



## QUERY

On query, compare PREV to REPLICA TIMESTAMP. If up-to-date, execute the query, and return the value. If not up-to-date, get the UPDATE LOGS and VALUE TIMESTAMP, and execute the required updates. Finally, execute the query and return the value.

## UPDATE

Send to  $f$  replicas. Compare PREV to REPLICA TIMESTAMP. If up-to-date, execute the update, and return NEW, an updated timestamp. If not up-to-date, get the UPDATE LOGS and VALUE TIMESTAMP, and execute the required updates. Finally, execute the update and return NEW, an update timestamp.