How to improve the log recovery time after an unclean shutdown of Kafka Broker

SupportKB

When a Kafka broker is started after an unclean shutdown, the broker runs log recovery for the last log segment within each partition. As part of the log recovery, the log segments are validated for checksum of messages and index rebuild takes place to ensure consistency.

By default, a single thread is run for each volume, as specified using 'log.dir', for the log recovery during a Broker startup. When there are large number of partitions on each disk volumes, it would take a long time for the log recovery to complete.

The log recovery activity is I/O and CPU bound operation and this can be further parallelized to run multiple thread for each disk volume. Thereby, reducing the overall time taken for the log recovery by the broker nodes. This is achieved by increasing the value of the following parameter to more than its default value of 1. The value can be derived based on the number of vcores on the broker node and the number of 'log.dir' locations:

```
num.recovery.threads.per.data.dir
```

About:
This article created by Hortonworks Support (Article: 000005513) on 2017-02-02 04:19
OS: Linux
Type: Performance
Version: n/a