16. EFFICIENT CIPHER - SMS COMMUNICATION USING CRYPTOGRAPHIC ALGORITHMS

B.Bala Abirami, Dr.G.UmaraniSrikanth
PG Student, Department of CSE HOD, Department of CSE
S. A. Engineering College, Chennai .

Short Message Service (SMS) has become one of the quickest and robust communication channels totransmit the information across the worldwide.Sometimes, there will be a tendency to send the highly secured information like password, private Identity number, banking details and secure code to the friends, relations and service providers through an SMS. SMS messages are transmitted as plaintext between Mobile User (MS) and the SMS Center (SMSC), using wireless network. SMS contents are stored in the systems of network operators and may be read by their personnel. The traditional SMS service offered by various mobile operators surprisingly does not provide information security of the message being sent over the network. In order to guard such confidential information, it is highly required to provide secure communication between end users. The above requirements can be accomplished by proposing a protocol called Cipher-SMS which provides end-to-end security during the transmission of SMS over the network. The Cipher-SMS is the first protocol completely based on the symmetric key cryptography of AES and MD5. It prevents the SMS information from various attacks including SMS disclosure, OTA modification, play back attack, MITM attack, Masquerade.

Index Terms— AES, Authentication Server, Decryption, Encryption, MD5, SMSC.

ISBN 978-81-904760-6-5