

HADR_DATABASE_WAIT_FOR_TRANSITION_TO_VERSIONING wait

Last updated by | Charlene Wang | May 31, 2021 at 12:45 AM PDT

Contents

- [HADRDATABASEWAITFORTransitionToVersioning wait](#)
 - [Scenario](#)
 - [Error](#)
 - [Cause](#)
 - [Mitigation](#)
 - [Classification](#)

HADR_DATABASE_WAIT_FOR_TRANSITION_TO_VERSIONING wait

Scenario

If a read-only replica of Geo-Replication rebooted while running SELECT query, and the primary has open transactions, users are not able to login to the replica after it is online again. The attempt will fail with error:

Error

4221, Severity: 16, State: 128.

Login to read-secondary failed due to long wait on 'HADR_DATABASE_WAIT_FOR_TRANSITION_TO_VERSIONING'. The replica is not available for login because row versions are missing for transactions that were in-flight when the replica was recycled. This wait type guarantees that row versions are available before execution of a query under snapshot isolation.

Cause

For these SELECT queries not to be blocked by geo-primary, we use SNAPSHOT_ISOLATION method and store row versions for the running/open transaction. The row version information is stored in tempdb. After the replica rebooted, the row version info is no longer available. In order to guarantee that row versions are available before execution of a query under snapshot isolation, the database is not accepting connections until the open transactions on the primary closed.

Please be noted that with ADR/PVS, we no longer need this wait since the version is inside the database and persistent. Please involve PG to check if ADR/PVS is disabled on this server for some reason and enable them to avoid such wait type.

Mitigation

Customer may evaluate the long-running open transactions on the Primary. Either wait for the transactions to complete or terminate them.

We generally recommend that customer applications avoid long-running transactions for this and other reasons.

Follow-up to confirm current status : PG is working on a longer-term fix to remove this unfortunate behavior which is expected to be deployed to production the coming two or three months.

Classification

Root Cause: Azure SQL DB v2\GeoDR/AutoDR

How good have you found this content?

