A Comparative Study of Secure Intrusion-Detection Systems for Discovering Malicious Nodes on MANETs

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Abstract

In recent years, security has become a most important service in Mobile Adhoc Network. Compared to other networks, MANETs are more vulnerable to various types of attacks. In this paper, a comparative study of Secure Intrusion-Detection Systems for discovering malicious nodes and attacks on MANETs are presented. Due to some special characteristics of MANETs, prevention mechanisms alone are not adequate to manage the secure networks. In this case detection should be focused as another part before an attacker can damage the structure of the system. First this paper gives an overview of IDS architecture for enhancing security level of MANETs based on security attributes and various algorithms, namely RSA and DSA. Then a hybrid cryptography IDS to further reduce the network overhead caused by digital signature is indicated.

References

- EAACK – A Secure Intrusion Detection System for MANETs Elhadi M. Shakshuki, Senior Member, IEEE, Nan Kang and Tarek R. Sheltami, Member, IEEE
- Investigating Intrusion and Detection Systems in MANET and Comparing IDSs for
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- A study of different types of attacks on multicast in mobile ad hoc networks.
Index Terms

Computer Science Mobile Networks

Keywords

Mobile Adhoc Networks (MANETs) Secure Intrusion-Detection Systems (SIDS)
malicious nodes