

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

determining whether the log update operation is completed; and

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 in the at least two secondary servers, so that the primary server and the first secondary server perform, based on the data storage instruction, a storage operation on the data updates (103).

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

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

determining whether 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:

in response to 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 whether 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

in response to 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 claim 1 or 3, wherein the method further comprises:
determining a second secondary server from the at least two secondary servers, and in response to determining that the second secondary server completed 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.
5. The method according to claim 4, 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 is not failed and that stores the data.
6. The method according to claim 4, 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 is not failed.
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.