

CLAIMS

1. A method for processing data, the method comprising:

receiving a data update request sent by a user, wherein the data update request comprises data updates (101);

sending a log update instruction separately to a primary server and at least two secondary servers based on the data update request, wherein the primary server and the at least two secondary servers perform a log update operation based on the log update instruction (102);

determining that the log update operation is completed;

in response to determining that the log update operation is completed, sending a data storage instruction separately to the primary server and a first secondary server from the at least two secondary servers, wherein the primary server and the first secondary server perform, based on the data storage instruction, a storage operation on the data updates (103);

determining that a second secondary server from the at least two secondary servers completes the log update operation; and

in response to determining that the second secondary server completes the log update operation, sending a null-operation instruction to the second secondary server, wherein the null-operation instruction is used to instruct the second secondary server to perform no operation.

2. The method according to claim 1, wherein determining that the log update operation is completed comprises:

determining that the primary server completed the log update operation; or

determining that the primary server and at least one secondary server in the at least two secondary servers completed the log update operation.

3. The method according to claim 2, wherein sending the data storage instruction separately to the primary server and the first secondary server in the at least two secondary servers comprises:

determining that the primary server completed the log update operation, sending the data storage instruction to the primary server, and after the data storage instruction is sent to the primary server, determining that the at least one secondary server in the at least two secondary servers completed the log update operation, sending the data storage instruction to the first secondary server in the at least two secondary servers; or

determining that the primary server and the at least one secondary server in the at least two secondary servers completed the log update operation, sending the data storage instruction separately to the primary server and the first secondary server in the at least two secondary servers.

4. The method according to any one of claims 1 to 3, wherein the second secondary server does not perform a storage operation on the data updates upon receiving the null-operation instruction.

5. The method according to claim 1, wherein the method further comprises:
in response to determining that the primary server or the first secondary server failed, determining a third secondary server, and sending a data synchronization instruction to the third secondary server to complete, based on the data synchronization instruction, data synchronization with a server that does not fail and that stores the data.

6. The method according to claim 1, wherein the method further comprises:
in response to determining that the second secondary server failed, determining a fourth secondary server, and sending a log synchronization instruction to the fourth secondary server to complete, based on the log synchronization instruction, a log synchronization with a server that does not fail.

7. The method according to any one of claims 1 to 6, wherein the primary server is in communication with an external computing device to perform external read or write operations associated with the data updates.

8. The method according to any one of claims 1 to 7, wherein the data update request comprises a payment request.

9. The method according to any one of claims 1 to 8, wherein the primary server is determined based on a random rule or based on a distributed consistency protocol.

10. A device for processing data, the device comprising a plurality of modules configured to

perform the method of any one of claims 1 to 9.