Abstract

One of the important issues of distributed system is to improve Concurrency control, I observed that Concurrency Control is very difficult task for distributed systems because of absence of global clock and lack of shared memory. To improve the concurrency control problems in my work, a new modified version of three phase commit protocol is introduced that
works for the sake of concurrency control in distributed systems.

The basis of this protocol is the division of all the sites into two groups depending upon the number of queries generated and importance of the queries at these sites. The sites where more queries are generated are considered as primary sites and those having less, are considered as secondary sites. The Primary sites are given more importance while deciding whether to commit or abort a transaction. In this a modified version of three phase commit protocol is proposed that ensures if a transaction is originated from a primary site then it is bound to commit provided all other primary sites vote to commit, no matter whether secondary sites commit or not and there the advantages and disadvantages of this new version is considered.

It is to be mentioned that this protocol works only for transactions that accesses a single database object. Instances of such transactions could be debiting or crediting a bank account as in this only a single database object such as a personal bank account is accessed.

Reference

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**Index Terms**

Computer Science

Distributed Systems

**Key words**

Concurrency Control

Two-Phase Commit Protocol

Three Phase Commit Protocol

Primary Sites

Secondary Sites