A NEW APPROACH TO SECURE THE DISTRIBUTED DATABASE BY USING SQL FIREWALL

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ABSTRACT

This paper present a new approach database security works in a similar manner organization need layers of security around their data, with each layer protecting a specific area. The current trend of security attack is targeting any valuable data stored in a database such as financial data and student mark, including data theft, data modification or replay and data disruption. To understand how the system works, the system setting and the weaknesses of Single Enterprise Database in Distributed Database. This paper is about the design and develop a new framework to secure database access, a framework based on packet and content filtering on IP address, port and SQL statement. And simulate the framework and design database security framework. We address how to build the outcome of this is to reduce the risk of data manipulation and reduce the impact of internal threat and malicious insiders. The result shows that the proposed method succeeded in meeting those aspects of information security.

Key words: Distributed Database, Security, SQL Firewall

1. Introduction

A database is generally defined as a large collection of data organized, especially for rapid search and retrieval, commonly done by a computer. In other word, a database is a structured collection of records. Without going through into types of databases, it is noted that when most people talk about databases, they mean *relational* databases, exemplified by such commercial products as Oracle, Microsoft SQL Server, Sybase, MySQL, or PostgreSQL. Data is stored in relational databases in the form of related tables of records. The relationship between the tables is manifested in the form of linked records. Therefore, a value in one table might be linked to a value in some other table, which is called a *foreign key.* Most popular databases listens on a single port and communicates with the clients on a single port. SQL Server use port 1433, Oracle uses port 1521, DB2 UDB use port 50000 and Sybase use port 4100. These are all default ports and may be changed.

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