InterSystems Official

RB Omo · Mar 14, 2019

Alert: Data Integrity Issue with Mirror Database Catchup

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InterSystems has corrected a defect in our mirroring technology that can result in inconsistency between mirrored databases. This defect exists for currently released Caché and Ensemble versions beginning with 2017.2 and for InterSystems IRIS Data Platform version 2018.1.

When the issue occurs, some journal updates are not applied to a mirrored database on the backup mirror member or an async member that is being caught up. The result is that the database may not be synchronized with the database on the primary mirror member.

This problem can occur only if a mirror member shuts down abnormally during the Catchup operation. The abnormal shutdown can result from either:

- A forced shutdown of the instance
- An operating system shutdown or crash

Note that, even when all necessary conditions exist, the likelihood of experiencing the impact of this defect is very low.

Determining if a system has been affected

First, determine if a Catchup operation was ever interrupted by an abnormal shutdown:

- 1. Search the chain of cconsole.log files (for Caché and Ensemble) or messages.log files (for InterSystems IRIS) since installing or upgrading to an impacted product version.
- 2. Look for the strings "catchup started for " and " Mirror Catchup completed for ", which indicate the start and end of a Catchup operation.

If an abnormal shutdown did not occur between the start and end of a Catchup, the instance has not been affected; if there has been an abnormal shutdown during a Catchup, this means that the instance may have been affected.

Second, if an abnormal shutdown did occur during a Catchup operation, determine if the mirrored databases are currently inconsistent. Run DataCheck to verify the consistency of globals across mirror members. Verification by DataCheck does not guarantee that the data was consistent at all times, as subsequent updates of impacted globals may have brought them back to consistency. For more information on DataCheck, see the "Data Consistency on Multiple Systems" chapter in the Data Integrity Guide.

Information about the correction

The correction for this defect is identified as JO3114. It is included in Caché and Ensemble releases beginning with 2018.1.2 and in InterSystems IRIS Data Platform releases beginning with 2019.1. The correction is also available from the Worldwide Response Center (WRC) via Ad hoc distribution.

If you have any questions regarding this alert, please contact the <u>Worldwide Response Center</u>.

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