REAL−TIME END−TO−END SECURE VOICE COMMUNICATIONS OVER GSM VOICE CHANNEL (ThuPmOR9)

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Abstract :

GSM is the most wide spread mobile communications system in the world. However the security of the GSM voice traffic is not guaranteed especially over the core network. It is highly desirable to have end−to−end secure communications over the GSM voice channel. In order to achieve end−to−end security, speech must be encrypted before it enters the GSM network. A modulation scheme that enables the transmission of encrypted voice and data over the GSM voice channel was designed. A real−time prototype is implemented demonstrating the end−to−end secure voice communications over the GSM voice channel. The modem technology presented facilitates the transmission of encrypted data and an encryption algorithm is not specified. The users may choose an algorithm and a hardware platform as necessary.

Menu