

ABSTRACT

Embodiments of the present application provide a transaction processing method, a device, and a storage medium. For a distributed transaction, it is proposed innovatively that exclusive locks are added to data records involved in a read set of the distributed transaction in a read phase; in a write phase, write operations for a write set can be directly executed based on these exclusive locks, and an exclusive lock on a related data record can be released immediately after a write operation is completed. In the write phase, the exclusive locks added to the data records can maintain the exclusivity of the distributed transaction over these data records, which can avoid the write operation abort problem in the write phase. That is, all write operations of the distributed transaction are bound to succeed, thereby ensuring the atomicity of distributed transaction processing. In addition, since the exclusive lock is released immediately after the write operation is completed, the lock-holding time of the distributed transaction is only the time inherently required to execute transaction logic of the distributed transaction, thereby greatly reducing the lock-holding time of the distributed transaction, effectively increasing the throughput for distributed transactions and improving the transaction processing efficiency.

Fig. 1