

Phone Number Spoofing Attack in VoLTE

Authors : Joo-Hyung Oh, Sekwon Kim, Myoungsun Noh, Chaetae Im

Abstract : The number of service users of 4G VoLTE (voice over LTE) using LTE data networks is rapidly growing. VoLTE based on All-IP network enables clearer and higher-quality voice calls than 3G. It does, however, pose new challenges; a voice call through IP networks makes it vulnerable to security threats such as wiretapping and forged or falsified information. Moreover, in particular, stealing other users' phone numbers and forging or falsifying call request messages from outgoing voice calls within VoLTE result in considerable losses that include user billing and voice phishing to acquaintances. This paper focuses on the threats of caller phone number spoofing in the VoLTE and countermeasure technology as safety measures for mobile communication networks.

Keywords : LTE, 4G, VoLTE, phone number spoofing

Conference Title : ICCNS 2014 : International Conference on Computer Networks and Security

Conference Location : London, United Kingdom

Conference Dates : December 22-23, 2014