

A NEW COMPARISONS STUDY OF THE PERFORMANCE OF ROUTING PROTOCOLS FOR MOBILE GRID ENVIRONMENT

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Abstract

Mobile grid computing is a new computing paradigm which connects classic grid computing and mobile computing paradigm to provide dependable, seamless, pervasive access to mobile resources and services. It can use the underlying connectivity and routing protocols defined by MANET in order to perform resource discovery and access. Since nodes in the mobile ad hoc networks (MANETs) move freely and randomly, routes often get disconnected. The major challenge for MANETs is therefore to implement routing protocols that must respond to changes in the network topology in order to maintain and reconstruct the routes in a timely manner as well as to establish reliable routes. This paper presents the results of simulation done in identifying suitable ad hoc routing protocols that can be used for the target mobile grid application. The simulation study includes comparison of ad hoc routing protocols of DSDV, DSR, AODV and GSRA.

Keywords: Mobile grid, Adhoc routing protocols, NS-2