

网络、通信、安全

面向IPsec安全策略的VPN性能评估模型

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摘要 IPsec安全策略复杂的语义增加了IPsec VPN性能分析的难度, 为了解决IPsec VPN性能分析过程中缺乏框架结构而无法保证评估有效性的问题, 提出了基于IPsec安全策略的VPN性能评估模型。模型构建了可扩展的虚拟VPN环境, 通过维护IPsec安全策略提高VPN性能的可控性, 利用多线程并发控制实现数据的并行统计。最后通过实验验证了模型在VPN性能评估中的可靠性和可用性。

关键词 [IPsec协议](#) [虚拟专用网 \(VPN\)](#) [安全策略](#) [性能评估](#) [并发](#)

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IPsec security policy oriented VPN performance evaluation model

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Abstract

The complex semantics of IPsec policies increase the difficulty of VPN performance evaluation, lack of framework in performance analysis of IPsec VPN cannot guarantee the effectiveness of evaluation, to solve this issue, a model of VPN performance evaluation based on IPsec security policy is presented. The model constructs a flexible VPN environment, maintains a volume of IPsec security policies which set the measure to VPN performance, compiles statistics in parallel based on concurrency control of multi-thread. At last, experiment is carried on to verify the reliability and the feasibility of this model.

Key words [IPsec protocol](#) [Virtual Private Network \(VPN\)](#) [security policy](#) [performance evaluation](#) [concurrency](#)

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