Statistical, real-time classification of IP traffic in Linux operating system

Temat w języku alternatywnym
Statystyczna klasyfikacja ruchu IP w czasie rzeczywistym w systemie operacyjnym Linux

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Opis
Goal of the thesis is to provide software for Linux operating system which is able to assign IP traffic to pre-defined classes. The software, given number of manually selected samples will automatically extract characteristic features out of them. A real-time packet classifier, basing on the knowledge gathered during learning phase, will be able to tell eg. packet's Class-of-Service (transactional, streaming, etc.) or even name of the program generating the traffic (Skype, Bittorrent, etc.).

Plan pracy
I. Introduction
II. Problem statement
III. Existing solutions
IV. System description
V. Implementation details
VI. System evaluation
VII. Conclusions

Literatura
[1] Arthur Callado, et al., "A Survey on Internet Traffic Identification"
[2] Matthew Roughan, Subhabrata Sen, Oliver Spatscheck, Nick Duffield, "Class-of-Service Mapping for QoS: A statistical signature-based approach to IP traffic classification"
[3] Alessandro Finamore, Marco Mellia, Michela Meo, Dario Rossi, "KISS: Stochastic Packet Inspection Classifier for UDP Traffic"
[4] Gianluca La Mantia, Dario Rossi, Alessandro Finamore, Marco Mellia, Michela Meo, "Stochastic Packet Inspection for TCP Traffic"

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