Abstract

The distributed denial of service attack (DDoS) is a major threat to current internet security in MANET. Although the DDoS mechanism is widely understood, its detection is a very hard task because of the similarities between normal traffic and useless packet, sent by compromising host to their victims. Quality reducing attack is a new style of Distributed Denial of Service (DDoS) attack. The goodput and delay performance of TCP or UDP flows are very sensitive to such Quality reducing attacks. In this paper a bottom up detection and prevention techniques for DDoS in MANET has been proposed thereby achieving an efficient quality of services provisioning. Our method relies on the use of monitoring and measurement techniques to evaluate the impact of SYN flooding attacks.

References

- Jie Wang, Raphael C. -W. Phan, John N. Whitley and David J. Parish, "Augmented Attack Tree Modeling of Distributed Denial of Services and Tree Based
Quality based Bottom-up-Detection and Prevention Techniques for DDOS in MANET

- Bin Xiao, Wei Chen, Yanxiang Hez and Edwin H. -M. Sha, "An Active Detecting Method Against SYN Flooding Attack";
- Mieso K. Denko, "Detection and Prevention of Denial of Service (DoS) Attacks in Mobile Ad Hoc Networks using Reputation-Based Incentive Scheme";
- Jeevaa Katiravan, C. Chellappan and J. Gincy Rejula, "Detecting the Source of TCP SYN Flood Attack using IP Trace Back";
- Neeraj Sharma, B. L. Raina, Prabha Rani, Yogesh Chaba and Yudhvir Singh, "Attack Prevention Method Methods for DDOS Attack in MANET";
- Vrizlynn L. L. Thing, Morris Sloman and Naranker Dulay, "Enhanced TCP SYN Attack Detection";
- Wei Chen and Dit-Yan Yeung, "Defending Against TCP SYN Flooding Attacks Under Different Types of IP Spoofing";
- L. Kavisankar and C. Chellappan, "CNoA: Challenging Number Approach for uncovering TCP SYN flooding using SYN spoofing attack";
- Maciej Korcze´nski, Lucjan Janowki and Andrzej Duda, "An Accurate Sampling Scheme for Detecting SYN Flooding Attacks and Portscans";
- Haining Wang, Danlu Zhang and Kang G. Shin "Detecting SYN Flood";
- Steven J. Templeton and Karl E. Levitt, "Detecting Spoofed Packets";
- Qiming Li Temasek, Ee-Chien Chang and Mun Choon Chan, "On the Effectiveness of DDoS Attacks on Statistical Filtering";
- Shashank Lagishetty, Pruthvi Sabbu and Kannan Srinathan, "DMIPS - Defensive
Mechanism against IP Spoofing;
- Changhua Sun, Chengchen Hu, Yachao Zhou, and Xin Xiao, Bin Liu, "A More Accurate Scheme to Detect SYN Flood Attacks;"
- Jarmo Molsa, "Mitigating DoS Attacks against the DNS with Dynamic TTL Values;"

Index Terms

Computer Science
Security

Keywords
DDoS attack  TCP SYN flood attack  TTL