KIP-930: Rename ambiguous Tiered Storage Metrics

Status

Current state: *Accepted*

Discussion thread: *here*

JIRA: *here*

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

Motivation

As per the Tiered Storage feature introduced in KIP-405, we added several metrics related to reads(from) and writes(to) for remote storage. The naming convention that was followed is confusing to the users.

For eg. in regular Kafka, BytesIn means bytes *written* to the log, and BytesOut means bytes *read* from the log. But with tiered storage, the concepts are reversed.

- RemoteBytesIn means "Number of bytes *read* from remote storage per second"
- RemoteBytesOut means "Number of bytes *written* to remote storage per second"

We should rename the tiered storage related metrics to remove any ambiguity.

Public Interfaces

The following metrics will be renamed:

Original Name	Description	New Name
kafka.server:type=BrokerTopicMetrics, name=RemoteBytesInPerSec, topic=([-.w]+)	The number of bytes read from remote storage per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchBytesPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteReadRequestsPerSec, topic=([-.w]+)	The number of remote storage read requests per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchRequestsPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteReadErrorPerSec, topic=([-.w]+)	The number of remote storage read errors per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchErrorsPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteBytesOutPerSec, topic=([-.w]+)	The number of bytes copied to remote storage per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyBytesPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteWriteRequestsPerSec, topic=([-.w]+)	The number of remote storage write requests per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyRequestsPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteWriteErrorPerSec, topic=([-.w]+)	The number of remote storage write errors per second for a topic	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyErrorsPerSec, topic=([-.w]+)
kafka.server:type=BrokerTopicMetrics, name=RemoteBytesInPerSec	Total number of bytes read from remote storage per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchBytesPerSec
kafka.server:type=BrokerTopicMetrics, name=RemoteReadRequestsPerSec	Total number of remote storage read requests per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchRequestsPerSec
kafka.server:type=BrokerTopicMetrics, name=RemoteReadErrorPerSec	Total number of remote storage read errors per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteFetchErrorsPerSec
kafka.server:type=BrokerTopicMetrics, name=RemoteBytesOutPerSec	Total number of bytes copied to remote storage per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyBytesPerSec
kafka.server:type=BrokerTopicMetrics, name=RemoteWriteRequestsPerSec	Total number of remote storage write requests per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyRequestsPerSec

kafka.server:type=BrokerTopicMetrics, name=RemoteWriteErrorPerSec	Total number of remote storage write errors per second on a broker	kafka.server:type=BrokerTopicMetrics, name=RemoteCopyErrorsPerSec

Compatibility, Deprecation, and Migration Plan

The metrics that are being renamed were only added as part of the same release. Hence, we do not need to maintain backward compatibility for the renamed metrics.

Test Plan

Existing Unit Tests for the metrics being renamed.

Rejected Alternatives

None