Abstract

Wireless communication plays a significant role in our life as it provides mobility and flexibility as well as scalability. Handoff delays make a serious problem. A lot of research has been done in last few years to reduce the handoff delays occur in the different levels of wireless communication. Due to the mobility of devices handoff is an important aspect in WLAN and cellular communications and in WLAN this aspect is much more important due to limited range...
of APs, WLAN also provides sufficient bandwidth for real time streaming services. In the literature a number of handoff schemes have been proposed to reduce the handoff latency and support fast handoff in IEEE 802.11 wireless networks. In this article, we review these fast handoff schemes and analyze their advantages and disadvantages qualitatively. Our aim is to make available groundwork for future research on reducing the handoff latency for intelligent transport systems (ITS) in vehicular scenarios and give emphasis on requirement of fast handover for seamless connectivity. We comprise here various techniques to reduce handoff delays. Some future research ideas are also suggested here.

References

- Y. Liao, L. Cao, “Practical schemes for smooth MAC layer handoff in 802.11 wireless networks,” IEEE International Symposium on World of Wireless, Mobile and
Multimedia Networks, 2006
- V. Brik, A. Mishra, S. Banerjee, "Eliminating handoff latencies in 802.11 WLANs using Multiple Radios: Applications, Experience, and Evaluation, IMC 2005
- Venkata M. Chintala and Qing-An Zeng, "Novel MAC Layer Handoff Schemes for IEEE 802.11 Wireless LANs"; Wireless Communications and Networking Conference,
- Debabrata Sarddar, Tapas Jana, Tarasankar Patra, Utpal Biswas, M. K. Naskar
"Fast Handoff Mechanism in WLANs Based on Neighbour Graph Information"; Parallel Distributed and Grid Computing (PDGC), 2010 1st International Conference, Publication Year: 2010, Page(s): 334 – 338.

**Index Terms**

Computer Science
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**Keywords**

IEEE 802.11 Wlan, Handoff; Access Point, Handoff Latency, Selective Scanning, Neighbor Graph