Abstract

Most of the data available on internet through internet, comes from the databases, known as hidden databases, are now open to various kind of privacy threats. Security issues specific to such hidden databases, however, have been largely overlooked by the research community, possibly due to the false sense of security provided by the restrictive access to such databases. Two of such threats, individual tuple privacy and aggregate information privacy, are being highlighted in this paper, and one of the possible solutions for them is being proposed here. We propose a model, which is divided into two layers to provide security against two described attacks to hidden databases. Our hope is that this paper sheds lights on a fruitful direction of future research in security issues related to hidden web databases.
Dual Layer Privacy Model for Hidden Databases

Reference

[9] Poorvi L. Vora, Member, and IEEE An Information-Theoretic Approach to Inference Attacks on Random Data Perturbation and a Related Privacy Measure

Index Terms

Computer Science Database Security

Key words

Hidden databases
Privacy preservation
Aggregate information
Tuple privacy