Secure Sum based Privacy Preservation Association Rule Mining on Horizontally Partitioned Data

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Abstract

The method of perturbation has been basically studied for the privacy preserving data mining. In this technique, from a known distribution random noise is combined to the private data before forwarding the data to the data miner. Consequently, the data miner constructs again a presumption to the original distribution of data from the perturbed data and the reconstructed distribution is used for the purposes of data mining. The goal of privacy preserving data mining researchers is to introduce techniques of data mining which could be implemented on the databases without breaking the privacy of the persons. Techniques of Privacy preserving for several models of data mining have been suggested, originally for the classification on the organized data then for association rules in the distributed area. This paper suggested a solution for the computing the data mining classification algorithm for the horizontally partitioned data privately without revealing any information related to the sources or data. The given method (PPDM) integrates the benefits of the RSA public key cryptographic system and homomorphic scheme of encryption.
References


Index Terms

Computer Science  Information Sciences
Keywords

Horizontally Partitioned Dataset, Secure Sum, Privacy Preservation, Association Rules.