaxPct

Description: Maximum percentage of shared pool allocated to UGA.

Collection interval: HIGH

Policy: OracleDB_0095

Aspect: Oracle Shared Server Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 10

Message Text: Maximum percentage of shared pool allocated to UGA (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of total maximum UGA memory ever allocated for all current sessions is higher than the set threshold.

This metric reports percentage of maximum UGA memory in use compared to size of shared pool. Where UGA memory is located is dependent on how each user session is connected to Oracle. For sessions connected to dedicated server processes, this memory is part of the memory of the user process. For sessions connected to shared server processes, this memory is part of the shared pool.

Potential Impact: Performance, if shared pool configured too low.

Suggested Action(s) : Run action report to determine total UGA size for the shared connections and increase size of shared pool accordingly, or otherwise tune shared pool.

In Oracle 9.0, it is recommended that the UGA be allocated from the Large Pool instead of the Shared pool.

Oracle recommends that using the large pool to allocate the shared server-related UGA is better than using the shared pool. This is because Oracle uses the shared pool to allocate Shared Global Area (SGA) memory for other purposes, such as shared SQL and PL/SQL procedures. Using the large pool instead of the shared pool decreases fragmentation of the shared pool.

To store shared server-related UGA in the large pool, specify a value for the initialization parameter `LARGE_POOL_SIZE`. To see which pool (shared pool or large pool) the memory for an object resides in, check the column `POOL` in `V$SGASTAT`. The large pool is not configured by default; its minimum value is 300K.

Configure the size of the large pool based on the number of simultaneously active sessions.

The automatic action report for this metric will list UGA information by session.

A set of graphs (default) will be launched from this event. See the Multi-threaded Server graph to understand about performance over a period of time.

E306_SQLElapsedTime

Description: SQL statements with high elapsed time per execution for specific database.

Collection interval: NORUN

Policy: OracleDB_0306

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1

Message Text: Elapsed Time per execution (<VALUE>) seconds too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high elapsed time per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for the top ten SQL statements with high elapsed time per execution.

E060_RedoUnarchvdCnt

Description: Number of redo logs not yet archived.

Collection interval: HIGH

Policy: OracleDB_0060

Aspect: Oracle Archive Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 1.5

Message Text: Redo logs unarchived count (<VALUE>) is too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of redo logs not yet archived is higher than the set threshold (usually 1).

Archive process stalled or set to manual. Archive file system is full or archival is too slow in comparison with database activity.

Potential Impact: Failure

Suggested Action(s) : Check the archive destination file system space. Check the alert log for errors. Verify if the archiving is automatic.

E076_PQRangeScanPct

Description: Percentage of full table scans via rowid range compared to total.

Collection interval: MEDIUM

Policy: OracleDB_0076

Aspect: Oracle Parallel Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 10

Message Text: % of range scans vs full table scans (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of full table scans via rowid range scans compared to total full table scans is higher than the set threshold.

Too few parallel servers available (see metrics 101 and 105). Too high value for the PARALLEL_MIN_PERCEBT. Few full table scan queries eligible for parallelization. (Parallel Query option uses rowid range scans which includes the parallel query on partitioned tables.)

Potential Impact: Performance

Suggested Action(s) : Review the initialization parameters that affect the parallel query. To increase capacity to parallelize, review the database objects (tables and indexes) through the EXPLAIN PLAN for striping and/or partitioning.

A set of graphs (default) will be launched from this event. See the Parallel Query Option graph to understand about the performance over a period of time.

E064_UserDumpSpacPct

Description: Percentage of space used on the user dump device.

Collection interval: HIGH

Policy: OracleDB_0064

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 98.0

Message Text: User dump device used percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of disk space full on the user dump device is higher than the set threshold.

File system full.

Potential Impact: Failure

Suggested Action(s) : Archive any existing and needed trace files to another file system or tape. Delete unwanted files in the file system. Limit the size of the trace files with the initialization parameter MAX_DUMP_FILE_SIZE specified in the Operating System blocks (normally 512 bytes). For example, if your logical file system block size is 512 bytes and you do not want to exceed 1 MB for the trace file size, then you can set the MAX_DUMP_FILE_SIZE to 2,000. It is also possible that OracleDB MP tracing was turned ON and these trace files are the result of the OracleDB MP collector/analyzer running every 5 minutes that generates a new logfile every 5 minutes. To determine if OracleDB MP tracing is turned ON, search for the following line in the configuration 'defaults' file on the managed node:

```
TRACE ON
```

Remove this line if tracing is not required. Besides creating Oracle .trc files, OracleDB MP tracing adds information to the file /var/opt/OV/dbspi/log/trace on UNIX and \\usr\OV\dbspi\log\trace on Windows.

This file size can increase as well. Tracing should only be enabled when debugging a OracleDB MP problem. It should not be enabled during the normal process.

A set of graphs (default) will be launched from this event. See the Dump Devices graph to understand about the performance over a period of time.

E201_OralnstAvailability

Description: Reports uptime information.

Collection interval: VERYHIGH

Policy: OracleDB_0201

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_REPORT / DBSPI_ORA_REPORT

E007_TbISpcStatusCnt

Description: Number of tablespaces not ONLINE.

Collection interval: HIGH

Policy: OracleDB_0007

Aspect: Oracle Tablespace Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: <VALUE> tablespaces not ONLINE in <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The DBA or an automatic database function has placed the tablespace in a status other than ONLINE.

Potential Impact: Failure

Suggested Action(s) : Ensure the tablespace is in correct status (might need recovery).

The automatic action report for this metric lists the status and default storage parameters for all the tablespaces.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E212_SegmentCantExtendCnt

Description: Instance size in MB allocated and free.

Collection interval: LOW

Policy: OracleDB_0212

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_REPORT / DBSPI_ORA_REPORT

E050_RcsvUsrCalRatio

Description: Ratio of recursive calls to user calls.

Collection interval: HIGH

Policy: OracleDB_0050

Aspect: Oracle Transactions (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 15.0

Message Text: Recursive calls to user calls ratio (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The ratio of the recursive calls to the user calls is higher than the set threshold. Triggers, PL/SQL executions, and dynamic space extension.

Potential Impact: Performance

Suggested Action(s) : Review the space management for the tables, indexes, and rollback segments. A set of graphs (default) will be launched from this event. See the Calls graph to understand about the performance over a period of time.

E305_BufferGetsPerExecRatio

Description: SQL statements with high buffer gets per execution for a specific database.

Collection interval: NORUN

Policy: OracleDB_0305

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: Buffer gets per execution (<VALUE>) too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of buffer gets per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for top ten SQL statements with high buffer gets per execution.

E303_SQLScanRows

Description: SQL statements with long table scans for specific database.

Collection interval: NORUN

Policy: OracleDB_0303

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: Rows in a full table scan (<VALUE>) too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements perform a row-by-row scan of a table(s). Inefficient SQL statement(s).

Potential Impact: Physical or logical I/O performance

Suggested Action(s) : If possible, modify the SQL statements to reduce number of row-by-row scans.

The automatic action report for this metric provides detailed information for SQL statements exceeding scanned rows threshold.

E027_LibCachRelodPct

Description: Percentage of library cache misses to run.

Collection interval: HIGH

Policy: OracleDB_0027

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 2.0

Message Text: Library cache reload percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of cache misses (reloads) to run (pins) in the dictionary cache is lower than the set threshold.

Shared Pool is too small.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SHARED_POOL_SIZE if system shared memory and semaphore allocation allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about the performance over a period of time.

E096_ShrdSrvHWMPct

Description: Percentage of highwater to maximum shared server processes.

Collection interval: HIGH

Policy: OracleDB_0096

Aspect: Oracle Shared Server Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 90

Message Text: % of highwater to max shared servers (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage obtained by comparing the number of shared servers ever used (the highwater mark) to the maximum number of shared servers allowed is higher than the set threshold.

Approaching maximum initialization limit for shared servers. Oracle (PMON) automatically adds shared servers from the MTS_SERVERS number of shared servers started at instance startup until the MTS_MAX_SERVERS value is reached.

Potential Impact: Performance

Suggested Action(s) : Increase MTS_MAX_SERVERS

The automatic action report for this metric lists information on the servers such as status, requests, etc.

A set of graphs (default) will be launched from this event. See the Multi-threaded Server graph to understand about performance over a period of time.

E001_DbInstanceStat

Description: Monitors the database status.

Collection interval: VERYHIGH

Policy: OracleDB_0001

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 3.5, CRITICAL / 2.5, CRITICAL / 1.5, CRITICAL / 0.5

Message Text: Rule1: The RAC database <OPTION(rac_name)> is down. [Policy: <NAME>]

Message Text: Rule2: OracleDB MP cannot connect to database <OPTION(dbname)>, may be down; Oracle error [<OPTION(msg)>]. [Policy: <NAME>]

Message Text: Rule3: <OPTION(dbname)> is in restricted mode. [Policy: <NAME>]

Message Text: Rule4: <OPTION(dbname)> has a shutdown pending. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : 1. ORA-01033: A shutdown, shutdown immediate or start command was issued by someone with SYSDBA privileges. As a result, the database is being either shutdown or restarted.

2. ORA-01034: Oracle not started up.

Potential Impact: Performance/Failure

- Suggested Action(s)** : 1. ORA-01033: It may take some time for the database to properly shutdown or start
2. ORA-01034: The SGA requires more space than was allocated. The operating system variable pointing to the instance should be properly defined.

E141_StrmsCaptProcErrs

Description: Monitors the capture processes having errors in an Oracle streams environment.

Collection interval: MEDIUM

Policy: OracleDB_0141

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 2, WARNING / 1

Message Text: Rule1: There are <OPTION(disabled_captures)> DISABLED and <OPTION(aborted_captures)> ABORTED Streams Capture Processes in <OPTION(dbname)> database. [Policy: <NAME>]

Message Text: Rule2: There are <OPTION(disabled_captures)> DISABLED and <OPTION(aborted_captures)> ABORTED Streams Capture Processes in <OPTION(dbname)> database. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : A Streams Capture Process might need to scan the redo logs with a FIRST_CHANGE# value lower than start SCN, when it is started or restarted. If the required redo logs are removed before scanning by a capture process, it causes the capture process to abort.

If a source database in a Streams environment uses the flash recovery area feature of Recovery Manager (RMAN), then there are chances that RMAN might have deleted the archived redo logs that are required by a capture process. When the disk space used by the recovery-related files nears the allotted disk quota of the flash recovery area, RMAN may delete the archived recovery-related files such as redo logs.

If you have configured a real-time downstream capture process, then the process state may have changed to disabled or aborted while waiting for the redo. The wait may be caused due to a problem with the network connection between the source database and the downstream database. The log file transfer method use can also cause problem.

Also, if the disabled or aborted status of a capture process is caused by the database shutdown, then the state is retained even after the database is restarted.

Potential Impact: If a capture process fails to capture the recent changes, then it may affect capturing the current changes to the database, which in turn increases the latency in the data movement to the downstream database.

Failure in keeping the downstream databases current may result in the failure of database recovery, when the changes made to the database objects in a source database which are logged in the redo log does not guarantee recoverability in the event of user error or media failure.

Suggested Action(s) :

Act upon the errors reported by the Automatic Action of this message alarm, for each disabled or aborted capture process.

Restart the disabled capture processes, after correcting the errors.

If a capture process has failed with the error message, 'ORA-01291: missing logfile', then try restoring any missing redo log file and restarting the capture process. You can determine the missing SCN range by querying the dynamic performance view, V\$LOGMNR_LOGS, and add the relevant redo log files.

Increase the disk quota for the flash recovery area, if you are using the flash recovery area feature of Recovery Manager (RMAN) on a source database in a Streams environment. However, it will not always prevent the problem. To overcome the problem permanently, configure the source database to store archived redo logs in a location other than the flash recovery area.

Check your network connection and log file transfer method to ensure that they are working properly, if you have configured a real-time downstream capture process.

E091_NumDsptchrClnts

Description: # clients currently connected to all dispatchers (E091_NumDsptchrClnts)

Collection interval: HIGH

Policy: OracleDB_0091

Aspect: Oracle Shared Server Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 200

Message Text: # of clients connected to dispatchers (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of clients connected to dispatchers is higher than the set threshold.

Dispatchers are currently processing client SQL requests

Potential Impact: Performance

Suggested Action(s) : If numbers of clients connected are above site specific parameters, increase numbers of dispatchers (see metric 0090).

The automatic action report for this metric lists network, status and ownership information on clients connected to dispatchers.

A set of graphs (default) will be launched from this event. See the Multi-threaded Server graph to understand about performance over a period of time.

E041_FulshTblScnRate

Description: Rate at which full table scans (short tables) occur.

Collection interval: HIGH

Policy: OracleDB_0041

Aspect: Oracle Object Faults (Add-on)

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E082_SessHighWatrCnt

Description: Monitors maximum number of sessions since startup.

Collection interval: HIGH

Policy: OracleDB_0082

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 500.0

Message Text: Maximum number of sessions since startup (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The maximum number of sessions since startup (high water mark) is higher than the set threshold.

High database usage.

Potential Impact: Performance and licensing considerations.

Suggested Action(s) : Review license restrictions and initialization parameter settings.

A set of graphs (default) will be launched from this event. See the Sessions graph to understand about performance over a period of time.

E147_CRSListStatus

Description: Monitors CRS NodeApps Listener status.

Collection interval: VERYHIGH

Policy: OracleDB_0147

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 3.5, CRITICAL / 2.5, WARNING / 1.5, WARNING / 0.5

Message Text: Rule1: CRS NodeApps resource <OPTION(resource_name)> is INTERMEDIATE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule2: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE_NOT_RESTARTING on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule3: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule4: CRS NodeApps resource <OPTION(resource_name)> is UNKNOWN on <OPTION(node_name)> [Policy: <NAME>]

Instruction Text:

Probable Cause: * Oracle Clusterware cannot determine the state of the resource but the resource was either attempting to go online or was online the last time its state was precisely known.

* A resource is partially online

Potential Impact: Failure

Suggested Action: * Restart the NodeApps service using SRVCTL tool.

* Check Cluster Ready Services log files.

E111_SessionLatchFreeWaitMax

Description: Monitors sessions with high latch free wait.

Collection interval: MEDIUM

Policy: OracleDB_0111

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Average wait of 'latch free wait' event for Session ID <OPTION(SID)> of <OPTION (Username)>: is <VALUE> seconds. One or more Session has exceeded the threshold of <THRESHOLD> seconds. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Lack of statement reuse

Statements not using bind variables

Cursors closed explicitly after each execution

Frequent logon/logoffs

Underlying object structure being modified (for example truncate)

Shared pool too small

Potential Impact: Performance

Suggested Action(s) :

Check and correct Sessions (in V\$SESSTAT) with high:

- parse time CPU
- parse time elapsed
- Ratio of parse count(hard) / execute count
- Ratio of parse count(total) / execute count

Check and correct Cursors (in V\$SQLAREA/V\$SQL) with:

- High ratio of PARSE_CALLS / EXECUTIONS
- EXECUTIONS = 1 differing only in literals in the WHERE clause (that is, no bind variables used)
- High RELOADS
- High INVALIDATIONS
- Large (> 1mb) SHARABLE_MEM

E006_TbISpFreePctCnt

Description: Monitors number of table spaces with low free space percentage.

Collection interval: MEDIUM

Policy: OracleDB_0006

Aspect: Oracle Tablespace Health (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> tablespaces with free space <OPTION(unit)> too low in <OPTION(dbname)> (<=<OPTION(cli_threshold)><OPTION(unit)>), most serious is <OPTION(tablespace_name)> at <OPTION(value_0006)> <OPTION(unit)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more tablespaces have a free space percentage that is lower than the OracleDB MP metric parameter.

Tablespace needs additional datafile space allocated.

Potential Impact: Failure

Suggested Action(s) : Increase the size of datafile allocated to the tablespace (or set to autoextend) or add a new datafile. If raw disk is used, allocate additional devices.

The automatic action report for this metric lists the total space currently allocated and the percentage of total free space to currently allocated space for all the tablespaces.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

Recommended to understand the space metrics (3/203, 6/206 and 16/216) before using or making changes to them.

E075_RcrsvCursrRatio

Description: Monitors the ratio of recursive calls to cumulative opened cursors.

Collection interval: VERYHIGH

Policy: OracleDB_0075

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 10.0

Message Text: Recursive calls ratio (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The rate of recursive calls to cumulative opened cursors is higher than the set threshold.

Triggers, PL/SQL executions, and dynamic space extension.

Potential Impact: Performance

Suggested Action(s) : Review space management for tables, indexes and rollback segments.

A set of graphs (default) will be launched from this event. See the Calls graph to understand about performance over a period of time.

E030_FullGtblScnRate

Description: Monitors the rate at which full table scans (long tables) occur.

Collection interval: HIGH

Policy: OracleDB_0030

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 1000

Message Text: Full table scan rate (<VALUE>/min) too high for <OPTION(dbname)> (>=<THRESHOLD>/min). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The full table scan rate (long table scans per minute) is higher than the set threshold.

Tables without proper indexing

Potential Impact: Performance

Suggested Action(s) : Add appropriate indexes to tables.

A set of graphs (default) will be launched from this event. See the Tables and Indexes graph to understand about performance over a period of time.

E016_SegmntExtendCnt

Description: Monitors the number of segments that cannot extend.

Collection interval: MEDIUM

Policy: OracleDB_0016

Aspect: Basic Oracle Segment Space

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: <VALUE> segments will not be able to extend in database <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more segments have the potential of not being able to extend.

Value of NEXT, PCTINCREASE in storage clause needs adjustment, or tablespace needs additional space.

Potential Impact: Failure

Suggested Action(s) : Change object's storage clause to modify NEXT and possibly PCTINCREASE in storage clause. Resize datafile(s) or set to autoextend, or add new datafile(s).

The automatic action report for this metric lists segments that cannot extend.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

Recommended to understand the space metrics (3/203, 6/206 and 16/216) before using or making changes to them.

E078_ObjectsInvalidCnt

Description: Monitor the number of invalid objects.

Collection interval: MEDIUM

Policy: OracleDB_0078

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> invalid objects found in database <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Invalid PL/SQL packages or missing dependencies.

Potential Impact: Failure

Suggested Action(s) : Recompile or replace invalid objects.

The automatic action report for this metric shows the invalid objects.

E218_SegExtRapidCnt

Description: Monitor the number of segments adding extents rapidly for a specific segment.

Collection interval: NORUN

Policy: OracleDB_0218

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 95

Message Text: Segment <OPTION(segment_name)> is growing rapidly in <OPTION(dbname)>. Capacity will reach <VALUE>% in one hour (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The reported segment is growing rapidly. At the current growth rate (based on samples performed in previous and current polling interval), the capacity of the segment will reach the reported value in one hour. Please note that this is a projection and capacity values greater than 100% can occur.

NEXT and/or PCTINCREASE in storage clause is set incorrectly and/or heavy data load is taking place.

Potential Impact: Failure

Suggested Action(s) : Increase NEXT in storage clause. Set PCTINCREASE in storage clause to zero.

The operator/user action for this metric generates a metric 18 report showing rapidly growing segments (only applicable if metric 18 is run along with metric 218).

E105_BufferGetsPerExecRatio

Description: Monitor the number of SQL statement with high buffer gets per execution.

Collection interval: MEDIUM

Policy: OracleDB_0105

Aspect: Oracle Query Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: One or more SQL statements with buffer gets per execution too high (>=<THRESHOLD>). Worst offender has <VALUE> buffer gets per execution owned by <OPTION(owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of buffer gets per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for top 10 SQL statements with high buffer gets per execution.

E080_DisbldCnstrtCnt

Description: Monitor the number of disabled constraints.

Collection interval: MEDIUM

Policy: OracleDB_0080

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> disabled constraints found in database <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Disabled by DBA action.

Potential Impact: Failure

Suggested Action(s) : Possibly re-enable constraint, depending on why it was originally disabled.

The automatic action report for this metric shows the disabled constraints.

E047_TablesCachedCnt

Description: Monitor the number of tables cached.

Collection interval: HIGH

Policy: OracleDB_0047

Aspect: Oracle Object Faults (Add-on)

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E065_CoreDumpSpacPct

Description: Monitor the percentage of space used on core dump device.

Collection interval: HIGH

Policy: OracleDB_0065

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 98.0

Message Text: Core dump device used percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of disk space full on the core dump device is higher than the set threshold.

File system full.

Potential Impact: Failure

Suggested Action(s) : Archive any existing and needed core dumps and directories to another file system or tape. Delete unwanted files in file system.

A set of graphs (default) will be launched from this event. See the Dump Devices graph to understand about performance over a period of time.

E019_SortDiskRate

Description: Monitor the disk sort rate.

Collection interval: MEDIUM

Policy: OracleDB_0019

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 25.0

Message Text: Disk sort rate (<VALUE>/hour) is too high for <OPTION(dbname)> (>=<THRESHOLD>/hour). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : There are too many sorts occurring on disk as opposed to in memory.

Initialization parameter SORT_AREA_SIZE configured too low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SORT_AREA_SIZE if shared memory allows.

A set of graphs (default) will be launched from this event. See the Sorts graph to understand about performance over a period of time.

E206_TbISpFreePct

Description: Monitors the table spaces with low free space for a specific tablespace.

Collection interval: NORUN

Policy: OracleDB_0206

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 10

Message Text: Free space <OPTION(unit)> (<VALUE>) too low for <OPTION(tablespace_name)> in database <OPTION(dbname)> (<=<THRESHOLD> <OPTION(unit)>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The reported tablespace currently has a free space percentage that is lower than the configured condition threshold.

Tablespace needs additional datafile space allocated.

Potential Impact: Failure

Suggested Action(s) : Increase the size of datafile allocated to the tablespace (or set to autoextend) or add a new datafile. If raw disk is used, allocate additional devices.

The operator/user action report for this metric lists the total space currently allocated and the percentage of total free space to currently allocated space for all the tablespaces.

Recommended to understand the space metrics (3/203, 6/206 and 16/216) before using or making changes to them.

E059_CursorCachePct

Description: Monitors the percentage of cursors in cache parameter.

Collection interval: HIGH

Policy: OracleDB_0059

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 90.0

Message Text: The session cursor cache percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of the maximum value of session cursor cache count for all current sessions to the initialization parameter SESSION_CACHED_CURSORS is higher than the set threshold.

Initialization parameter SESSION_CACHED_CURSORS needs tuning.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SESSION_CACHED_CURSORS if shared pool memory allocation allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E097_DisbldTblLckNum

Description: Monitors the number of tables with table locks disabled.

Collection interval: HIGH

Policy: OracleDB_0097

Aspect: Oracle Locks & Latches (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 20

Message Text: # of tables with locks disabled (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of tables with table locks disabled is higher than the set threshold.

DBA disabled table locks for Oracle Parallel Server to reduce IDLM locks.

Potential Impact: Performance

Suggested Action(s) : Review tables on which table locks are disabled.

The automatic action report for this metric lists table details with table locks disabled.

E004_UsersTmpDfltCnt

Description: Monitors the number of users w/default tablespace set to SYSTEM.

Collection interval: LOW

Policy: OracleDB_0004

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> users have default/temp tablespace of 'SYSTEM' in <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Users other than those defined by Oracle and any defined in a filter have a default or temporary tablespace set to 'SYSTEM'.

Incorrect user setup or additional Oracle installed usernames present.

Potential Impact: Failure

Suggested Action(s) : Alter temporary and/or default tablespace for user(s) and relocate any resulting misplaced objects out of the SYSTEM tablespace (see OracleDB_0005).

The automatic action report for this metric lists users with temporary or default tablespace set to SYSTEM tablespace.

E083_DbwrCkptrate

Description: Monitors the rate of DBWR checkpoints.

Collection interval: HIGH

Policy: OracleDB_0083

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 3.0

Message Text: DBWR checkpoints rate (<VALUE>/minute) is too high for <OPTION(dbname)> (>=<THRESHOLD>/minute). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Setting of initialization parameter LOG_CHECKPOINT_INTERVAL too low.

Potential Impact: Performance

Suggested Action(s) : Set the value of the initialization parameter LOG_CHECKPOINT_INTERVAL larger than the size of the largest redo log file. Set the value of the initialization parameter LOG_CHECKPOINT_TIMEOUT to 0. This value eliminates the time-based checkpoints. Set initialization parameter CHECKPOINT_PROCESS to true to cause a separate background process to be created to update data file headers instead of the lgwr process.

A set of graphs (default) will be launched from this event. See the Checkpoints graph to understand about performance over a period of time.

E203_TableSpaceFree

Description: Monitors the table spaces with low free space for a specific tablespace.

Collection interval: NORUN

Policy: OracleDB_0203

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 1

Message Text: Free extents (<VALUE>) for tablespace <OPTION(tablespace_name)> too low (<=<THRESHOLD>) for <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : A tablespace has less than or equal to X number of extents (where X is the OVO threshold) available before becoming full.

Tablespace needs additional datafile space allocated.

Potential Impact: Failure

Suggested Action(s) : Increase size of datafile allocated to tablespace (or set to autoextend) or add a new datafile. If raw disk is used, allocate additional devices.

The automatic action report for this metric lists information on extents used and free for all the tablespaces in the database.

Recommended to understand the space metrics (3/203, 6/206 and 16/216) before using or making changes to them.

E018_SegExtRapidCnt

Description: Monitors the number of segments adding extents rapidly.

Collection interval: VERYHIGH

Policy: OracleDB_0018

Aspect: Oracle Segment Space (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> segments are growing rapidly in <OPTION(dbname)> (>=<OPTION(cli_threshold)>%/hour). Most serious growth rate of all segments is <OPTION(value_0018)>%/hour.

[Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more segments are growing at a rate that is higher than the OracleDB MP metric parameter. This metric determines which segments will run out of available space within 1 hour if the growth rate during the current interval (default is 15 minutes) continues. It is possible, therefore, to have a growth rate reported that is higher than 100%. This means that at the current rate, the segment will run out of space in less than one hour.

NEXT and/or PCTINCREASE in storage clause is set incorrectly and/or heavy data load is taking place.

Potential Impact: Failure

Suggested Action(s) : Increase NEXT in storage clause. Set PCTINCREASE in storage clause to zero.

The automatic action report for this metric lists segments that are growing rapidly.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E074_PQQueryRate

Description: Monitors the rate of parallel queries initiated.

Collection interval: MEDIUM

Policy: OracleDB_0074

Aspect: Oracle Parallel Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 50

Message Text: Rate of parallel queries initiated (<VALUE>/minute) too high for <OPTION(dbname)> (>=<THRESHOLD>/minute). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The rate of parallel queries initiated is higher than the set threshold.

This metric shows the rate at which parallel queries are being initiated. It is informational only and has no meaningful absolute threshold, varying by installation and query mix.

Potential Impact: If lower than expected, could affect overall performance

Suggested Action(s) : If lower than expected, review degree of parallelization expected for selected queries, review parallelization initialization parameters.

A set of graphs (default) will be launched from this event. See the Parallel Query Option graph to understand about performance over a period of time.

E126_DGLogGapDetection

Description: Monitors the number of hours archived files have not been sent to the standby databases.

Collection interval: HIGH

Policy: OracleDB_0126

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> number of hours archived files have not been sent to the standby databases since created. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more archived files not transferred.

Network, or hardware problem.

Potential Impact: Availability of Primary Database.

Suggested Action(s) : Identify archived files on Primary Database and copy to Standby Databases.

E312_SessionSuspendedMax

Description: Monitors a specific session with high suspended time.

Collection interval: NORUN

Policy: OracleDB_0312

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Session ID <OPTION(SID)> of <OPTION(Username)>: is suspended for last <VALUE> minutes. Threshold is <THRESHOLD>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Mostly space allocation failure

Potential Impact: Session will be suspended

Suggested Action(s) : Correct the space problem before time out so that session can resume. If this error involves a temporary tablespace, other user sessions can result in the release of temporary segments in the tablespace, thus freeing space for the suspended session.

E062_BkgrDumpSpcePct

Description: Monitors the percentage of space used on background dump device.

Collection interval: HIGH

Policy: OracleDB_0062

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: CRITICAL / 98.0

Message Text: Background dump device used percentage (<VALUE>%) too high for <OPTION (dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of disk space full on the background dump device is higher than the set threshold. File system full.

Potential Impact: Failure

Suggested Action(s) : Archive any existing and needed trace files to another file system or tape. Delete unwanted files in the file system. Limit size of trace files with the initialization parameter MAX_DUMP_FILE_SIZE specified in Operating System blocks (normally 512 bytes). For example, if your logical file system block size is 512 bytes and you do not want to exceed 1 MB for the trace file size, you can set the MAX_DUMP_FILE_SIZE to 2,000. It is also possible that OracleDB MP tracing was turned ON and these trace files are the result of the OracleDB MP collector/analyzer running every 5 minutes that generates a new logfile every 5 minutes. To determine if the OracleDB MP tracing has been turned ON, search for the following line in the configuration 'defaults' file on the managed node:

```
TRACE ON
```

Remove this line if tracing is not required. Along with creating Oracle .trc files, OracleDB MP tracing adds information to the file /var/opt/OV/dbspi/log/trace on UNIX and \\usr\OV\dbspi\log\trace on Windows. This file size can increase as well. Tracing should only be enabled when debugging a OracleDB MP problem. It should not be enabled during normal processing.

The annotations for this message contains an automatic command report which shows the disk space utilization on the drive that contains the dump device.

A set of graphs (default) will be launched from this event. See the Dump Devices graph to understand about performance over a period of time.

E102_SQLFetchesMax

Description: Monitors the SQL statements with high fetches.

Collection interval: MEDIUM

Policy: OracleDB_0102

Aspect: Oracle Query Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 150

Message Text: One or more SQL statements with fetches per execution too high (>=<THRESHOLD>). Worst offender has <VALUE> fetches per execution owned by <OPTION(owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of fetches per execution. SQL statement with high number of fetch operations.

Potential Impact: Performance

Suggested Action(s) : Modify SQL statement(s), if possible, to reduce number of fetch operations, or increase the threshold to avoid triggering an alarm.

The automatic action report for this metric provides detailed information for SQL statements exceeding max allowed fetch threshold.

E122_GlobalCacheBlockLostMax

Description: Monitor the number of blocks that got lost during interconnect.

Collection interval: MEDIUM

Policy: OracleDB_0122

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> of blocks that got lost during interconnect in one instance. One or more instance has encountered block corruption during interconnect. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more blocks are lost during transfer.

May be network or hardware problem.

Potential Impact: Performance

Suggested Action(s) : Check the network for dropped packets, re-tires, errors, or send/receive buffer overflows. Some nodes in your Real Application Clusters database may be very loaded and busy. Therefore, search for high CPU usage, long run queues, and memory shortages as indicated by excess paging and swapping.

E035_BckgndCkptRate

Description: Monitor the rate of background checkpoints completed.

Collection interval: HIGH

Policy: OracleDB_0035

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: Background checkpoint rate (<VALUE>/minute) too high for <OPTION(dbname)> (>=<THRESHOLD>/minute). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The rate at which background checkpoints have completed is higher than the set threshold.

Setting of initialization parameter LOG_CHECKPOINT_INTERVAL too low.

Potential Impact: Performance

Suggested Action(s) : Set the value of the initialization parameter LOG_CHECKPOINT_INTERVAL larger than the size of the largest redo log file. Set the value of the initialization parameter LOG_CHECKPOINT_TIMEOUT to 0. This value eliminates the time-based checkpoints. Set the initialization parameter CHECKPOINT_PROCESS to true to cause a separate background process to be created to update data file headers instead of the lgwr process.

A set of graphs (default) will be launched from this event. See the Checkpoints graph to understand about performance over a period of time.

E029_SessWaitLckCnt

Description: Monitors the number of sessions waiting for release of a lock.

Collection interval:

Policy: OracleDB_0029

Aspect: Basic Oracle Locks & Latches

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> sessions waiting for release of a lock for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of sessions waiting for release of a lock is higher than the set threshold.

Contention between processes for the same database object.

Potential Impact: Performance

Suggested Action(s) : See the automatic action report which shows who holds the lock, the object and who is waiting. From this report, determine if the applications that is holding the lock should be rewritten or if this is a normal condition.

The automatic action for this metric shows a report with the following information:

WAIT_SID: Waiting Session ID

LOCK: Type of lock

WAIT_OS_USER: Waiting OS user

WAIT_USERNAME: Waiting Oracle user

WAIT_TIME: Waiting time

HOLD_SID: Blocking Session ID

HOLD_OS_USER: Blocking OS user

HOLD_USERNAME: Blocking Oracle user

LOCK_TYPE: Lock mode in which the blocking session holds the lock

HOLD_TIME: Blocking time - the time since holding current lock mode was granted.

KILL_STRING: Kill string - the string can be used in 'ALTER SYSTEM KILL SESSION <& Kill string>' to kill the blocking session.

A set of graphs (default) will be launched from this event. See the Waits graph to understand about performance over a period of time.

E213_TablespaceIO

Description: Number of physical reads and writes to the disk since the last collection for each tablespace.

Collection interval: LOW

Policy: OracleDB_0213

Aspect: Oracle IO Performance

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_REPORT / DBSPI_ORA_REPORT

E086_PhysReadsRate

Description: Monitors the number of physical reads per minute.

Collection interval: HIGH

Policy: OracleDB_0086

Aspect: Oracle IO Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 100

Message Text: The number of physical reads per minute (<VALUE>) for <OPTION(dbname)> is too high. [Policy: <NAME>]

Instruction Text:

Probable Cause: The number of physical reads is too high.

Potential Impact: Performance

Suggested Action: Determine whether the SQL statements in the application read much more data than is actually required for processing (tablescans or disadvantageous search strategies).

E023_CurBufCacHitPct

Description: Monitors the percentage of cache hit in the current buffer.

Collection interval: HIGH

Policy: OracleDB_0023

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 60.0, WARNING / 70.0

Message Text: Rule1: Current buffer cache hit percentage (<VALUE>%) too low for <OPTION(dbname)> > (<=<THRESHOLD>%). [Policy: <NAME>]

Message Text: Rule2: Current buffer cache hit percentage (<VALUE>%) too low for <OPTION(dbname)> > (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The current percentage of buffer cache reads to physical reads is lower than the set threshold.

Initialization parameter DB_BLOCK_BUFFERS set too low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter DB_BLOCK_BUFFERS if shared memory allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E045_ShrdPoolFreePct

Description: Monitors the percentage of free pool memory.

Collection interval: HIGH

Policy: OracleDB_0045

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 1.0, WARNING / 5.0

Message Text: Rule1: Shared pool memory free percentage (<VALUE>%) too low for <OPTION (dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Message Text: Rule2: Shared pool memory free percentage (<VALUE>%) too low for <OPTION (dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of free memory to total shared pool memory is lower than the threshold.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SHARED_POOL_SIZE if system shared memory and semaphore allocation allows.

The automatic action report for this metric lists the detail usage of shared pool.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E140_StrmsPoolOptSize

Description: Reports the estimated optimum size proposed for oracle streams pool.

Collection interval: MEDIUM

Policy: OracleDB_0140

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 50, WARNING / 30

Message Text: Rule1: Optimum Streams pool size required for <OPTION(dbname)> is about <VALUE>% (>= <THRESHOLD>) higher than the current configuration. Current Streams Pool Size: <OPTION(current_pool_size)> MB, Optimum Streams Pool Size: <OPTION(estimated_pool_size)> MB. [Policy: <NAME>]

Message Text: Rule2: Optimum Streams pool size required for <OPTION(dbname)> is about <VALUE>% (>= <THRESHOLD>) higher than the current configuration. Current Streams Pool Size: <OPTION(current_pool_size)> MB, Optimum Streams Pool Size: <OPTION(estimated_pool_size)> MB. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : A portion of memory in the System Global Area (SGA) is used as Oracle Streams Pool. The Oracle Streams pool is used to store the messages of buffered queue in memory, and is used by capture and apply processes. It is used to store LCRs captured by a capture process. Also to store messages and LCRs that are enqueued into a buffered queue by applications.

The requirement for the Streams Pool Size varies based on the volume of the messages and the amounts of memory required by various stream processes, such as capture and apply depending on the data volumes. Thus the optimum Streams Pool size required becomes larger based on the estimated message spill count and the estimated memory requirements for various stream activities.

Potential Impact:

- Messages spill over
- Failure in capture or apply processes

Suggested Action(s) :

The Oracle Streams pool size can be configured in one of the following ways:

Using Automatic Memory Management:

When the MEMORY_TARGET or MEMORY_MAX_TARGET initialization parameter is set to a non-zero value, the Oracle Streams Pool Size is automatically managed. However, you can still set the following initialization parameters:

* SGA_TARGET: When this is set to a non-zero value, the same value is used as a minimum for the system global area (SGA).

* STREAMS_POOL_SIZE: When this is set to a non-zero value, the same value is used as a minimum for the Oracle Streams pool.

Using the Automatic Shared Memory Management:

The Oracle Streams pool size is automatically managed when the initialization parameters:

* MEMORY_TARGET and MEMORY_MAX_TARGET are both set to 0 (zero).

* SGA_TARGET parameter is set to a nonzero value.

However, if the initialization parameter, STREAMS_POOL_SIZE is also set to a non-zero value, then the value set is used as a minimum for the Oracle Streams pool.

Manually Setting the Oracle Streams Pool Size:

The Oracle Streams pool size can be manually configured by the value specified by the initialization parameter, STREAMS_POOL_SIZE (in bytes) when the following initialization parameters:

* MEMORY_TARGET, MEMORY_MAX_TARGET, and SGA_TARGET are all set to 0 (zero).

* STREAMS_POOL_SIZE is set to a non-zero value.

Using the Default Setting:

By default, the Oracle Streams pool size is set, when all the following parameters are set to 0 (zero):

MEMORY_TARGET, MEMORY_MAX_TARGET, SGA_TARGET, and STREAMS_POOL_SIZE

Note:

The error, ORA-00832 occurs, when the Oracle Streams pool size cannot be initialized. Then, first ensure that SGA has enough space for the Oracle Streams pool. If necessary, increase the SGA size by resetting the initialization parameter, SGA_MAX_SIZE. Secondly, set one or more of the initialization parameter, SGA_TARGET, MEMORY_TARGET, MEMORY_MAX_TARGET, and STREAMS_POOL_SIZE.

E085_TransactionPct

Description: Monitors the percentage of current transactions to configured.

Collection interval: HIGH

Policy: OracleDB_0085

Aspect: Oracle Transactions (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 90.0

Message Text: Current transactions percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Increased load, change in database usage.

Potential Impact: Failure

Suggested Action(s) : Increase initialization parameter TRANSACTIONS.

A set of graphs (default) will be launched from this event. See the Initialization Limits graph to understand about performance over a period of time.

E051_SortRowsAvgCnt

Description: Monitors the average number of rows per sort.

Collection interval: HIGH

Policy: OracleDB_0051

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E032_RedoLgSpcReqCnt

Description: Monitors the number of waits for redo log space.

Collection interval: HIGH

Policy: OracleDB_0032

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 20.0

Message Text: Redo log space request count (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of waits for redo log space is higher than the set threshold.

Log files that are small in relation to the size of the SGA or the commit rate of the work load.

Potential Impact: Performance

Suggested Action(s) : Tune checkpoints, DBWR, or archive activity.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about performance over a period of time.

E130_DGHrsSinceArchLogsRecieved

Description: Monitors the number of hours since the latest time stamp in the redo received on the Logical standby databases.

Collection interval: HIGH

Policy: OracleDB_0130

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.0

Message Text: <VALUE> number of hours since the latest time stamp in the redo received on the Logical Standby databases since created. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Number of hours since the last time stamp redo was received on Logical Standby Database Instance. Network or hardware problem.

Potential Impact: Availability of Primary Database.

Suggested Action(s) : Identify archived files on Primary Database and copy to Standby Databases.

E039_LibCacGetHitPct

Description: Monitors the percentage of gethits to gets in dictionary cache.

Collection interval: HIGH

Policy: OracleDB_0039

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 95.0

Message Text: Library cache gethits percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of gethits to gets in dictionary cache is lower than set OVO threshold. It may be common for this metric to alarm immediately after a database is started (or restarted) because the cache has not been filled yet.

Shared Pool too small.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SHARED_POOL_SIZE if system shared memory and semaphore allocation allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E143_StrmsApplyProcErrs

Description: Monitors the apply processes having errors in an oracle streams environment.

Collection interval: MEDIUM

Policy: OracleDB_0143

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 2, WARNING / 1

Message Text: Rule1: There are <OPTION(disabled_applies)> DISABLED and <OPTION(aborted_applies)> ABORTED Streams Apply Processes in <OPTION(dbname)> database. [Policy: <NAME>]

Message Text: Rule2: There are <OPTION(disabled_applies)> DISABLED and <OPTION(aborted_applies)> ABORTED Streams Apply Processes in <OPTION(dbname)> database. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : An apply process may not restart, if it did not shut down cleanly.

An apply process disabled during database shutdown is retained in the same state after database restart.

A wrong message resulted in the apply process, when it is configured to apply the other type of messages.

An apply process is not receiving messages in its queue due to problems in the capture process or the propagation near the capture process.

An apply process may not work as expected due to incorrect custom-apply-handlers.

An apply process aborts if there is no sufficient privilege to execute the apply handler procedures.

An apply process may fail to apply the messages if the initialization parameter AQ_TM_PROCESSES, that controls time monitoring on queue messages and controls processing of messages with delay and expiration properties specified, is set to zero.

Potential Impact:

If an apply process fails to apply the recent changes to the destination database, then it may result in falling behind applying the current changes made to the source database, which in turn will give rise to the latency in data movement from the source to the destination database.

Failure in keeping the downstream databases current might result in the failure of database recovery, when the changes made to the database objects in a source database which are logged in the redo log does not guarantee recoverability in the event of user error or media failure.

Suggested Action(s) :

Diagnose and correct the apply process errors as reported by the automatic action command of this alarm message and try restarting the apply process.

If you encounter the error message, 'ORA-26666 cannot alter STREAMS process', then run the STOP_APPLY procedure in the DBMS_APPLY_ADM package with the force parameter set to true and restart the apply process.

Create a new apply process configuring the right type of the message, if it is not applying the expected type of messages.

Check if there is a problem with the capture process or the propagation near the capture process and correct them, when messages are not received in the apply process queue.

Modify or remove the custom-apply-handler procedures, if they are causing the apply errors.

If the parameter AQ_TM_PROCESSES is set to zero, then modify this parameter value to a non-zero value.

Grant the required EXECUTE privileges for the streams user, if the problem is due to insufficient privilege on the apply handler procedures.

E216_SegmntExtendCnt

Description: Monitors number of segments that cannot extend in a particular database.

Collection interval: NORUN

Policy: OracleDB_0216

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: CRITICAL / 100

Message Text: Number of extents (<VALUE>) left for <OPTION(segment_name)> in tablespace <OPTION(tablespace_name)> too low (<=<THRESHOLD> and <=<OPTION(cli_threshold)>) for database <OPTION(dbname)>. <OPTION(reason)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : This metric reports the number of extents left for each segment and will alarm if the number of extents is less than or equal to command line threshold AND the OVO threshold.

The reported segment has the potential of not being able to extend (grow).

Value of NEXT, PCTINCREASE in storage clause needs adjustment, or tablespace needs additional space.

Potential Impact: Failure

Suggested Action(s) : Change object's storage clause to modify NEXT and possibly PCTINCREASE in storage clause. Re-size datafile(s) or set to auto-extend, or add new datafile(s).

The operator/user action for this metric generates a report showing segments that will not extend.

Recommended to understand the space metrics (3/203, 6/206 and 16/216) before using or making changes to them.

E309_SessionHardParsesMax

Description: Monitors a specific session with high no of hard parses.

Collection interval: NORUN

Policy: OracleDB_0309

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 10.00

Message Text: Session ID <OPTION(SID)> of <OPTION(Username)>: has <VALUE> percentage of hard parses to total parses. Threshold is <THRESHOLD> [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Size of the shared pool is not enough.

Potential Impact: Query running slower than expected.

Suggested Action(s) : Increase the size of shared pool.

E079_DisbldTrigrsCnt

Description: Monitors the number of disabled triggers.

Collection interval: MEDIUM

Policy: OracleDB_0079

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> disabled triggers found in database <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Disabled by DBA action.

Potential Impact: Failure

Suggested Action(s) : Where appropriate enable triggers.

The automatic action report for this metric shows the disabled triggers.

E081_SnapshotErrCnt

Description: Monitors the number of snapshot errors.

Collection interval: MEDIUM

Policy: OracleDB_0081

Aspect: Oracle Object Faults (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> snapshot errors found in database <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Communication error, space management or other database error.

Potential Impact: Failure

Suggested Action(s) : Investigate error(s).

The automatic action report for this metric shows the snapshot errors.

E133_DskGrpStatCnt

Description: Monitors the number of non-mounted ASM diskgroups.

Collection interval: HIGH

Policy: OracleDB_0133

Aspect: Oracle ASM Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> diskgroups not MOUNTED in ASM instance <OPTION(dbname)>. Associated <OPTION(instances)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The reported ASM diskgroup has state that is different from MOUNTED.

The diskgroup is not used by any database instances and the DBA dismount it.

Potential Impact: Failure

Suggested Action(s) : Ensure ASM diskgroup in correct state.

The automatic action report for this metric lists the name and the state for all diskgroups.

E052_SortTotalRate

Description: Monitors the rate of total sorts on disk and in memory.

Collection interval: MEDIUM

Policy: OracleDB_0052

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 100.0

Message Text: Total sort rate (<VALUE>/minute) too high for <OPTION(dbname)> (>=<THRESHOLD>/minute). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The rate of total sorts (disk and memory) is higher than the set threshold.

Heavy database query load.

Potential Impact: Performance

Suggested Action(s) : Review initialization parameters SORT_AREA_SIZE, SORT_AREA_RETAINED_SIZE.

A set of graphs (default) will be launched from this event. See the Sorts graph to understand about performance over a period of time."

E106_SQLElapsedTimeMax

Description: Monitors the SQL statement with high elapsed time per execution.

Collection interval: MEDIUM

Policy: OracleDB_0106

Aspect: Basic Oracle Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1

Message Text: One or more SQL statements with elapsed time per execution too high (>=<THRESHOLD>). Worst offender has <VALUE> seconds elapsed time per execution owned by <OPTION(owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high elapsed time per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for top ten SQL statements with high elapsed time per run.

E048_ChandRowFtchPct

Description: Monitors the percentage of chained rows fetched.

Collection interval: HIGH

Policy: OracleDB_0048

Aspect: Oracle Object Faults (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 10.0

Message Text: Chained rows fetched percentage (<VALUE>%) too high for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of chained rows fetched to total is higher than OVO set threshold.

Table data block space usage parameters PCTFREE, PCTUSED need adjustment, table(s) need reorganization.

Potential Impact: Performance

Suggested Action(s) : Adjust data block space usage parameters PCTFREE, PCTFREE to affect future storage. To remedy current row chaining, reorganize tables with higher percentages of chained rows.

A set of graphs (default) will be launched from this event. See the Tables and Indexes graph to understand about performance over a period of time.

E044_CommitRate

Description: Monitors the number of transactions.

Collection interval: VERYHIGH

Policy: OracleDB_0044

Aspect: Oracle Transactions (Add-on)

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E043_EQTimeoutReqPct

Description: Monitors the percentage of enqueue timeouts to enqueue requests.

Collection interval: HIGH

Policy: OracleDB_0043

Aspect: Basic Oracle Locks & Latches

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 1.0

Message Text: Enqueue timeouts to requests percentage (<VALUE>%) too high for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of enqueue timeouts to enqueue requests is higher than set OVO threshold.

Contention

Potential Impact: Performance

Suggested Action(s) : Investigate the contention area using V\$SYSSTAT, V\$SESSTAT, V\$SYSTEM_EVENT, V\$LOCK, V\$SESSION_WAIT, X\$KSQST tables or increase initialization parameter ENQUEUE_RESOURCES.

A set of graphs (default) will be launched from this event. See the Waits graph to understand about performance over a period of time.

E066_AlertLogSize

Description: Monitors the size in MB of alert log.

Collection interval: MEDIUM

Policy: OracleDB_0066

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 5.0

Message Text: Alert log size (<VALUE> MB) too big for <OPTION(dbname)> (>=<THRESHOLD> MB).
[Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The alert log file has grown unwieldy in size.

Inattention

Potential Impact: Difficulty in reviewing log entries.

Suggested Action(s) : Rename alert file or move to a sub-directory.

The automatic action report for this metric lists file information about the alert log and its file system and prints the last 250 lines of the alert log.

A set of graphs (default) will be launched from this event. See the Dump Devices graph to understand about performance over a period of time.

E210_TbISpaceFreePct

Description: Monitors the tablespace size in MB allocated and free.

Collection interval: LOW

Policy: OracleDB_0210

Aspect: Oracle Tablespace Health

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_REPORT / DBSPI_ORA_REPORT

E146_CRSVirtIPStatus

Description: Monitors the CRS NodeApps Virtual IP status.

Collection interval: VERYHIGH

Policy: OracleDB_0146

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 3.5, CRITICAL / 2.5, WARNING / 1.5, WARNING / 0.5

Message Text: Rule1: CRS NodeApps resource <OPTION(resource_name)> is INTERMEDIATE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule2: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE_NOT_RESTARTING on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule3: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule4: CRS NodeApps resource <OPTION(resource_name)> is UNKNOWN on <OPTION(node_name)> [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : * Oracle Clusterware cannot determine the state of the resource but the resource was either attempting to go online or was online the last time its state was precisely known.

* A resource is partially online.

Potential Impact: Failure

Suggested Action(s) :* Restart the NodeApps service using SRVCTL tool.

* Check Cluster Ready Services log files.

E112_SessionSuspendedMax

Description: Monitors the sessions with high suspended time.

Collection interval: MEDIUM

Policy: OracleDB_0112

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Session ID <OPTION(SID)> of <OPTION(Username)>: is suspended for last <VALUE> minutes. One or more Session has exceeded the threshold of <THRESHOLD> minutes [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Mostly space allocation failure

Potential Impact: Session will be suspended

Suggested Action(s) : Correct the space problem before time out so that session can resume. If this error involves a temporary tablespace, other user sessions can result in the release of temporary segments in the tablespace. Thus, freeing space for the suspended session.

E119_HeavySQLNum

Description: Monitors the number of heavy SQL statements.

Collection interval: MEDIUM

Policy: OracleDB_0119

Aspect: Basic Oracle Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 10

Message Text: <VALUE> heavy SQL statements (rows_scanned/executions\\>=<OPTION(cli_threshold)>) for <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause: The number of heavy SQL statements is too high. SQL statement is heavy if number of rows scanned per execution is more than specified threshold.

Potential Impact: Performance

Suggested Action: Optimise the heavy SQL statements by creating SQL profiles, restructuring SQL statements, creating additional indexes or materialized views, others.

E057_ArchiveFreqRate

Description: Monitors the average time in minutes between archive log writes.

Collection interval: LOW

Policy: OracleDB_0057

Aspect: Oracle Archive Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 5.0

Message Text: Archive log writes frequency rate (<VALUE> minute(s)) is too low for <OPTION (dbname)> (<=<THRESHOLD> minute(s)). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The average time in minutes between archive log writes for the last N days (where N is a metric parameter passed on the command line) is lower than the set threshold.

Hot backups in process (normal); redo logs too small; unusual database activity.

Potential Impact: Performance

Suggested Action(s) : Investigate size of redo logs for possible enlargement.

The automatic action report for this metric lists N days of archive redo log statistics, where N is the metric parameter passed on the command line.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about performance over a period of time.

E137_DGFSFailoverMonitoring

Description: Monitors the fast-start fail over has occurred.

Collection interval: HIGH

Policy: OracleDB_0137

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: Fast-start failover has occurred at <OPTION(fsfo_time)> because of <OPTION(fsfo_reason)>. The new primary database is <OPTION(primary_db)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Fast-start failover has occurred because of non-availability of primary database.

Potential Impact: Data loss.

Suggested Action(s) : Make sure that old primary database is reinstated as new standby database.

E011_TbISpcFrgmntCnt

Description: Monitors the number of fragmented tablespaces.

Collection interval: HIGH

Policy: OracleDB_0011

Aspect: Oracle Tablespace Health (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> fragmented tablespaces in <OPTION(dbname)>, most serious is <OPTION(tablespace_name)> at <OPTION(value_0011)> fragments. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more tablespaces have fragmented free space worse than the value specified in the metric parameter.

Fragmentation

Potential Impact: Performance

Suggested Action(s) : Issue SQL 'Alter tablespace xx coalesce', increase default PCTINCREASE in tablespace storage clause if zero (PCTINCREASE = 1 recommended) to cause SMON to automatically coalesce tablespaces.

The automatic action report generates a list of all tablespaces and the number of fragments in each tablespace.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E311_SessionLatchFreeWaitMax

Description: Monitors a specific session with high latch free wait.

Collection interval: NORUN

Policy: OracleDB_0311

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Average wait of 'latch free wait' event for Session ID <OPTION(SID)> of <OPTION (Username)>: is <VALUE> seconds. Threshold is <THRESHOLD>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Lack of statement reuse; Statements not using bind variables; Cursors closed explicitly after each execution; Frequent logon/logoffs; Underlying object structure being modified (for example truncate); Shared pool too small

Potential Impact: Performance

Suggested Action(s) : Check and correct Sessions (in V\$SESSTAT) with high:

parse time CPU

parse time elapsed

Ratio of parse count(hard) / execute count

Ratio of parse count(total) / execute count

Check and correct Cursors (in V\$SQLAREA/V\$SQL) with:

High ratio of PARSE_CALLS /EXECUTIONS

EXECUTIONS = 1 differing only in literals in the WHERE clause (that is, no bind variables used)

High RELOADS

High INVALIDATIONS

Large (> 1mb) SHARABLE_MEM"

E003_TbISpaceFreeCnt

Description: Monitors the number of table spaces with free extents low.

Collection interval: HIGH

Policy: OracleDB_0003

Aspect: Oracle Tablespace Health (Add-on)

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> tablespaces with free space too low in <OPTION(dbname)> (<=<OPTION(cli_threshold)> extents before being full). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more tablespaces has less than or equal to X number of extents (where X is specified in the OracleDB MP metric parameter) available before becoming full.

Tablespace needs additional datafile space allocated.

Potential Impact: Failure

Suggested Action(s) : Increase size of datafile allocated to tablespace (or set to auto-extend) or add a new datafile. If raw disk is used, allocate additional devices.

The automatic action report for this metric lists information on extents used and free for all the tablespaces in the database.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E071_PQSrvHighwtrPct

Description: Monitors the percentage of parallel query servers busy highwatermark.

Collection interval: MEDIUM

Policy: OracleDB_0071

Aspect: Oracle Parallel Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 75

Message Text: % of busy highwatermark to max Parallel Query Servers (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The Parallel Query Servers busy highwater mark as a percentage of maximum servers is higher than the set OVO threshold.

Initialization parameter PARALLEL_MAX_SERVERS set too low.

Potential Impact: Queries that are candidates for parallelization ('parallel hint' or PARALLEL declaration in schema object, plus a full table scan or multiple partition index range scan) are not parallelized or return an error (if initialization parameter PARALLEL_MIN_PERCENT is set and in absence of overriding hint - see Oracle Server Tuning guide)

Suggested Action(s) : Increase value of initialization parameter PARALLEL_MAX_SERVERS, if possible. Recommended value is 2 * CPUs * number_of_concurrent_users.

The automatic action report for this metric shows the overall server statistics (such as servers busy, idle, sessions, etc.) and information on the slave servers (such as status, sessions, CPU seconds).

A set of graphs (default) will be launched from this event. See the Parallel Query Option graph to understand about performance over a period of time.

E107_SQLCPUTimeMax

Description: Monitors the SQL statement with high CPU time per run.

Collection interval: MEDIUM

Policy: OracleDB_0107

Aspect: Basic Oracle Query Performance

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 1

Message Text: One or more SQL statements with CPU time per execution too high (\geq <THRESHOLD>). Worst offender has <VALUE> seconds CPU time per execution owned by <OPTION(owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high CPU time per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for top ten SQL statements with high CPU time per run.

E021_BufferBusyPct

Description: Monitors the percentage of buffer busy waits to logical reads.

Collection interval: HIGH

Policy: OracleDB_0021

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 3.0

Message Text: Buffer busy percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of buffer busy waits to logical reads is too high.

Freelist or rollback segment contention.

Potential Impact: Performance

Suggested Action(s) : If rollback segment metrics show no contention, cause is probably table freelist. Increase freelist on selected tables (see metric OracleDB_0024).

A set of graphs (default) will be launched from this event. See the Waits graph to understand about performance over a period of time.

E108_SQLFullTableScanMax

Description: Monitors the SQL statements performing Full table scan.

Collection interval: MEDIUM

Policy: OracleDB_0108

Aspect: Basic Oracle Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 100.00

Message Text: Full table scan by <OPTION(Owner)>: on <OPTION(Name)> having no of rows <VALUE>; One or more SQL statements exceeded the threshold of <THRESHOLD> rows. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statement has performed full table scan.

Incorrect query. Joining condition missing.

Potential Impact: Query running slower than expected.

Suggested Action(s) : Review the SQL statement.

E049_UserCallRate

Description: Monitors the rate of user calls.

Collection interval: HIGH

Policy: OracleDB_0049

Aspect: Oracle Transactions (Add-on)

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E150_CRSVIPRelocStatus

Description: Monitoring Oracle RAC VIP Relocation of a node.

Collection interval: VERYHIGH

Policy: OracleDB_0150

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: RAC VIP resource in node <OPTION(local_node)> has relocated from <OPTION(prev_located_node)> to <OPTION(curr_located_node)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : CRS daemon (crsd) is not running in a previous located node.

Listener could be down in previous located Node

The value of failure count is higher than the failure threshold of the resource and therefore it is not able to restart itself

The RAC VIP addresses are not on the same subnet as the public host network addresses. Each Virtual IP (VIP) configured requires an unused and resolvable IP address.

Potential Impact: Performance/RAC node availability

Suggested Action(s) : Restart the NodeApps service using SRVCTL tool.

Check Cluster Ready Services log files. Log files for the CRS daemon (crsd) can be found in the following directories:

ORA_CRS_HOME/crs/init

ORA_CRS_HOME/crs/log/<node name>/crsd

E132_FileWithMaxTransferRate

Description: Monitors the datafile(s) of cluster database with highest sum of rate of transfer for consistent read blocks as well as current blocks.

Collection interval: MEDIUM

Policy: OracleDB_0132

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1000

Message Text: Instance <OPTION(dbname)> file <OPTION(FILE_NAME)> has transfer rate <VALUE>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Datafiles with highest sum of rate of tranfer.

Location of objects of the file causing excess transfer of blocks between instances.

Potential Impact: Performance

Suggested Action(s) : Verify the use of Oracle hash or range partitioning.

E131_GlobalCacheCurBlockRecTime

Description: Monitors the number of current blocks that got received during interconnect.

Collection interval: HIGH

Policy: OracleDB_0131

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: Instance <OPTION(dbname)> received <VALUE> current blocks in the last collection interval. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Time waited for consistent read per block is too High.

High system load, using a public interconnect instead of a private network, network errors, or poor CPU utilization by the LMS processes.

Potential Impact: Performance

Suggested Action(s) : Monitor object statistics to identify the database objects with remote concurrent writes and the SQL statements causing this.

E005_ObjectsForeignCnt

Description: Monitors the number of foreign objects in SYSTEM tbslspc.

Collection interval: LOW

Policy: OracleDB_0005

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> foreign objects found in SYSTEM tablespace for <OPTION(dbname)>.
[Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Objects in system tablespace are not owned by an Oracle installed username (i.e. SYS, SYSTEM, DBSNMP, SCOTT, etc.) or those defined in a filter.

Potential Impact: Fragmentation and/or lack of space in system tablespace.

Suggested Action(s) : Schedule a time to export, drop and recreate the object in a different tablespace.
Note: Oracle installer might create objects in system tablespace not owned by one of the above usernames.

Check to make sure the owner of the object(s) is not an Oracle-installed username.

The automatic action report for this metric lists objects found in the SYSTEM tablespace that are not owned by the Oracle installed usernames.

E054_RollbackRate

Description: Monitors the rate at which rollbacks are being generated .

Collection interval: HIGH

Policy: OracleDB_0054

Aspect: Oracle Transactions (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 50.0

Message Text: Rollbacks generation rate (<VALUE>/minute) too high for <OPTION(dbname)> (>=<THRESHOLD>/minute). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The rate at which rollbacks are being generated is higher than the set threshold.

Programmatic design issues.

Potential Impact: None

Suggested Action(s) : Review applications to ensure rollback volume is normative.

A set of graphs (default) will be launched from this event. see the RollBacks Generated graph to understand about performance over a period of time.

E056_ArchvFreeSpcCnt

Description: Monitors the number of archive logs that fit in the archive device.

Collection interval: LOW

Policy: OracleDB_0056

Aspect: Oracle Archive Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 10.0

Message Text: Archive logs that can fit in archive device <OPTION(adest)> (<VALUE>) is too low for <OPTION(dbname)> (<=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The number of archive logs that can fit in the archive device is lower than the set threshold.

File system full, either due to activity by other users or because archived redo logs are not being deleted after backup.

Potential Impact: Failure

Suggested Action(s) : Free up space on archival device, backup archived logs to tape or other device to avoid failure of archiving process and subsequent suspending of all database activity.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about performance over a period of time.

E033_RedoAlocLtchPct

Description: Monitors the percentage of redo allocation latch misses.

Collection interval: HIGH

Policy: OracleDB_0033

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 1.0

Message Text: Redo allocation latch percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of misses to gets OR immediate misses to immediate gets on the redo allocation latch is higher than the set threshold.

Redo contention

Potential Impact: Performance

Suggested Action(s) : To reduce contention for the redo allocation latch, you should minimize the time that any single process holds the latch. To reduce this time, reduce copying on the redo allocation latch. Decreasing the value of the initialization parameter LOG_SMALL_ENTRY_MAX_SIZE reduces the number and size of redo entries copied on the redo allocation latch.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about the performance over a period of time.

E145_StrmsCapToAppLatency

Description: Monitors the number of messages having capture to apply latency higher than the specified threshold in an oracle streams environment.

Collection interval: MEDIUM

Policy: OracleDB_0145

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1

Message Text: There are <VALUE> (>= <THRESHOLD>) Messages having Capture to Apply Latency higher than the specified threshold of <OPTION(threshold_latency)> seconds in <OPTION(dbname)> database streams environment. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Delay in Apply process due to errors.

Problems in database links due to network connection or bandwidth issues.

Propagation errors causing the delay.

Insufficient Streams Pool memory.

A bottle neck in message flow control.

Capture latency is high due to waiting for redo or due to large DDL or PDML activity.

Capture or Apply process being too busy and not in flow control.

Potential Impact: Delayed data movement reducing the availability.

If the replica is used for near real-time reporting, Streams would lag the production database by more than a few seconds, resulting in not providing up-to-date and accurate queries.

Suggested Action(s) : Check if there are any Apply Errors and correct them.

Check for Flow Control or Bottleneck indicators in front of apply queues and address them.

If there is a problem with propagation sender, look at wait events, streams pool utilization, or network bandwidth and correct if they have any issue.

Check if streams pool is allocated sufficient memory and correct it, if not so.

Increase Apply parameter PARALLELISM to support more simultaneous transactions.

Try setting COMMIT_SERIALISATION parameter to NONE.

For tables with LOB columns, use Apply Error Handlers to improve performance.

Check if Capture latency is high due to capture process waiting for redo, and if so, make sure all redo logs needed by capture process are available.

If an apply or capture process is too busy or not in flow control, then distribute replicated tables across multiple stream paths.

E026_DictCacheHitPct

Description: Monitors the percentage of cache getmisses to gets in dictionary cache.

Collection interval: HIGH

Policy: OracleDB_0026

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 15.0

Message Text: % of cache getmisses to gets in dictionary cache (<VALUE>%) too high for <OPTION (dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of cache getmisses to gets in dictionary cache is higher than the set threshold.

Shared Pool too small.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SHARED_POOL_SIZE if system shared memory and semaphore allocation allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E129_DGHrsSinceLastSQLApply

Description: Monitors the number of hours last sql apply occurred on the logical standby databases.

Collection interval: HIGH

Policy: OracleDB_0129

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.0

Message Text: <VALUE> number of hours last sql occurred on the Logical Standby databases. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Number of hours since the last sql applies occurred.

Network, or hardware problem.

Potential Impact: Performance

Suggested Action(s) : Identify archived files on Primary Database and copy to Standby Databases.

E215_TbISpaceFreePct

Description: Monitors the degment size in MB allocated.

Collection interval: LOW

Policy: OracleDB_0215

Aspect: Basic Oracle Segment Space
CIT: Oracle
Alarming / Logging: Logging
Data source/ Data class: DBSPI_ORA_REPORT / DBSPI_ORA_REPORT

E084_LongTransaction

Description: Monitoring the Long Running Transaction in an Oracle.

Collection interval: HIGH

Policy: OracleDB_0084

Aspect: Oracle Transactions

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 30

Message Text: Long Running Transaction: <OPTION(XID)> [<OPTION(TRAN_NAME)>] found in application. Execution Time <OPTION(ELAPSED_TIME)> mins. (<VALUE>) too high for <OPTION(dbname)> (>=<THRESHOLD>). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : This metric will alarm if the longest running transaction has been running longer than the threshold. The message text will identify the long running transaction.

There can be a variety of reasons for transactions taking a long time to execute, one of the most common reasons is blocking. Blocking occurs when one process holds a lock on a specific resource that a second process attempts to acquire, causing a conflicting lock type on the same resource.

Potential Impact: Poor logical I/O operation.

Suggested Action(s) : Using the XID(transaction id) in the message, follow the steps below to gather information about the transaction:

Find the type of locks the XID is holding.

It can be determined by querying the v\$lock view: select type, ID1, ID2, LMODE from v\$lock where (sid= XID).

Type: Type of user or system lock.

LMODE: Lock mode in which session holds the lock.

ID1 and ID2: Lock Identifier (depends on type)

E017_SegMaxExtentCnt

Description: Monitors the number of segments approaching max extent.

Collection interval: MEDIUM

Policy: OracleDB_0017

Aspect: Oracle Segment Space (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 0.5

Message Text: <VALUE> segments are approaching maximum extents allowed in <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The size of one more more segments is approaching the percentage specified in the OracleDB MP metric parameter.

NEXT, MAXEXTENTS and/or PCTINCREASE in storage clause need adjustment.

Potential Impact: Failure

Suggested Action(s) : Change NEXT, MAXEXTENTS and/or PCTINCREASE in storage clause (if possible) to avoid failure while awaiting table export and re-import.

The automatic action report for this metric lists segments where the size of one more segments is approaching the percentage specified in the OracleDB MP metric parameter.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E103_SQLScanRowsMax

Description: Monitors the SQL statements with long table scans.

Collection interval: MEDIUM

Policy: OracleDB_0103

Aspect: Oracle Query Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: One or more SQL statements with rows in a full table scan too high (>=<THRESHOLD>). Worst offender has <VALUE> rows in a full table scan owned by <OPTION (owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements perform a row-by-row scan of a table(s). Inefficient SQL statement(s).

Potential Impact: Physical or logical I/O performance

Suggested Action(s) : If possible, modify the SQL statements to reduce number of row-by-row scans.

The automatic action report for this metric provides detailed information for SQL statements exceeding scanned rows threshold.

E149_CRSONSStatus

Description: Monitors the CRS NodeApps Oracle Notification Service status.

Collection interval: VERYHIGH

Policy: OracleDB_0149

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 3.5, CRITICAL / 2.5, WARNING / 1.5, WARNING / 0.5

Message Text: Rule1: CRS NodeApps resource <OPTION(resource_name)> is INTERMEDIATE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule2: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE_NOT_RESTARTING on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule3: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE on <OPTION (node_name)> [Policy: <NAME>]

Message Text: Rule4: CRS NodeApps resource <OPTION(resource_name)> is UNKNOWN on <OPTION(node_name)> [Policy: <NAME>]

Instruction Text:

Probable Cause: * Oracle Clusterware cannot determine the state of the resource but the resource was either attempting to go online or was online the last time its state was precisely known.

* A resource is partially online.

Potential Impact: Failure

Suggested Action: * Restart the NodeApps service using SRVCTL tool.

* Check Cluster Ready Services log files.

E002_ProcessStatus

Description: Monitors the database process check.

Collection interval: VERYHIGH

Policy: OracleDB_0002

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: The process <OPTION(dbprocess_0002)> was not running for <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The critical Oracle process indicated either aborted or was killed.

Potential Impact: Failure

Suggested Action(s) : Database will probably already be shutdown. If not, shut down and restart depending on circumstances.

E038_LtchOvrLimitCnt

Description: Monitors the number of latches with high contention ratio > threshold.

Collection interval: HIGH

Policy: OracleDB_0038

Aspect: Oracle Locks & Latches (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> latches with contention percentage too high for <OPTION(dbname)> (>=<OPTION(cli_threshold)>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : There are latches with a contention percentage (misses to gets) that is higher than the set OracleDB MP metric parameter.

Contention

Potential Impact: Performance

Suggested Action(s) : Review latch ratios that are exceeding threshold and isolate for further investigation.

The automatic action report for this metric lists all latches, number of misses, number of gets and the ratio of misses to gets.

A set of graphs (default) will be launched from this event. See the Waits graph to understand about performance over a period of time.

E034_RedoCopyLtchPct

Description: Monitors the percentage of redo copy latch misses.

Collection interval: HIGH

Policy: OracleDB_0034

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 1.0

Message Text: Redo copy latch percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of misses to gets OR immediate misses to immediate gets on the redo copy latch is higher than the set threshold.

Redo contention

Potential Impact: Performance

Suggested Action(s) : On multiple-CPU computers, multiple redo copy latches allow multiple processes to copy entries to the redo log buffer concurrently. The default value of initialization parameter LOG_SIMULTANEOUS_COPIES is the number of CPUs available to your Oracle instance. Note - this initialization parameter has been downgraded to an undocumented initialization parameter for Oracle 10 and above, and is set automatically by Oracle to a value of 2 times the number of CPUs.

If you are using Oracle 10 or above this metric is informational except for the rare circumstances in which Oracle support advises use of the undocumented initialization parameter `_LOG_SIMULTANEOUS_COPIES` (with a leading underscore) to override the automatic setting.

A set of graphs (default) will be launched from this event. See the Redo graph to understand about performance over a period of time.

E301_DiskReadsPerExecRatio

Description: Monitors the SQL statements with high disk reads per execution for a specific database.

Collection interval: NORUN

Policy: OracleDB_0301

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: Disk reads per execution (<VALUE>) too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of disk reads per execution.

Inefficient SQL statement(s).

Potential Impact: Poor I/O performance.

Suggested Action(s) : review the SQL statement(s).

The automatic action for this message generates a report for top 10 SQL statements with high disk reads per run.

E042_UnlyzTblIndxPct

Description: Monitors the percentage of never analyzed tables and indexes.

Collection interval: LOW

Policy: OracleDB_0042

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.01

Message Text: Unanalyzed or under-analyzed tables and indexes percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of tables and indexes that have never been analyzed is higher than the set threshold.

The percentage of tables and indexes that have either never been analyzed or have not been recently analyzed is higher than the set threshold. Not recently analyzed is defined as not analyzed in the past N days where N is the number of days passed in the OracleDB MP metric parameter for this metric. Change the OracleDB MP metric parameter if the number of days is not appropriate (default is 20).

No analyze executed or not executed often enough.

Potential Impact: Performance for cost based optimizer and for hints.

Suggested Action(s) : Analyze tables and indexes.

A set of graphs (default) will be launched from this event. See the Tables and Indexes graph to understand about performance over a period of time.

E334_DskGrpFreePct

Description: Monitors the diskgroups with low free space for a specific database.

Collection interval: VERYHIGH

Policy: OracleDB_0334

Aspect: Oracle ASM Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 10

Message Text: Free space percentage (<VALUE>) too low for <OPTION(diskgroup)> in database <OPTION(dbname)> (<=<THRESHOLD>%). Free space <OPTION(free)>Mb, total space <OPTION(total)>Mb. Associated <OPTION(instance)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The reported diskgroup currently has a free space percentage that is lower than the configured condition threshold.

Diskgroup needs additional space.

Potential Impact: Failure

Suggested Action(s) : Add new disk(s) in diskgroups.

E127_DGStdbbyDestErr

Description: Monitors the number of dataguard destinations that are getting errors or in an invalid state.

Collection interval: HIGH

Policy: OracleDB_0127

Aspect: Oracle DataGuard Faults

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: <VALUE> of dataguard destinations that are getting errors or in an invalid state. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : There are Dataguard destinations that are getting errors or in an invalid state Network, or hardware problem.

Potential Impact: Performance / Database Availability.

Suggested Action(s) : Check the ALERT log for error information Correct the problem that is preventing transmitting of archives to Standby databases. Requires grant select on GV_\$ARCHIVE_DEST to oramp_account.

E148_CRSGSDStatus

Description: Monitors the CRS NodeApps Global Service Daemon status.

Collection interval: VERYHIGH

Policy: OracleDB_0148

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: WARNING / 3.5, CRITICAL / 2.5, WARNING / 1.5, WARNING / 0.5

Message Text: Rule1: CRS NodeApps resource <OPTION(resource_name)> is INTERMEDIATE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule2: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE_NOT_RESTARTING on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule3: CRS NodeApps resource <OPTION(resource_name)> is OFFLINE on <OPTION(node_name)> [Policy: <NAME>]

Message Text: Rule4: CRS NodeApps resource <OPTION(resource_name)> is UNKNOWN on <OPTION(node_name)> [Policy: <NAME>]

Instruction Text:

Probable Cause: * Oracle Clusterware cannot determine the state of the resource but the resource was either attempting to go online or was online the last time its state was precisely known.

* A resource is partially online.

Potential Impact: Failure

Suggested Action: * Restart the NodeApps service using SRVCTL tool.

* Check Cluster Ready Services log files.

E077_DualExssRowStat

Description: Monitors the SYS.DUAL status.

Collection interval: MEDIUM

Policy: OracleDB_0077

Aspect: Oracle Object Faults

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: CRITICAL / 1.5

Message Text: The dual excess row status is invalid for <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Software upgrade or installation.

Potential Impact: Failure

Suggested Action(s) : Drop table and recreate with 1 row using 'insert into sys.dual values ('X');

The automatic action report for this metric shows the sys.dual table.

E123_GlobalCacheBlockRecTime

Description: Monitors the average time waited for consistent read per block.

Collection interval: MEDIUM

Policy: OracleDB_0123

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 15

Message Text: Average time waited for consistent read per block is <VALUE> [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Time waited for consistent read per block is too High.

High system load, using a public interconnect instead of a private network, network errors, or poor CPU utilization by the LMS processes.

Potential Impact: Performance

Suggested Action(s) : Monitor object statistics to identify the database objects with remote concurrent writes and the SQL statements causing this.

E070_PQServrsBusyPct

Description: Monitors the percentage of parallel query servers busy.

Collection interval: MEDIUM

Policy: OracleDB_0070

Aspect: Oracle Parallel Query Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 60

Message Text: % of busy to max Parallel Query Servers (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of used Parallel Query Servers is higher than the set threshold.

Initialization parameter PARALLEL_MAX_SERVERS set too low.

Potential Impact: Queries that are candidates for parallelization ('parallel hint' or PARALLEL declaration in schema object, plus a full table scan or multiple partition index range scan) are not parallelized or return an error (if initialization parameter PARALLEL_MIN_PERCENT is set and in absence of overriding hint - see Oracle Server Tuning guide)

Suggested Action(s) : Increase value of initialization parameter PARALLEL_MAX_SERVERS, if possible. Recommended value is 2 * CPUs * number_of_concurrent_users. Be sure to remain within process limit defined for the Oracle database and for the server on which it executes.

The automatic action report for this metric shows the overall server statistics (such as servers busy, idle, sessions, etc.) and information on the slave servers (such as status, sessions, CPU seconds).

A set of graphs (default) will be launched from this event. See the Parallel Query Option graph to understand about performance over a period of time.

E087_ProcessPct

Description: Monitor the percentage of current processes to configured.

Collection interval: HIGH

Policy: OracleDB_0087

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 90.0

Message Text: Current processes percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of current processes to configured processes is higher than the set threshold.

Increased load, change in database usage.

Potential Impact: Failure

Suggested Action(s) : Increase initialization parameter PROCESSES.

A set of graphs (default) will be launched from this event. See the Initialization Limits graph to understand about performance over a period of time.

E020_SortMemoryPct

Description: Monitors the percentage of memory sorts.

Collection interval: MEDIUM

Policy: OracleDB_0020

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 85.0, WARNING / 95.0

Message Text: Rule1: Sorts in memory percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Message Text: Rule2: Sorts in memory percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The total percentage of sorts in memory is too low. Too many sorts are occurring on disk.

Initialization parameter SORT_AREA_SIZE low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SORT_AREA_SIZE if shared memory allows.

A set of graphs (default) will be launched from this event. See the Sorts Memory/Rows graph to understand about performance over a period of time.

E040_LibCacPinHitPct

Description: Monitors the percentage of pinhits to pins in dictionary cache.

Collection interval: HIGH

Policy: OracleDB_0040

Aspect: Oracle Memory Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 95.0

Message Text: Library cache pinhits percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of pinhits to gets in dictionary cache is lower than set OVO threshold. Shared Pool too small.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter SHARED_POOL_SIZE if system shared memory and semaphore allocation allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E101_DiskReadsPerExecRatio

Description: Monitors the number of SQL statement with high disk reads per execution.

Collection interval: MEDIUM

Policy: OracleDB_0101

Aspect: Oracle Query Performance (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: One or more SQL statements with disk reads per execution too high (\geq <THRESHOLD>). Worst offender has (<VALUE>) disk reads per execution, owned by <OPTION (owner)>, query with SQL ID = <OPTION(sql_id)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of disk reads per execution. Inefficient SQL statement(s).

Potential Impact: Poor I/O performance.

Suggested Action(s) : review the SQL statement(s).

The automatic action for this message generates a report for top 10 SQL statements with high disk reads per execution.

E046_RowFetchbyIdxPct

Description: Monitors the percentage of rows fetched by index.

Collection interval: MEDIUM

Policy: OracleDB_0046

Aspect: Oracle Object Faults (Add-on)

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 50.0, WARNING / 75.0

Message Text: Rule1: Rows fetched by index percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Message Text: Rule2: Rows fetched by index percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of rows fetched by index to total rows fetched is lower than the threshold.

Potential Impact: Performance

Suggested Action(s) : Add indexes, analyze tables and indexes if cost-based optimizer or hints used, tune SQL if possible.

A set of graphs (default) will be launched from this event. See the Tables and Indexes graph to understand about performance over a period of time.

E217_SegMaxExtentCnt

Description: Monitors the number of segments approaching max extent.

Collection interval: NORUN

Policy: OracleDB_0217

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 80

Message Text: Extents to maximum extents percentage (<VALUE>%) too high for <OPTION(segment_name)> in database <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The reported segment is approaching the extent to max extents percentage configured in the condition threshold.

NEXT, MAXEXTENTS and/or PCTINCREASE in storage clause need adjustment.

Potential Impact: Failure

Suggested Action(s) : Change NEXT, MAXEXTENTS and/or PCTINCREASE in storage clause (if possible) to avoid failure while awaiting table export and re-import.

E302_SQLFetches

Description: Monitors the SQL statements with high fetches for specific database.

Collection interval: NORUN

Policy: OracleDB_0302

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 150

Message Text: Fetches per execution (<VALUE>) too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high number of fetches per execution. SQL statement with high number of fetch operations.

Potential Impact: Performance

Suggested Action(s) : Modify SQL statement(s), if possible, to reduce number of fetch operations, or increase the threshold to avoid triggering an alarm.

The automatic action report for this metric provides detailed information for SQL statements exceeding max allowed fetch threshold.

E009_TSTmpExntPctCnt

Description: Monitors the number of tablespaces with high use of temp segments to total.

Collection interval: MEDIUM

Policy: OracleDB_0009

Aspect: Oracle Tablespace Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 0.5

Message Text: <VALUE> tablespaces with high use of TEMPORARY segments to tablespace total in <OPTION(dbname)> (>=<OPTION(cli_threshold)>%), most serious is <OPTION(tablespace_name)> at <OPTION(value_0009)>%. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more tablespaces containing TEMPORARY segments that use a higher percentage of total tablespace than defined in the OracleDB MP metric parameter.

Disk sorts high, dedicated temporary tablespace allocation low. If the percentage is greater than zero in a tablespace not intended for use as a temporary tablespace, check OracleDB_0004 to ensure users have correct temporary and defaults tablespaces allocated. Note, SQL*Loader, SQL Alter Index Rebuild and certain other operations might create temporary segments in tablespaces not specified in the temporary tablespace specification in the system table dba_users.

Potential Impact: Performance

Suggested Action(s) : Increase the dedicated temporary tablespace allocation, reduce disk sorts (see initialization parameter SORT_AREA_SIZE), issue SQL alter user if temporary segments being created in unintended tablespace. The automatic action report for this metric shows percentage of each tablespace devoted to TEMPORARY segments.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E092_ShrSrvrReqWtPct

Description: Monitors the percentage of shared servers waiting for requests.

Collection interval: HIGH

Policy: OracleDB_0092

Aspect: Oracle Shared Server Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 10

Message Text: % of shared servers waiting for requests (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of servers waiting for requests is higher than the set threshold.

Not enough shared servers available (dynamically created by Oracle)

Potential Impact: Performance

Suggested Action(s) : Increase value of initialization parameter MTS_MAX_SERVERS.

The automatic action report for this metric lists information on the servers such as status, requests, and others.

A set of graphs (default) will be launched from this event. See the Multi-threaded Server graph to understand about performance over a period of time.

E310_SessionFreeBufferWaitMax

Description: Monitors a specific sessions with high free buffer wait.

Collection interval: NORUN

Policy: OracleDB_0310

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Average wait of 'free buffer waits' event for Session ID <OPTION(SID)> of <OPTION (Username)>: is <VALUE> seconds. Threshold is <THRESHOLD> [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Database buffer cache is too small.

Potential Impact: Poor performance.

Suggested Action(s) : Increase the size of database buffer cache.

E136_FRADiscFullPct

Description: Monitor FRA Disc Space : percentage of space used by FRA.

Collection interval: HIGH

Policy: OracleDB_0136

Aspect: Oracle Database Space Utilization

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 90, WARNING / 75

Message Text: Rule1: Used space percentage (<VALUE>) too high for FRA in database <OPTION (dbname)> (>=<THRESHOLD>%). Used space <OPTION(space_used)>Mb, space limit <OPTION (space_limit)>Mb. [Policy: <NAME>]

Message Text: Rule2: Used space percentage (<VALUE>) too high for FRA in database <OPTION (dbname)> (>=<THRESHOLD>%). Used space <OPTION(space_used)>Mb, space limit <OPTION (space_limit)>Mb. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Used space percentage high for FRA in database.

Potential Impact: Performance

Suggested Action(s) : One of the following :

1. Increase DB_RECOVERY_FILE_DEST_SIZE and add disk space if necessary.
2. Use RMAN to backup the files to some tertiary device
3. Consider changing RMAN retention policy or archived log deletion policy.
4. Use RMAN to delete files from Recovery Area.

This metric checks for % of space used by FRA.

E022_TotBufCacHitPct

Description: Monitors the total percentage of buffer cache hit.

Collection interval: HIGH

Policy: OracleDB_0022

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MAJOR / 70.0, WARNING / 90.0

Message Text: Rule1: Total buffer cache hit percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Message Text: Rule2: Total buffer cache hit percentage (<VALUE>%) too low for <OPTION(dbname)> (<=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of buffer cache reads to physical reads since the database was started is lower than the set threshold.

Initialization parameter DB_BLOCK_BUFFERS set too low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter DB_BLOCK_BUFFERS if shared memory allows.

A set of graphs (default) will be launched from this event. See the Sharedpool graph to understand about performance over a period of time.

E028_LocksUsedPct

Description: Monitor the percentage of DML locks used to total configured.

Collection interval: HIGH

Policy: OracleDB_0028

Aspect: Basic Oracle Locks & Latches

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 75.0

Message Text: DML locks used percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of DML locks used to total configured is higher than the set threshold.

Initialization parameter DML_LOCKS set too low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter DML_LOCKS.

A set of graphs (default) will be launched from this event. See the Initialization Limits graph to understand about performance over a period of time.

E037_UserLogOnCnt

Description: Monitors the number of logons.

Collection interval: VERYHIGH

Policy: OracleDB_0037

Aspect: Oracle Database Availability

CIT: Oracle

Alarming / Logging: Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

E304_SQLExecRate

Description: Monitors a specific database for SQL statements with high run rate.

Collection interval: NORUN

Policy: OracleDB_0304

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 5

Message Text: Executions per minute (<VALUE>) too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high execution rate. SQL statement invoked too frequently.

Potential Impact: Performance

Suggested Action(s) : If possible, reduce the number of times SQL statement is invoked. Alternately, increase the threshold to avoid triggering an alarm.

The automatic action report for this metric provides detailed information for SQL statements exceeding max allowed execution rate threshold.

E110_SessionFreeBufferWaitMax

Description: Monitors the sessions with high free buffer wait.

Collection interval: MEDIUM

Policy: OracleDB_0110

Aspect: Oracle Sessions Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1.00

Message Text: Average wait of 'free buffer waits' event for Session ID <OPTION(SID)> of <OPTION (Username)>: is <VALUE> seconds. One or more Session has exceeded the threshold of <THRESHOLD> seconds [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : Database buffer cache is too small.

Potential Impact: Poor performance.

Suggested Action(s) : Increase the size of database buffer cache.

E121_GlobalCacheBlockCorruptMax

Description: Monitors the number of blocks that encountered a corruption during interconnect.

Collection interval: MEDIUM

Policy: OracleDB_0121

Aspect: Oracle RAC Health

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 0.5

Message Text: <VALUE> of blocks corrupted during interconnect in one instance. One or more instance has encountered block corruption during interconnect. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more blocks have encountered a corruption during transfer.

Network, or hardware problem.

Potential Impact: Data loss.

Suggested Action(s) : Check for network or hardware problem.

E014_DataFStatusCnt

Description: Monitors the number of datafiles not ONLINE.

Collection interval: HIGH

Policy: OracleDB_0014

Aspect: Oracle Tablespace Health

CIT: Oracle

Alarming / Logging: Alarming

Message Category: OracleDB

Severity / Threshold: CRITICAL / 0.5

Message Text: <VALUE> datafiles not ONLINE in <OPTION(dbname)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The DBA or an automatic database function has placed the datafile in a status other than ONLINE.

Potential Impact: Failure

Suggested Action(s) : Ensure datafile in correct status (might need recovery).

The automatic action report for this metric lists the status for datafiles that are not ONLINE.

A set of graphs (default) will be launched from this event. See the Tablespace graph to understand about performance over a period of time.

E088_LogicReadsRate

Description: Monitors the number of logical reads per minute.

Collection interval: HIGH

Policy: OracleDB_0088

Aspect: Oracle IO Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: WARNING / 1000

Message Text: The number of logical reads per minute (<VALUE>) for <OPTION(dbname)> is too high. [Policy: <NAME>]

Instruction Text:

Probable Cause: The number of logical reads is too high.

Potential Impact: Performance

Suggested Action: Determine whether the sub optimal SQL statements in the application queries the data blocks more than expected.

E024_EQWaitsReqPct

Description: Monitor the percentage of enqueue waits to enqueue requests.

Collection interval: HIGH

Policy: OracleDB_0024

Aspect: Basic Oracle Memory Performance

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: DBSPI_ORA_GRAPH / DBSPI_ORA_GRAPH

Message Category: OracleDB

Severity / Threshold: MINOR / 1.0

Message Text: Enqueue waits to requests percentage (<VALUE>%) too high for <OPTION(dbname)> (>=<THRESHOLD>%). [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : The percentage of enqueue waits to enqueue requests is higher than the set threshold.

Initialization parameter ENQUEUE_RESOURCES too low.

Potential Impact: Performance

Suggested Action(s) : Increase initialization parameter ENQUEUE_RESOURCES.

A set of graphs (default) will be launched from this event. See the Waits graph to understand about performance over a period of time.

E307_SQLCPUTime

Description: Monitors the SQL statements with high CPU time per execution for a specific database.

Collection interval: NORUN

Policy: OracleDB_0307

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 1

Message Text: CPU time per execution (<VALUE>) seconds too high (>=<THRESHOLD>) for query with SQL ID = <OPTION(sql_id)> with owner <OPTION(owner)>. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statements have a high CPU time per execution.

Inefficient SQL statement(s).

Potential Impact: Poor logical I/O performance.

Suggested Action(s) : Review the SQL statement or increase the threshold to avoid triggering an alarm.

The automatic action for this message generates a report for top 10 SQL statements with high CPU time per run.

E308_SQLFullTableScanMax

Description: Monitors the SQL statements performing Full table scan for a specific database.

Collection interval: NORUN

Policy: OracleDB_0308

Aspect: NA

CIT: NA

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: WARNING / 100.00

Message Text: Full table scan by <OPTION(Owner)>: on <OPTION(Name)> having no of rows <VALUE>. Threshold is <THRESHOLD> [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : One or more SQL statement has performed full table scan.

Incorrect query. Joining condition missing.

Potential Impact: Query running slower than expected.

Suggested Action(s) : Review the SQL statement.

E142_StrmsPropErrs

Description: Monitors propagation errors in an oracle streams environment.

Collection interval: MEDIUM

Policy: OracleDB_0142

Aspect: Oracle Streams

CIT: Oracle

Alarming / Logging: Alarming / Logging

Data source/ Data class: NA / NA

Message Category: OracleDB

Severity / Threshold: MAJOR / 2, WARNING / 1

Message Text: Rule1: There are <OPTION(disabled_propagations)> DISABLED and <OPTION(aborted_propagations)> ABORTED Streams Propagations in <OPTION(dbname)> database. [Policy: <NAME>]

Message Text: Rule2: There are <OPTION(disabled_propagations)> DISABLED and <OPTION(aborted_propagations)> ABORTED Streams Propagations in <OPTION(dbname)> database. [Policy: <NAME>]

Instruction Text:

Probable Cause(s) : If a propagation is not configured properly to propagate messages from the correct source queue to the correct destination queue.

If the propagation is disabled.

If there are not enough job queues processes to propagate messages.

If security is not configured properly for users to be able to perform operations ANYDATA secure queues.

If there is a problem in the database link to the destination database.

Potential Impact: Delayed data movement giving rise to latency in data replication.

The messages remain in the source queue until they are propagated. Thus, a propagation failure could cause the source queue to grow large leading to memory/space problems in the source database.

Suggested Action(s) : Diagnose and correct the errors as reported in the Automatic Action of this alarm message and restart the propagation jobs.

Check if the propagation job is not configured with correct source and destination queues. If so, correct the problem.

Enable the propagation using the START_PROPAGATION procedure in the DBMS_PROPAGATION_ADM package, if it is in DISABLED state.

Check that the propagation schedule has been created and that a job queue process has been assigned.

Check if the database link to the destination database has been set up properly. Make sure that the queue owner can use the database link.

Make sure that at least two job queue processes are running. This could be done by setting the initialization parameter, JOB_QUEUE_PROCESSES 2 or higher in each database instance that runs propagations.

Correct the security issues, if any, for the users to be able to perform enqueue/dequeue operations on secure queues such as ANYDATA.

If the propagation job is enabled and everything else is fine, but is not propagating messages, then try stopping and restarting the propagation.

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