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A SECURED MODEL FOR TRUSTED COMMUNICATION IN NETWORK USING ZERO INTERACTION AUTHENTICATION

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Abstract

With the cutting-edge technology, people are migrating towards the use of mobile devices. But, unfortunately these devices are susceptible to loss and theft, and they often contain sensitive data that their owner would prefer to keep secure. Protecting these data during loss or theft has motivated us to develop this system. One way to protect data is to use persistent authentication that requires users to authenticate manually which is infrequent. But such an authentication is well suited for personal computers, since they have strong physical security. This results in anxiety between usability and security.

This issue is resolved using ZERO INTERACTION AUTHENTICATION, in which, two systems running on Linux platform, communicates with each other using Bluetooth devices. The client request for authentication. The token, if present within the short-range, will provide the authentication to the client, whom it uses to decrypt the files, otherwise the files get encrypted. Also the client polls for token, just to check for user's presence. Encryption or Decryption is done within few seconds of the user's departure or return respectively. This protects the system before any third party could gain access to the system. Here two criteria play important role namely, Granularity and Transparency.