Abstract

Wireless Sensor Networks comprise of innumerable small sensors that have limited resources. As wireless sensor networks are usually deployed in remote and unfriendly environment to transmit sensitive and crucial information, sensor nodes are vulnerable to node compromise attacks. Security issues such as data confidentiality and integrity which are of utmost importance need proper consideration in WSN. Hence, wireless sensor network protocols, as data aggregation protocol, must be designed keeping secrecy in mind. The work aims to use software agents to introduce security features in an agent based environment which is known as Secured Directed Diffusion using Mobile Agents (SDDMA). It extends the IDDMA approach by adding encryption to it. This will help to determine the sequence of target nodes to be visited by the Mobile Agent along with the encrypted data.
Secured Directed Diffusion using Mobile Agents


- Kemal Akkaya *, Mohamed Younis; A survey on routing protocols for wireless sensor networks; Elsevier B. V., 2003
- Nick Jennings, Michael Wooldridge; Software Agents; IEE Review, pp 17-20, January 1996.
- Yashpal Singh1, Kamal Deep2 and S Niranjan3; Multiple Criteria Clustering of Mobile Agents in WSN; International Journal of Wireless & Mobile Networks (IJWMN) Vol. 4, No. 3,
- Suat Ozdemir, Yang Xiao; Secure data aggregation in wireless sensor networks: A comprehensive overview; Elsevier B. V., 2009.
- Mitsuru Oshima, Guenter Karjoth; Aglets Specification (1.0); IBM May 20th, 1997
- S. John; Wireless Sensor Networks; Department Of Computer Science, University Of Virginia, June 19, 2006.
- V. Kunchakarra; Simulation study of routing protocols in wireless sensor networks; Department of Computer Science, Osmania University, Dec. 2005.

**Index Terms**

Computer Science

Security

**Keywords**

Mobile Agent Directed Diffusion  Wireless Sensor Networks  Secure Data

Aggregation

Cryptography