ABSTRACT

Internet technology has grown so fast in the past few years, and internet already become the way of life for some and many people. With so many people accessing various internet services, a lot of problem occurs, espescially security problems. *Firewall* can overcome those problems, but hardware based firewall are not easy to use and also expensive.

Personal Computer (PC) with Linux installed on it, can act as a firewall and there are so many documentations on how to configure firewall with linux. One of them are tool from Netfilter.org called Netfilter/IPtables. For the rest of the book, we will call it *iptables*.

Iptables can do so many thing, almost as many as an expensive hardware based firewall out there. Iptables can block packet from spesific source or to spesific destination, it can also filter spesific ports, MAC Address, IP address and FQDN, it can also verified the incoming or outcoming packet based on the packet status and also keep a log for all of it. Beside those function, the most widely used function from iptables are the capabilities for doing Network Address Translation (NAT). The simulation shown on this book proves that, although not throughly tested.

PC Linux have another advantages, which are far more cheaper, and its capabilities for doing Bandwidth Management. The tool is called TC (Traffic Control). Together with iptables, they are great combination. The simulation shows that with HTB set to 256Kbps the bitrate we get are 30,74 Kbytes/s. Its not that far for bitrate we get from the theory 32 Kbytes/s. while with 512Kbps we got ~60 Kbytes.

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