

Research on SIP protocol and its application in VoIP

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Abstract: This topic focuses on an in-depth study of the Session Initiation Protocol (SIP) and an analysis of its prospects in Voice over Internet Protocol (VoIP) systems. The context of the topic is based on the increasingly strong development of VoIP, which requires an efficient protocol to optimize the quality of voice transmission services over networks. The objective is to build a system that supports VoIP call management using SIP. The research methodology includes literature synthesis and experimental implementation on a software platform. The expected results contribute to the understanding of the performance and flexibility of the SIP protocol in VoIP applications, while providing specific solutions to existing problems.

Keywords: SIP, VoIP, call management, audio transmission system, network protocol