

## Design and Implementation of Security Middleware for Data Warehouse Signature, Framework

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**Abstract :** Recently, grid middlewares have provided large integrated use of network resources as the shared data and the CPU to become a virtual supercomputer. In this work, we present the design and implementation of the middleware for Data Warehouse Signature, DWS Framework. The aim of using the middleware in our DWS framework is to achieve the high performance by the parallel computing. This middleware is developed on Alchemi.Net framework to increase the security among the network nodes through the authentication and group-key distribution model. This model achieves the key security and prevents any intermediate attacks in the middleware. This paper presents the flow process structures of the middleware design. In addition, the paper ensures the implementation of security for DWS middleware enhancement with the authentication and group-key distribution model. Finally, from the analysis of other middleware approaches, the developed middleware of DWS framework is the optimal solution of a complete covering of security issues.

**Keywords :** middleware, parallel computing, data warehouse, security, group-key, high performance

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