An Analysis of Transaction Layout and Assignment in Distributed Database Systems

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Distributed Database is now an important characteristics in real world settings. The grounds are as follows: (1)environments like companies, factories, work centers, and so forth are fundamentally distributed. (2)Downsizing effects not only on weakening central site's computing power but also on increasing role at local sites. (3)However probably the most important reason is to provide a tool to deal with "past sins" most companies already made.

In this paper we propose a point of view to deal with distributed database queries. Queries are decomposed into several transactions as an atomic unit. Such transactions occupy a portion of databases if they are ready to be read or written. Itis FIFO rule with serializablity that dominates in several allocation alternatives among competing transactions, but some kind of scheduling are needed to produce better throughput performance. We analyze the relationship between transaction needs and database, then suggest an algorithm with computational complexity analysis.