

# KIP-318: Make Kafka Connect Source idempotent

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## Status

**Current state:** *"Under Discussion"*

**Discussion thread:** [here](#) [Change the link from the KIP proposal email archive to your own email thread]

**JIRA:** [KAFKA-7077](#)

Please keep the discussion on the mailing list rather than commenting on the wiki (wiki discussions get unwieldy fast).

## Motivation

Kafka Connect Source currently has a "safe producer" approach to producing data. This means currently:

**Worker.java:**

```
// These settings are designed to ensure there is no data loss. They *may* be overridden via configs passed to the
// worker, but this may compromise the delivery guarantees of Kafka Connect.
...
producerProps.put(ProducerConfig.ACKS_CONFIG, "all");
producerProps.put(ProducerConfig.MAX_IN_FLIGHT_REQUESTS_PER_CONNECTION, "1");
```

Idempotent producers have been introduced in [KIP-98 - Exactly Once Delivery and Transactional Messaging](#) and allow producers to be idempotent and therefore:

- Prevent duplicates on network failure (idempotence)
- Increase performance of safe producers by using MAX\_IN\_FLIGHT\_REQUESTS\_PER\_CONNECTION=5. See:

[KAFKA-5494 - Getting issue details...](#) STATUS

Currently Kafka Connect does not benefit from these two improvements which could be very valuable to existing connectors in order to improve both the performance and safety

## Public Interfaces

We will add the following code to **Worker.java**:

```
producerProps.put(ProducerConfig.MAX_IN_FLIGHT_REQUESTS_PER_CONNECTION, "5")
producerProps.put(ProducerConfig.ENABLE_IDEMPOTENCE, true)
```

## Proposed Changes

Worker.java:

```
producerProps.put(ProducerConfig.MAX_IN_FLIGHT_REQUESTS_PER_CONNECTION, "5")
producerProps.put(ProducerConfig.ENABLE_IDEMPOTENCE, true)
```

## Compatibility, Deprecation, and Migration Plan

- *What impact (if any) will there be on existing users?*

*Users running Kafka Connect against older clusters (< 1.0) may have a compatibility issue due to API changes for idempotent producers.*

# Rejected Alternatives

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