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## **Abstract**

During the last few decades there was growth in communication networking. Computer and communication networks enable all the users of the network to transfer files through the network which may contain sensitive information. Therefore we need network security which became an important problem.

This thesis deals with design of a security system that provides privacy and secrecy for exchanging and storing sensitive information through a communication network. A new algorithm (A) was developed and tested.

The proposed system uses symmetric cryptography techniques for securing files and uses asymmetric cryptography techniques for key distribution and provides a good authentication.

The user interface is implemented by Delphi language to provide an interactive user interface.