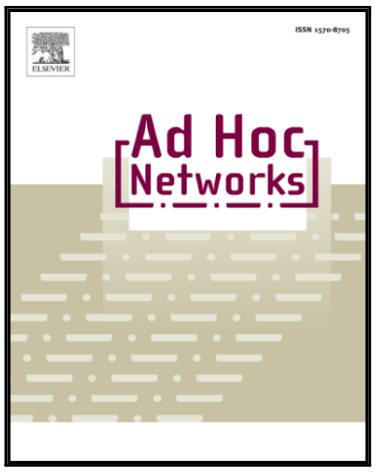

MobiVNDN: A Distributed Framework to Support Mobility in Vehicular Named-Data Networking

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MobiVNDN: A Distributed Framework to Support Mobility in Vehicular Named-Data Networking

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Abstract

In this work, we propose MobiVNDN, a distributed framework for Vehicular Named-Data networking (VNDN) communications. MobiVNDN focuses on mitigating the degradation of communication performance caused by mobility and wireless communications in VNDN. MobiVNDN simultaneously addresses the effects of several problems including broadcast storms, message redundancy, network partitions, reverse path partitioning and content source mobility. Simulation results show that MobiVNDN is robust and efficient and that it outperforms other solutions from the literature. MobiVNDN also performs well when sharing the wireless communication medium with multiple applications.

Keywords: Vehicular Named-Data networking, Vehicular Ad-hoc networks, Information-Centric networking, Mobility.

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