Abstract

The relevance of the topic is due to the development and application of multimedia IP subsystem IMS and its convergence with 4G mobile networks. The concept of IP Multimedia Subsystem (IMS) describes a network architecture, the main element of which is a packet transport network that supports all access technologies and provides implementation of a large number of infocommunication services. For consumers, switching to IMS promises personalized services based on the transmission of speech, text, graphics and video in any combination, creating new services, as well as combining and improving existing ones.

The purpose of this work is to analyze the concept of IP Multimedia Subsystem (IMS), review the technologies that were used in creating the concept, which are used now, and confirm the possibility of providing new services to subscribers of the infocommunication network, when implementing the IMS architecture.

This paper examines the evolution of telecommunications networks, the concept of IMS, which has all the advantages of NGN, but is more modern and convenient for subscribers. The relevance of using IMS in LTE networks is considered. Analysis of the customer service process in IMS. Voice transmission over the Internet Protocol (VoIP). Performance analysis, QoS measures to minimize packet loss and identify connection failures during transmission. IMS security assessment, vulnerability study of the IMS network.