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Very High Waits for 'reliable message' After Upgrade to 11.2.0.4 When Using Result Cache (Doc ID 1951729.1)

In this Document

Symptoms

Changes

Cause

Solution

References

APPLIES TO:

Oracle Database - Enterprise Edition - Version 11.2.0.4 to 12.1.0.2 [Release 11.2 to 12.1]

Oracle Database Exadata Cloud Machine - Version N/A and later

Oracle Cloud Infrastructure - Database Service - Version N/A and later

Oracle Database Cloud Exadata Service - Version N/A and later

Oracle Database Cloud Schema Service - Version N/A and later

Information in this document applies to any platform.

SYMPTOMS

• After upgrade to 11.2.0.4, high waits for Reliable message is seen in AWR reports:

| p 10 Foreground Events by Total Wait Time | | | | | | |
|---|--------------|------|----------|-------|-------------|--|
| D | | Wait | | % DB | W 1 21 | |
| Event | Waits | Time | Avg (ms) | time | Wait Class | |
| reliable message | 34, 293, 326 | 1430 | 42 | 64. 1 | Other | |
| DB CPU | | 265 | | 11.9 | | |
| eng: TX - row lock contention | 2, 556, 859 | 114K | 45 | 5. 1 | Application | |
| PX Deq: Signal ACK RSG | 102, 595 | 101K | 985 | 4.5 | Other | |
| log file sync | 6, 458, 803 | 86.5 | 13 | 3.9 | Commit | |
| cursor: pin S wait on X | 184, 770 | 34.8 | 189 | 1.6 | Concurrent | |

- · Result cache is enabled.
- Querying against gy\$channel_waits reveal component responsible for high waits:

Document 1951729.1

2022/4/6 上午11:37

```
SELECT CHANNEL,
SUM(wait_count) sum_wait_count
FROM GV$CHANNEL_WAITS
GROUP BY CHANNEL
ORDER BY SUM(wait_count) DESC;

CHANNEL
Result Cache: Channel

30771842
```

| CHANNEL | wart count |
|--|------------|
| Result Cache: Channel | 307718423 |
| kxfp control signal channel | 97080 |
| RBR Channel | 60807 |
| MMON remote action broadcast channel | 28256 |
| obj broadcast Channel | 14736 |
| kill job broadcast - broadcast channel | 367 |
| parameters to cluster db instances - broadcast channel | 15 |
| Broker IQ Result | 5 |
| service operations - broadcast channel | 4 |
| quiesce Channel | 2 |
| | |

CHANGES

Upgraded to 11.2.0.4.

CAUSE

Issue is caused by bug associated with result cache handling which is fixed in Oracle 12c release 12.2:

```
\underline{\text{Bug }19557279} - EXCESSIVELY HIGH RELIABLE MESSAGE <==closed as duplicate to following bug: \underline{\text{Bug }18416368} - HANG OBSERVED DURING DMLS
```

SOLUTION

- 1. Upgrade to a higher version where the issue is fixed i.e. Oracle 12c release 12.2 or the 12.1.0.2.0 Patchset
- 2. Apply patch 18416368 if available on your platform
- 3. To workaround the issue, disable result cache by setting the following parameter:

```
SQL> alter system set result cache max size=0;
```

2022/4/6 上午11:37 Document 1951729.1

The instance(s) must be restarted for the parameter to take effect.

REFERENCES

<u>BUG:19557279</u> - EXCESSIVELY HIGH RELIABLE MESSAGE <u>NOTE:1108133.1</u> - SQL Query Result Cache. Includes: [Video]

Didn't find what you are looking for?