

A SURVEY PAPER ON SECURITY ENHANCEMENT IN WIRELESS AD-HOC NETWORKS

T. CHALAMA REDDY, M. GIRI AND R. SHESHADRI

Abstract

Ad-hoc networks are an emerging area of mobile computing. There are various challenges that are faced in the Ad-hoc environment. These are mostly due to the resource poorness of these networks. They are usually set up in situations of emergency, for temporary operations or simply if there are no resources to set up elaborate networks. Ad-hoc networks therefore throw up new requirements and problems in all areas of networking. The solutions for conventional networks are usually not sufficient to provide efficient Ad-hoc operations. The wireless nature of communication and lack of any security infrastructure raise several security problems. In this paper we attempt to analyze the demands of Ad-hoc environment. We focus on three areas of Ad-hoc networks, key exchange and management, Ad-hoc routing, and intrusion detection. The key issues concerning these areas have been addressed here. We have tried to compile solutions to these problems that have been active areas of research.

Keywords: Ad-hoc networks, key exchange and management, ad-hoc routing, and intrusion detection