

## Maintaining User-Level Security in Short Message Service

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**Abstract :** Mobile phone has become as an essential thing in our life. Therefore, security is the most important thing to be considered in mobile communication. Short message service is the cheapest way of communication via the mobile phones. Therefore, security is very important in the short message service as well. This paper presents a method to maintain the security at user level. Different types of encryption methods are used to implement the user level security in mobile phones. Caesar cipher, Rail Fence, Vigenere cipher and RSA are used as encryption methods in this work. Caesar cipher and the Rail Fence methods are enhanced and implemented. The beauty in this work is that the user can select the encryption method and the key. Therefore, by changing the encryption method and the key time to time, the user can ensure the security of messages. By this work, while users can safely send/receive messages, they can save their information from unauthorised and unwanted people in their own mobile phone as well.

**Keywords :** SMS, user level security, encryption, decryption, short message service, mobile communication

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