Abstract

With the increased penetration of LTE and LTE-Advanced into the telecommunication market, many efforts have been made to increase the wireless coverage and extend it to previously inaccessible environments. Femtocells have been introduced in order to provide such coverage amelioration for regions where connectivity is reduced due to interference and signal attenuation issues. In this paper, we introduce a decision policy that takes into account the mobility aspect by considering the velocity of mobile stations and their cell-residence time in order to lessen excessive handoff and improve the overall network performance.

References

A Novel Velocity-based Handoff Decision Policy for LTE Femtocell Networks

- Guillaume de la Roche, Alvaro Valcarce, David Lpez-Prez, Jie Zhang, Access Control Mechanisms for Femtocells, IEEE COMMUNICATIONS MAGAZINE, JULY 2009
- LTE The UMTS Long Term Evolution: From Theory to Practice Stefania Sesia, Issam Toufik and Matthew Baker 2009 John Wiley and Sons.
- Assen Golaup, Mona Mustapha, and Leo Boonchin Patanapongpibul, Vodafone Group, Femtocell Access Control Strategy in UMTS and LTE, FEMTOCELL WIRELESS COMMUNICATIONS.
- Leon, Jaime Pena, and all. &quot;Per-energy capacity and handoff strategies in macro-femtocells environment;&quot;, 2012 IEEE Wireless Communications and Networking Conference Workshops (WCNCW), 2012.

Index Terms

Computer Science Communications

Keywords
LTE Handoff Femtocell velocity energy bandwidth