عنوان مقاله:

Comparison of Machine Learning Algorithms on Internet Traffic Classification

محل انتشار:

دومین کنفرانس بین المللی مهندسی برق و علوم کامپیوتر (سال: 1394)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Zohre Aminikhoei - *University of Kurdistan - Sanandaj - Iran*

Alireza Abdollahpouri - *University of Kurdistan - Sanandaj - Iran*

خلاصه مقاله:

With the rapid growth of Internet users in recent years, Internet traffic is growing strongly. This increment in Internet traffic is also due to the emergence of new applications. Thereby, the identification and classification of traffic is an essential step for network security, network management, and traffic engineering. Traditionally, traffic classification techniques rely on direct inspection of flow packets such as known ports and payload base techniques. These techniques have several limitations such as dynamic port numbers instead of the well-known port numbers and encrypted payload. To improve the traffic classification,ML algorithms with statistical features of the flow have been used recently. In this paper, we use five ML classifiers, which are MLP, SVM, C4.5, Nearest Neighbor and Naïve Bayes. The performance of the algorithms evaluated on the UNIBS data set. Results show that C4.5 gives best performance in terms of classification accuracy, recall as compared to other classifiers

کلمات کلیدی:

Internet traffic, Flow classification, Machine learning