Performance Evaluation of Distributed Mobility Management Protocols: Limitations and Solutions for Future Mobile Networks.

Mobile Internet data traffic has experienced an exponential growth over the last few years due to the rise of demanding multimedia content and the increasing number of mobile devices. Seamless mobility support at the IP level is envisioned as a key architectural requirement in order to deal with the ever-increasing demand for data and to efficiently utilize a plethora of different wireless access networks. Current efforts from both industry and academia aim to evolve the mobility management protocols towards a more distributed operation to tackle shortcomings of fully centralized approaches. However, distributed solutions face several challenges that can result in lower performance which might affect real-time and multimedia applications. In this paper, we conduct an analytical and simulated evaluation of the main centralized and proposed Distributed Mobility Management (DMM) solutions. Our results show that, in some scenarios, when users move at high speed and/or when the mobile node is running long-lasting applications, the DMM approaches incur high signaling cost and long handover latency.

Fuente de la publicación:

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Enlaces
[1] http://www.hindawi.com/journals/misy/2017/2568983/ [2] https://doi.org/10.1155/2017/2568983