Reassigning Kafka topic partitions

Use these steps to reassign the Kafka topic partition Leaders to a different Kafka Broker in your cluster.

Before you begin

Ensure that Kafka and ZooKeeper Services are up and running.

Procedure

1. Run the following script to check the current partition assignments:

```
./kafka-topics.sh --zookeeper <zookeeper_server>:<port> --describe
```

Assume that the current partition replica assignment is as follows:

```
Current partition replica assignment
{"version":1,"partitions":[{"topic":"topic2","partition":1,"replicas":[1002]},
{"topic":"topic5","partition":1,"replicas":[1004]},
{"topic":"topic3","partition":1,"replicas":[1002]},
{"topic":"topic5","partition":0,"replicas":[1002]},
{"topic":"topic2","partition":0,"replicas":[1004]},
{"topic":"topic5","partition":2,"replicas":[1002]},
{"topic":"topic6","partition":1,"replicas":[1004]},
{"topic":"topic6","partition":0,"replicas":[1002]},
{"topic":"topic1","partition":1,"replicas":[1002]},
{"topic":"topic4","partition":2,"replicas":[1002]},
{"topic":"topic4","partition":3,"replicas":[1004]},
{"topic":"topic1","partition":0,"replicas":[1004]},
{"topic":"topic4","partition":1,"replicas":[1004]},
{"topic":"topic2","partition":2,"replicas":[1004]},
{"topic":"topic4","partition":0,"replicas":[1002]},
{"topic":"topic3","partition":0,"replicas":[1004]}]}
```

You want to assign or distribute all topics from Broker ID 1004 to Broker IDs 1001 and 1002.

2. Create the content according to the proposed partition reassignment in `</tmp/reassign-partitions.json>` file.

The format of the `reassign-partitions.json` file is as follows:

```
{
  "version": 1,
  "partitions": [
    {
      "topic": "[topic]",    #Topic of partition to reassign
      "partition" : [partition],    #partition to reassign
      "replicas": [brokerIds]   #brokerids to reassign partition to
    },
    ...
  ]
}
```

For example:

```
{"version":1,"partitions":[{"topic":"topic2","partition":1,"replicas":[1001]},
{"topic":"topic5","partition":1,"replicas":[1001]},
{"topic":"topic3","partition":1,"replicas":[1002]},
{"topic":"topic5","partition":0,"replicas":[1002]},
{"topic":"topic2","partition":0,"replicas":[1002]},
{"topic":"topic5","partition":2,"replicas":[1002]},
{"topic":"topic6","partition":1,"replicas":[1002]},
{"topic":"topic6","partition":0,"replicas":[1001]},
{"topic":"topic1","partition":1,"replicas":[1002]},
{"topic":"topic4","partition":2,"replicas":[1001]},
{"topic":"topic4","partition":3,"replicas":[1002]},
{"topic":"topic1","partition":0,"replicas":[1001]},
{"topic":"topic4","partition":1,"replicas":[1002]},
{"topic":"topic2","partition":2,"replicas":[1002]},
{"topic":"topic3","partition":0,"replicas":[1001]},
{"topic":"topic4","partition":0,"replicas":[1001]}]}
```

3. Run the reassignment of topics to replicas by using the following command:

Enter the command in a single line.

```
/kafka-reassign-partitions.sh --zookeeper <zookeeper_server>:<port>
--reassignment-json-file /tmp/reassign-partitions.json --execute
```

For example:

```
./kafka-reassign-partitions.sh --zookeeper <myserver.ibm.com>:2182
--reassignment-json-file /tmp/reassign-partitions.json --execute
```

4. Verify the reassignment by using the following commands:

Enter the command in a single line.

```
./kafka-reassign-partitions.sh --zookeeper <zookeeper_server>:<port>
--reassignment-json-file <reassign-partitions.json> --verify
```

For example:

```
./kafka-reassign-partitions.sh --zookeeper <myserver.ibm.com>:2182
--reassignment-json-file /tmp/reassign-partitions.json --verify
```

Review the leadership assignment for topics and partitions by using the following command:

```
./kafka-topics.sh --zookeeper <zookeeper_server>:<port> --describe
```

Parent topic:

→ Decommissioning the Kafka Broker component

Related information:

⬈ Reassign Partitions Tool