An authentication protocol for mobile cellular network

ABSTRACT

Current cellular telephone system is vulnerable to various attacks. With more complicated equipments, it is possible to receive the ESN and PIN of legal user and use them to commit cellular telephone frauds. Generally, the frauds can be classified into three: subscription fraud, technical fraud, and internal fraud. This paper analyses the frauds in cellular mobile communication and provides an efficient authentication protocol that can be taken to protect the current system.

Keyword: Cellular telephone fraud; Key management; Authentication protocol