Abstract

A peer data sharing system consists of peers where a database in a peer is designed and administered autonomously. Acquaintances between peers are used to share data among peers. These acquaintances are established through data sharing constraints. Data between peers may be inconsistent with respect to constraints due to the change of constraints (e.g. adding, modifying, and deleting constraints between peers) and data updates in individual peers. One possible solution to resolve inconsistencies is to modify data physically in inconsistent peers through update propagation. This strategy is not practical since peers are autonomous and a peer may not have permission to modify other peers' data. Considering the possible inconsistent situations, this paper discusses a semantics and a technique for obtaining consistent answers. Consistent answers are obtained at query time by avoiding the inconsistent data.

References

Value-Mapped Peer Data Sharing Systems and Consistent Query Answering


Index Terms

Computer Science
Databases

Keywords

Data Interoperability mappings query processing data sharing