Energy Efficient Robust Approach to Detect and Prevent Gray-Hole Attack in MANET

Abstract

Mobile Ad-hoc Network (MANET) is typical wireless ad hoc networks which don't have any fixed topology due to the mobility of the nodes. The nature of these networks is dynamic and don't have any pre-existing security infrastructure to prevent various routing attacks and to protect from malicious nodes. There are mainly two approaches to isolate security threats in MANET, Proactive and Reactive. Proactive methods are based on various cryptography techniques which takes more bandwidth and resource such as battery power. Our approach is basically a simple and robust Reactive method than different security solution to prevent Black-Hole and Gray-Hole attack by detecting malicious nodes dynamically. In our schema the range of verification is wider than the previous available approaches, so the possibility of correct decision is maximized yet the resource utilization and unnecessary packet transfer is minimized.

References

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Index Terms

Computer Science    Networks
Keywords

MANET, Security, Malicious nodes, Reactive, Routing attacks, Simple, Robust, Attack Strategy