

KIP-927: Improve the kafka-metadata-quorum output

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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

When running kafka-metadata-quorum script to get the quorum replication status, the LastFetchTimestamp and LastCaughtUpTimestamp output is not human-readable.

It would be convenient to add an optional flag to enable a human-readable format showing the operation delay in ms (i.e. 366 ms ago).

This delay is computed as (now - timestamp), where they are both represented as Unix time (UTC based).

Public Interfaces

A new optional flag called --human-readable will be added to the kafka-metadata-quorum tool.

```
$ bin/kafka-metadata-quorum.sh describe -h
usage: kafka-metadata-quorum --bootstrap-server BOOTSTRAP_SERVER describe [-h] [--status] [--replication] [--human-readable]

optional arguments:
  -h, --help            show this help message and exit

Status:
  --status              A short summary of the quorum status and the other provides detailed information about the status of replication.

Replication:
  --replication         Detailed information about the status of replication
  --human-readable      Human-readable output
```

Proposed Changes

The current default --replication output is as follows and will remain unchanged.

```
$ bin/kafka-metadata-quorum.sh --bootstrap-server :9092 describe --replication
NodeId      LogEndOffset      Lag      LastFetchTimestamp      LastCaughtUpTimestamp
Status
2           551               0        1683732558012           1683732558012
Leader
3           551               0        1683732557573           1683732557573
Follower
4           551               0        1683732557573           1683732557573           Follower
```

Instead, when passing the new flag, we will have the following output (note how argparse4j support abbreviations).

```
$ bin/kafka-metadata-quorum.sh --bootstrap-server :9092 describe --replication --human-readable
NodeId      LogEndOffset      Lag      LastFetchTimestamp      LastCaughtUpTimestamp
Status
2           8689              0        4 ms ago                4 ms ago
Leader
3           8689              0        148 ms ago               148 ms ago
Follower
4           8689              0        148 ms ago               148 ms ago                Follower

$ bin/kafka-metadata-quorum.sh --boot :9092 describe --re --hu
NodeId      LogEndOffset      Lag      LastFetchTimestamp      LastCaughtUpTimestamp
Status
2           61                0        5 ms ago                5 ms ago
Leader
3           61                0        56 ms ago               56 ms ago
Follower
4           61                0        56 ms ago               56 ms ago                Follower
```

Compatibility, Deprecation, and Migration Plan

The default behavior will remain unchanged to avoid breaking any tool relying on the current timestamp output.

Test Plan

A new test method will be added to MetadataQuorumCommandTest to verify default and new behaviors with regard to the timestamp output.

Rejected Alternatives

Using a date/time formatting (i.e. May 10, 15:54:55 UTC) won't add much information in most cases and you will have to deal with locale.