

## A Query Optimization Strategy for Autonomous Distributed Database Systems

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**Abstract :** Distributed database is a collection of logically related databases that cooperate in a transparent manner. Query processing uses a communication network for transmitting data between sites. It refers to one of the challenges in the database world. The development of sophisticated query optimization technology is the reason for the commercial success of database systems, which complexity and cost increase with increasing number of relations in the query. Mariposa, query trading and query trading with processing task-trading strategies developed for autonomous distributed database systems, but they cause high optimization cost because of involvement of all nodes in generating an optimal plan. In this paper, we proposed a modification on the autonomous strategy K-QTPT that make the seller's nodes with the lowest cost have gradually high priorities to reduce the optimization time. We implement our proposed strategy and present the results and analysis based on those results.

**Keywords :** autonomous strategies, distributed database systems, high priority, query optimization

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