

Enhance Security in XML Databases: XLog File for Severity-Aware Trust-Based Access Control

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Abstract : The topic of enhancing security in XML databases is important as it includes protecting sensitive data and providing a secure environment to users. In order to improve security and provide dynamic access control for XML databases, we presented XLog file to calculate user trust values by recording users' bad transaction, errors and query severities. Severity-aware trust-based access control for XML databases manages the access policy depending on users' trust values and prevents unauthorized processes, malicious transactions and insider threats. Privileges are automatically modified and adjusted over time depending on user behaviour and query severity. Logging in database is an important process and is used for recovery and security purposes. In this paper, the Xlog file is presented as a dynamic and temporary log file for XML databases to enhance the level of security.

Keywords : XML database, trust-based access control, severity-aware, trust values, log file

Conference Title : ICCIT 2014 : International Conference on Computer and Information Technology

Conference Location : Istanbul, Türkiye

Conference Dates : June 19-20, 2014