

Universiti Teknologi MARA

**Comparative Study Based on DoS
Attack at Network Layer in Wired and
Wireless Network**

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December 2018

STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.

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DECEMBER 3, 2018

ABSTRACT

The Denial of Service (DoS) attack, especially the Distributed Denial of Service (DDoS) attack, has become one of the major threats to the Internet. Generally, attackers launch DDoS attacks by directing a massive number of attack sources to send useless traffic to the victim. The victim's services are disrupted when its host or network resources are occupied by the attack traffic. The threat of DDoS attacks has become even more severe as attackers can compromise a huge number of computers by spreading a computer worm using vulnerabilities in popular operating systems. A survey conducted by the Malaysian Computer Emergency Response Team (MYCERT) Malaysia 2018, the past ten years shown a significant increase of DoS attack up to 20% since 2007. These attacks are done either from wired environment or from the wireless environment. Riverbed Modeler Academic Edition 17.5 and Wireshark Analyser 2.6.4 is used to design and analyse the performance of the network. A comparison of two scenarios is conducted. The first scenario is DoS attack in wired network and the second is DoS Attack in wireless network. Furthermore, the performance of for each scenario are conducted based on the performance metrics of BER, SNR and throughput. Furthermore, these three performances metrics were analysed and the result concluded BER and SNR unable to detect the attack compared to throughput metric.

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