# KIP-29 - Add an IsrPropagateIntervalMs configuration to KafkaConfig

## Status

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

**Discussion thread**: *here*

**JIRA**: *KAFKA-2406*

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

## Motivation

This KIP is related to KIP-4, KAFKA-1367 and KAFKA-2406. In the future, all the Kafka clients and admin tools will not access zookeeper directly. Therefore KAFKA-1367 was introduced to propagate the ISR change to all the brokers to sync up topic metadata on brokers. The approach is to create a ZK path to notify controller update ISR and send UpdateMetadataRequest to brokers. The issue is during a broker bounce or failure, the amount of ISR change are huge and overwhelm the controller. This KIP is to introduce a new config to batch the ISR update and throttle the ISR propagation rate.

## Public Interfaces

```
val IsrChangePropagateIntervalMsProp = "isr.change.report.interval.ms"
val IsrChangePropagateIntervalMsDoc = "Specify the interval to propagate ISR change to the entire cluster." +
                                      "The ISR propagation involves zookeeper path creation. Propagating ISR" +
                                      " change too frequently might cause performance issue."
```

Default value for the config will be set to 5 seconds.

## Proposed Changes

*Add a new config **IsrPropagateIntervalMs** to KafkaConfig. The broker will only propagate ISR change at most every IsrPropagateIntervalMs. The propagation will create a sequential ZK path in zookeeper /isr_change_notification with data of all the partition whose ISR has changed since last propagation.*

## Compatibility, Deprecation, and Migration Plan

*This is a backward compatible change.*

## Rejected Alternatives

None