Tracers Placement for IP Traceback against DDoS Attacks

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Abstract

This paper explores the tracers deployment problem for IP traceback methods how many and where the tracers should be deployedin the network to be effective for locating the attack origins. Theminimizing the number of tracers deployment problems dependedon locating the attack origins are dened. The problem is proved tobe NP-complete. A heuristic method which can guarantee that thedistance between any attack origin and its rst met tracer be within an assigned distance is proposed. The upper bound for the probability of an undetected attack node can be calculated in advanceand used to evaluate the number of tracers needed for the proposedheuristic method. Extended simulations are performed to study theperformance of the tracers deployment.

Keyword：DDoS, IP tracerback, Tracers