

网络、通信、安全

对ICE穿越Symmetric NAT技术的改进

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摘要 ICE (交互式连通性建立) 方案作为一种综合解决方案, 适合各种类型的NAT穿越。但ICE方案针对Symmetric NAT全部采用TURN中继方式进行穿越, 而TURN方式在传输效率上尚有不足。结合端口预测方案P-STUN, 对原有ICE方案进行了改进, 使其获得更多的地址信息, 能够对大部分Symmetric NAT采用UDP直连方式穿越, 解决了上述问题, 有效提高了ICE针对Symmetric NAT穿越的效率。

关键词 [交互式连通性建立](#) [网络地址转换](#) [对称网络地址转换](#)

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Improvement of technology of traversing through Symmetric NAT based on ICE

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Abstract

ICE (Interactive Connectivity Establishment) as a integrated solution can suit every kinds of NAT traversing. But in symmetric NAT case, there are still some disadvantages using the TURN method with not high efficiency. An improved ICE method is put forward based on ICE and concerning the port prediction method, which is able to make ICE obtain more messages of addresses and traverse through most of Symmetric NATs using the way of UDP direct transfer. It will resolve the problem and enhance the efficiency of ICE.

Key words [Interactive Connectivity Establishment \(ICE\)](#) [Network Address Translation \(NAT\)](#) [Symmetric NAT](#)

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