网络、通信、安全

基于免疫学习的文件污染防治机制研究

徐群叁，孙玉娟，徐邦海

鲁东大学 计算机科学与技术学院，山东 烟台 264025

摘要 基于免疫应答机理，提出了一种基于免疫学习的文件污染防治机制。该机制具有学习、记忆、和进化能力，能够自动地形成污染抗体。这些污染抗体存储着文件受污染的最终变化。该机制学习并产生污染抗体，当污染文件出现的时候，利用污染抗体存储的识别策略，能够快速、稳定地识别污染文件。随着多次识别，系统的学习能力和系统响应能力变得越来越强。最后通过仿真实验对系统的防治性能进行了检验。

关键词 文件污染 文件共享 免疫 学习

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Anti-pollution mechanism based on immune-learning to file-pollution in P2P networks

XU Qun-san，SUN Yu-juan，XU Bang-hai

School of Computer Science and Technology，Ludong University，Yantai，Shandong 264025，China

Abstract

Based on the primary-secondary response mechanism and learning，a novel mechanism of anti-pollution for files is presented.This mechanism has the abilities of learning，memory，and evolution，and can learn and produce the antibodies automatically during the period of identifying the polluted files.When the polluted files appear again，the system can identify them rapidly and stably，combined with the conventional algorithm.After the polluted file is identified，a new antibody is produced and stored.Repeating the above process，the system's learning ability and response rate become stronger and stronger.Consequently，the performance of the system can be improved.Simulation results demonstrate that the system performance is stable.

Key words file-polluted file-sharing immune learning

通讯作者 徐群叁 xqsyt@163.com