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A Low Overhead Ad Hoc Routing Protocol with Route Recovery

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Abstract

Many routing protocols have been designed for Ad Hoc networks. However, most of these kinds of protocols are not able to react fast enough to maintain routing. In the paper, we propose a new protocol that repairs the broken route by using information provided by nodes overhearing the main route communication. When links go down, our protocol intelligently replaces these failed links or nodes with backup ones that are adjacent to the main route. Experimental results show that our protocol finds a backup route around 50% of cases and achieve better (or as good) in term of the packet delivery rate than the major Ad Hoc routing protocols, but with much less overhead.