Abstract

Regarding accelerating development of mobile sensor nodes technology, increasing the utilization of them, and also facing with security challenges in these networks; specially clone nodes attack, this paper focuses on exploiting optimum criteria of node clone intrusion detection procedures in mobile wireless sensor networks by using experimental analysis of procedures. Since many of recommended protocols in this area have not been experimentalised, also no comprehensive study has been performed on the possibility and capability of these procedures; in this paper all types of sensor network architecture, with the presence of mobile sensor node, are analyzed. Then according to the type of architecture, the procedures of clone node intrusion detection is classified and meticulously scrutinized. Besides, due to measuring the efficiency, exploiting the optimum parameters and also appraising the expenses of procedures, via using OMNeT++ simulator, these procedures are analyzed by comprehensive simulation. Finally, the conclusion based on theoretical analysis and simulation is presented.


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Index Terms

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