Abstract

In the emerging world, in a resource constrained network like mobile ad hoc network, the mobile agent is becoming a favorable option for creating applications like service discovery, network discovery, automatic network reconfiguration etc. due to its astonishing features like autonomy and mobility. The joint venture of the two technologies mobile agent and mobile ad hoc network is contributing towards an ameliorate communication. There are diverse issues that are associated with mobile ad-hoc networks like the unexpected change in topology, mobility, power constraint, bandwidth limitation etc. A mobile agent is one of the solutions to conquer these challenges. A mobile agent interacts with the node in a better way and provides enhanced options for the developers to design applications based on the disconnected network. Although mobile agents take advantages over the general client-server applications, still, the mobile agents are at high-security risks due to its mobility and autonomy. The various security solutions are there to secure the mobile agents. But not all the security solutions precisely work in the mobile ad-hoc network because the network is unpredictable and subject to dynamic change in topology. The paper intends to review the vulnerabilities associated with mobile agents when
applied in the mobile ad-hoc networks and studies the various approaches to overcome the risks associated with mobile agents.

References


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**Index Terms**

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**Keywords**

Mobile ad-hoc networks, mobile agents, security, trust based techniques, cryptography.