Ant Colony Traceback for Low Rate DOS Attack

Abstract

Denial of service is one of the most common threats on the public open networks like Internet which taken up by spoofing in the IP address source and leads to exploit the system resources. This results in a decline in the system performance and normal response. In this paper, the traceback to intruder approach by ant colony algorithm will be applied. And the variance of flow will be used to traceback the Denial Of Service or DOS attack source based on ant colony and metaheuristic algorithms. The simulation results show that the proposed approach can trace the attacks even if the attack traffic intensity is relatively low and by initializing the algorithm parameters correctly. Our simulations show that the probability of errors will reach to its lowest rate or even to zero and this is considered as an effective step in tracing attacks by means of metaheuristic algorithms.
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References

Index Terms

Computer Science

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Keywords

Denial Of Service  Ant Colony  Traceback  Metaheuristic Algorithms  Network Traffic