Abstract

Firewalls are core elements in network security. However, managing firewall rules, especially for enterprise networks, has become complex and error-prone. Firewall filtering rules have to be carefully written and organized in order to correctly implement the security policy. In addition, inserting or modifying a filtering rule requires thorough analysis of the relationship between this rule and other rules in order to determine the proper order of this rule and commit the updates.

The project entitled "Firewall Rule Converter" has been taken up to create a tool for converting different firewall rules to a particular format. The basic need for a firewall rule converter arises because it's a vital part in the development of a dynamic firewall.

A dynamically managed firewall is one which is able to handle firewall changes without the need to rebuild the whole firewall.

In our tool we have taken Packet Filter (PF) and Net filter/iptables formats as the input and have converted it into the equivalent Cisco rule format.

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