عنوان فارسی مقاله:

یک DFA با مجموعه کاراکترهای توسعه یافته برای بازرگانی سریع و زرف بسته‌ها

عنوان انگلیسی مقاله:

A DFA with Extended Character-Set for Fast Deep Packet Inspection

توجه!

این فایل تنها قسمتی از ترجمه می‌باشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک کنید.
7 Conclusion

In this paper, we investigated a general-purpose processor and regular expressions-based deep packet inspection algorithm, called deterministic finite automata with extended character-set (DFA/EC). Unlike existing state reduction algorithms, our solution requires only a single main memory access for each byte in the traffic payload, which is the minimum. We performed experiments with several Snort rule-sets and synthetic payloads. Experiment results show that DFA/ECs are very compact, they are over four orders of magnitude smaller than a DFA in the best cases, has a smaller memory bandwidth, and runs faster than a DFA. In the future, we will study efficient DFA/EC construction algorithms without using DFA, combine DFA/EC with the existing transition compression and character-set compression techniques, and perform experiments with more rule-sets.