

Abstract

This final project presents analysis and implementation of algorithms XXTEA on client application and database servers to improve security of transmission query and database query results. XXTEA cryptographic algorithm aims to overcome the security problems of transmission query and query results that are conducted by encrypting data in network. Query from client encrypted before transmits over network and decrypted by server before query is processed. Vice versa, database query results encrypted before transmits over network and decrypted in client.

Technically, use of this algorithm by adding encryption and decryption modules at client and server. By applying this algorithm expected to improve transmission security queries and query results that are not understood by eavesdroppers without reducing the performance of these client and database server. This software is built using Delphi programming language and with tools Borland Delphi 7 and Microsoft Access 2007 database.

This final project conclude that module is successfully encrypt data between server and client for data on the network using cryptographic algorithms XXTEA so that confidentiality and safety can be maintained from tapping.

Keyword : encryption, decryption, client, server, XXTEA, query, database.