Data Aggregation Security Challenge in Wireless Sensor Networks

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Abstract :

Data aggregation in wireless sensor networks (WSN) is a rapidly emerging research area. It can greatly help conserve the scarce energy resources by eliminating redundant data thus achieving a longer network lifetime. However, securing data aggregation in WSN is made even more challenging, by the fact that the sensor nodes and aggregators deployed in hostile environments are exposed to various security threats. In this paper, we survey the current research related to security in data aggregation in wireless sensor networks. We have classified the security schemes studied in two main categories: cryptographic based scheme and trust based scheme. We provide an overview and a comparative study of these schemes and highlight the future research directions to address the flaws in existing schemes.

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