Abstract

The query processing in large scale distributed mediations systems raises new problems and presents real challenges: efficiency of access, communication, confidentiality of access, availability of data, memory allocation. In this paper, we propose an execution model based on mobile agents for the distributed dynamic query optimization. In this model, each relational operator of an execution plan is executed by a mobile agent. Also, we embed into agent a migration policy allowing agent to choose an execution site among execution sites of the considered system. The performance evaluation shows that the proposed model improves the response time whatever the variation of estimations errors.

References

- R. AVNUR, J.-M HELLERSTEIN; Eddies: continuously adaptive query processing,
Decentralized Dynamic Query Optimization based on Mobiles Agents for Large Scale Data Integration Systems


N. BRUNO, S. CHAUDHURI; Efficient Creation of Statistics over Query Expressions, Proc. of the 19th International Conference on Data Engineering, IEEE Computer Society, Bangalore, India, March 2003, pp. 201-212.


A. DESHPANDE, J. -M. HELLERSTEIN; Lifting the Burden of History from Adaptive Query Processing, Proc. of the Thirtieth International Conference on Very Large Data Bases, Morgan Kaufmann, Toronto, Canada, August 2004, pp. 948-959.


Index Terms

Computer Science
Information Systems

Keywords

Distributed mediation systems  Query optimization  Cost model  mobile agents