Information and Management Sciences
Volume 11, Number 3, pp.31-56, 2000

# Conflict Resolution and Reconciliation in Multidatabase Systems

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## Abstract

A multidatabase system is built upon a number of existing database systems. It requires an interface to allow users to access global heterogeneous information within a reconciled platform as well as to maintain the data consistence and integrity among existing database systems. As a result, a higher level semantic global database schema is needed. The global schema is a single schema derived from a set of autonomous databases by schema integration. This paper presents a new methodology to integrate the independent local database schemas into a global database schema. These schemas are converted from the local databases to Extended Entity Relationship (EER) models. Equivalency of domain, attribute, entity, and relationship are identified between two of these EER models. While a discovery and resolution mechanism by using these equivalent definitions is applied to deal with the naming conflict and structural conflict between two EER models, a reconciled semantic view between the two EER models is established. A semantic merge mechanism by using data analysis technique is also applied to extract more semantics during the merge phase. Two local database schemas are then integrated. These steps are repeated until the schemas of all databases to be integrated have been consolidated into a single global schema.