

KIP-737: Add canTrackSource to ReplicationPolicy

- [Status](#)
- [Motivation](#)
- [Public Interfaces](#)
- [Proposed Changes](#)
- [Compatibility, Deprecation, and Migration Plan](#)
- [Rejected Alternatives](#)

Status

Current state: Under Discussion

Discussion thread: [here](#)

JIRA: [here](#)

Motivation

Old users of Kafka that still use the original MirrorMaker need a path to migrate to MirrorMaker2. This involves implementing a new ReplicationPolicy and due to the differences between MirrorMaker1 and MirrorMaker2 its proposed to add a new method called canTrackSource to the public interface of ReplicationPolicy so that its possible to abstract over replication policies that can either can or cannot track back to the original source.

Note that there is already a PR that implements both the original motivation (IdentityReplicationPolicy) along with the adjustments to the interface at <https://github.com/apache/kafka/pull/10648>. The PR is currently passing all tests, only this KIP is required to proceed.

Public Interfaces

- ReplicationPolicy

Proposed Changes

The proposal is to add a boolean canTrackSource method to the ReplicationPolicy interface

Compatibility, Deprecation, and Migration Plan

- There is currently an implementation of both the original motivation (implementation IdentityReplicationPolicy aka LegacyReplicationPolicy) at <https://github.com/apache/kafka/pull/10648>. There are not any backwards breaking behavior changes since there is a default implementation however it would be ideal to do this change for Kafka 3.0.0 since we are doing adjustments to a public interface.

Rejected Alternatives

Although technically not a rejected alternative there is an alternative proposal for a Legacy/Identity ReplicationPolicy at <https://github.com/apache/kafka/pull/10652> which attempts to solve the same problem without needing to make adjustments to the ReplicationPolicy. Do note however that this implementation is currently not working (tests are failing) and that arguably the implementation at <https://github.com/apache/kafka/pull/10648> is a cleaner solution since doesn't need to back calculate the source from topic names. Hence there is an argument that irrespective of the IdentityReplicationPolicy, adding such a method can make custom implementations of a ReplicationPolicy cleaner