ELCM Database Practices Db 19c
Oracle ELCM Universal Banking
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1. Table & Index Partitioning

Table and index partitioning helps to reduce the contention and GC related delays in RAC environment. Table and index partitioning is mandatory if you have deployed Oracle ELCM in RAC database.

Following are the list of tables to be partitioned:

Table Name	Partitioning Type	Column name
GETB_FACILITY_ACTION_LOG	HASH	ID
GETB_MAIN_UTILS	HASH	UTIL_ID
GETB_BLOCKS	HASH	BLOCK_ID
GETB_BLOCKS_LOG	HASH	BLK_BRN
GETB_MAIN_BLOCKS	HASH	BLOCK_ID
GETB_UTILS	HASH	UTIL_ID
GETB_UTILS_LOG	LIST	UTIL_BRN
GETB_VD_UTILS	HASH	FACILITY_ID
GETH_UTILS	LIST	UTIL_BRN
GETM_LIAB	HASH	ID
GETM_LIAB_CUST	LIST	BRANCH_CODE
GETB_FACILITY_VDBAL	HASH	LINE_ID
GETB_FACILITY_BDBAL	HASH	LINE_ID

Following are the list of indexes to be partitioned:

TABLE_NAME	INDEX_NAME	PARTITIONING_TYPE	PARTITION COLUMN
ELTB_UTIL_TXN_LOG	IX01_ELTB_UTIL_TXN_LOG	HASH	MASTER_TXN_ID
ELTB_UTIL_TXN_LOG	IX02_ELTB_UTIL_TXN_LOG	HASH	MASTER_TXN_ID

TABLE_NAME	INDEX_NAME	PARTITIONING_TYPE	PARTITION COLUMN
GETB_BLOCKS	PK01_GETB_BLOCKS	HASH	BLK_REF_NO
GETB_BLOCKS_LOG	PK01_GETB_BLOCKS_LOG	HASH	SERIAL_NO
GETB_DAILY_LOG_AC		HASH	FACILITY_ID
GETB_FACILITY_ACTION_LOG	PK01_GETB_FACILITY_ACTION_LOG	HASH	LINE_ID
GETB_POOL_LINK	PK01_GETB_POOL_LINK	HASH	ID

GETM_FACILITY_VD_DETAILS	PK_GETM_FACILITY_VD_DETAILS	HASH	LINE_ID
GETB_UTILS	UK01_GETB_UTILS	HASH	USER_REFNO
GETB_UTILS_LOG	PK01_GETB_UTILS_LOG	HASH	SERIAL_NO
GETB_VD_UTILS	PK01_GETB_VD_UTILS	HASH	FACILITY_ID
GETM_LIAB	PK01_GETM_LIAB	HASH	ID
GETM_LIAB	UI01_GETM_LIAB	HASH	LIAB_NO
GETM_LIAB_CUST	PK01_GETM_LIAB_CUST	HASH	ID
GETM_LIAB_CUST	UI01_GETM_LIAB_CUST	HASH	CUSTOMER_NO

Following points are to be noted during partitioning:

- Keep the number of partitions same as number of branches for list partitions. Exact name of some indexes might be different.

2. Sequence Caching

Sequence Caching is applicable only if Oracle ELCM is deployed in RAC database.

Heavy use of sequences in RAC database causes high DFS lock handle & row cache lock waits which affect the application scalability. In order to overcome this issue, the sequences are to be cached with no order option.

Please refer OBELCM-Sequence-Cache.xlsx for recommended sequence cache values.

OBELCM-Sequence-Cache.xlsx

3. Script to Capture and Lock Statistics for Volatile Tables in ELCM Schema

As mentioned in section on ELCM specific Statistic collection, statistics on the volatile tables are critical for performance and the statistics would have to be collected when these volatile tables have data. We recommend the below tables statistics to be locked after gathering statistics during peak volume.

1. GETB_DAILY_LOG_AC

The approach to be followed is as follows:

- Identify the time period where these specific tables have maximum data. E.g., GETB_DAILY_LOG_AC is an accounting table that is volatile. This table is bound to have maximum data (Peak Day of Business/ Month End Day).
- Unlock and Collect Statistics for this specific table on the day of Maximum Volume.
- Lock the statistics

Note: Different ELCM tables might have different days of peak volume and hence the statistics should be collected at different days matching the peak volume for the respective table.

The statistics would have to be monthly refreshed so that the boundary values are refreshed. Lower bound and upper bound values are stored in the data dictionary and outdated boundary values might skew the cost of the SQL.

Use the attached script to capture statistics. The script would have to be run connecting as ELCM schema. The following example uses GETB_DAILY_LOG_AC as the volatile table. The same script can be used for other tables as well.

```
Spool OBELCM_Vol_Table_Stats.txt

SELECT NUM_ROWS, BLOCKS, SAMPLE_SIZE,

TO_CHAR(LAST_ANALYZED,'DDMON-YYYY HH24:MI:SS') from

USER_TAB_STATISTICS

WHERE TABLE_NAME='GETB_DAILY_LOG_AC'; exec

dbms_stats.unlock_table_stats(USER,'GETB_DAILY_LOG_AC');

exec
dbms_stats.gather_table_stats(OWNNAME=>USER,tabname=>'GETB_DAILY_
LOG_AC',METHOD_OPT=>'FOR ALL COLUMNS SIZE 1',

CASCADE=>true, DEGREE=>4); exec

dbms_stats.lock_table_stats(USER,'GETB_DAILY_LOG_AC');

SELECT NUM_ROWS, BLOCKS,SAMPLE_SIZE,TO_CHAR(LAST_ANALYZED,'DDMON-
YYYY HH24:MI:SS') from USER_TAB_STATISTICS WHERE
TABLE_NAME='GETB_DAILY_LOG_AC';
Spool off
```

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