

Apache Kafka Example in this tutorial - Website activity tracking

According to Kafka, the original use case for Kafka was to track website activity - included page views, searches, uploads or other actions users may take.

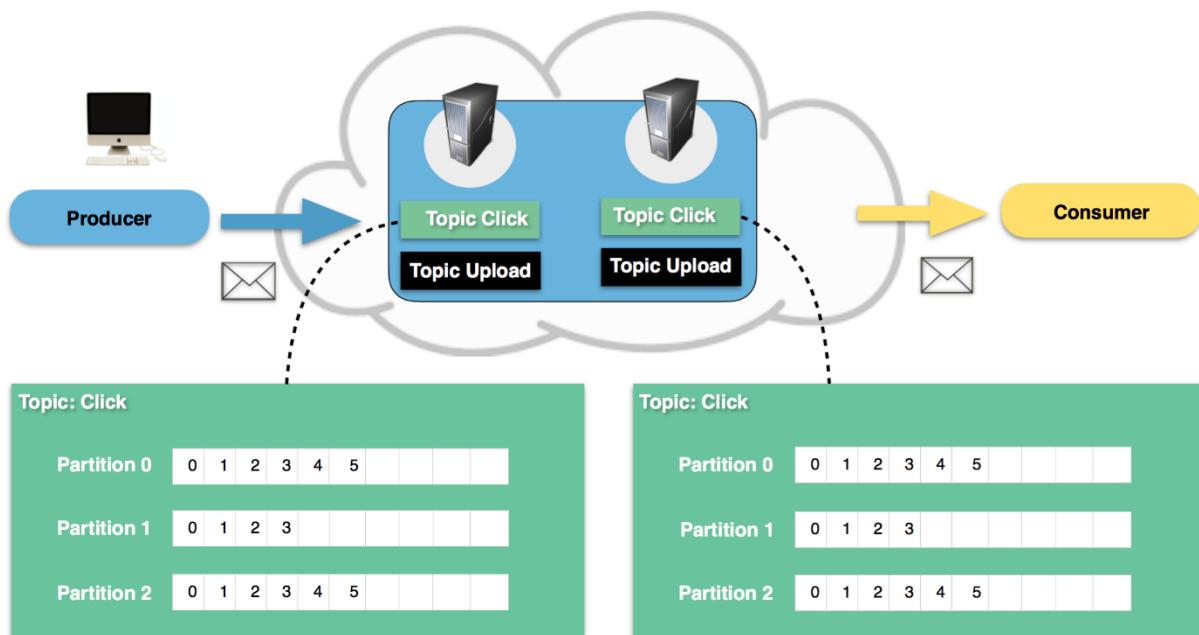
This kind of activity tracking often require a very high volume of throughput, messages are generated for each action.

Users can click around, sign in, write blog articles, upload images to articles and publish those articles.

When an event happens in the blog (e.g when someone logs in, when someone press a button or when someone uploads an image to the article) a *tracking event* and information about the event will be placed into a message, and the message will be placed onto a specified Kafka topic.

We will have one topic named "click" and one named "upload".

We will choose to setup partitioning based on the users id. User with id 0, will map to partition 0, and user with id 1 to partition 1 etc. Our "click" topic will be split up into three partitions (three users) on two different machines.



1. *A user with user-id 0 clicks on a button on the website.*
2. *The web application publish a message to partition 0 in topic "click".*
3. *The message is appended to its commit log and the message offset is incremented.*
4. *The consumer can pull messages from the click-topic and show monitoring usage in real-time, or it can replay previously consumed messages by setting the offset to an earlier one.*