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From Blake Eggleston <beggles...@apple.com>
Subject Materialized Views marked experimental
Date Thu, 26 Oct 2017 21:10:16 GMT

Hi user@,

Following a discussion on dev@, the materialized view feature is being retroactively classified as experimental, and not recommended for new production uses. The next patch releases of 3.0, 3.11, and 4.0 will include CASSANDRA-13959, which will log warnings when materialized views are created, and introduce a yaml setting that will allow operators to disable their creation.

Concerns about MV's suitability for production are not uncommon, and this just formalizes the advice often given to people considering materialized views. That is: materialized views have shortcomings that can make them unsuitable for the general use case. If you're not familiar with their shortcomings and confident they won't cause problems for your use case, you shouldn't use them

The shortcomings I'm referring to are:

- * There's no way to determine if a view is out of sync with the base table.
- * If you do determine that a view is out of sync, the only way to fix it is to drop and rebuild the view.

Even in the happy path, there isn't an upper bound on how long it will take for updates to be reflected in the view.

There is also concern that the materialized view design isn't known to be 'correct'. In other words, it's a distributed system design that hasn't been extensively modeled and simulated, and there have been no formal proofs about it's properties.

You should be aware that manually denormalizing your tables has these same limitations in most cases, so you may not be losing any guarantees by using materialized views in your use case. The reason we're doing this is because users expect correctness from features built into a database. It's not unreasonable for users to think that a database feature will more or less "just work", which is not necessarily the case for materialized views. If a feature is considered experimental, users are more likely to spend the time understanding it's shortcomings before using it in their application.

Thanks,

Blake

The dev@ thread can be found here: <https://www.mail-archive.com/dev@cassandra.apache.org/msg11511.html>

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