

论文

频域过滤DoS攻击方法的研究

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摘要

拒绝服务DoS (DenialofService) 攻击已逐渐成为全世界网络最严重的威胁之一。其攻击方式主要通过连续发送大量的数据包, 耗尽网络资源, 造成连接阻塞。该文采用数字信号处理的方法对DoS攻击进行分析, 并针对其因发送大量数据而具有较大能量的特点, 设计参数FIR滤波器来滤除频谱中含有攻击流量的频率分量, 提高LAR (LegitimatetraffictoAttackedtrafficRatio), 以便有更多的网络资源为用户提供正常的服务。

关键词 [拒绝服务攻击](#) [谱分析](#) [离散傅里叶变换](#) [滤波器](#)

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The Approach of Defending Against DoS Attack in Frequency Domain

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Abstract

DoS (Denial of Service) attacks have become one of the most severe security threats to the global Internet increasingly. It makes the resources of Internet used up and incurs congestion by sending a large number of packages constantly. This paper proposes using signal processing method to analyze DoS attacks. Because of sending mass packages, it must have much more power. For this, the FIR filter is designed to filtering the illegitimate frequencies in frequency domain and the LAR (Legitimate traffic to Attacked traffic Ratio) is improved. Then much more resources and service can be supplied for the users.

Key words [DoS attack](#) [Spectral analysis](#) [DFT](#) [Filter](#)

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