Modified RSA in Mobile Communication

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Abstract : The security in mobile communication is very different from the internet or telecommunication, because of its poor user interface and limited processing capacity, as well as combination of complex network protocols. Hence, it poses a challenge for less memory usage and low computation speed based security system. Security involves all the activities that are undertaken to protect the value and on-going usability of assets and the integrity and continuity of operations. An effective network security strategies requires identifying threats and then choosing the most effective set of tools to combat them. Cryptography is a simple and efficient way to provide security in communication. RSA is an asymmetric key approach that is highly reliable and widely used in internet communication. However, it has not been efficiently implemented in mobile communication due its computational complexity and large memory utilization. The proposed algorithm modifies the current RSA to be useful in mobile communication by reducing its computational complexity and memory utilization.