Abstract

Mobile Ad Hoc Networks are more vulnerable to attacks. Due to vulnerability, security in MANETs has been an issue of prime importance in the recent years. The common attack prevention techniques such as cryptographic techniques (Authentication/Digital Signatures) cannot be implemented in MANETs as there is no central controlling device for authentication. This necessitates the need for some other security mechanisms to prevent/detect various types of attacks in MANETs. One such mechanism is to implement Intrusion Detection System. Intrusion Detection System (IDS) has been widely studied in the past and continues to be focus of research in the recent years. This paper summarizes the most prominent IDS Architectures for MANETs published in the last five years. The summary includes brief descriptions of IDS architecture, IDS Techniques (Detection Engines), Types of Attacks detected and Data gathering techniques, followed by the author’s comments on strength, weaknesses and limitations of each technique. Further, a comprehensive table is presented including all summarized papers, at a glance, lists salient features and author’s comments for each technique to facilitate new researchers to select a specific area for their work.
A State of an Art Survey of Intrusion Detection System in Mobile Ad-hoc Network

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Index Terms
Computer Science
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Keywords

MANET (Mobile Ad hoc networks)  IDS (Intrusion Detection System)  AODV (Ad hoc On-demand Distance Vector)

DSR (Dynamic Source Routing)

NS2 (Network Simulator2)