Refined approaches for traffic sharing in enterprise LTE femtocells

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Abstract:

In cellular networks, traffic demand is unevenly distributed both in time and space. This paper investigates the problem of re-distributing traffic demand between Long-Term Evolution (LTE) femtocells in an enterprise scenario. Several traffic sharing algorithms based on automatic tuning of femtocell parameters are considered. The proposed algorithms are implemented by fuzzy logic controllers. Performance assessment is carried out in a dynamic system-level simulator. Results show that tuning handover margins and transmit power can be an effective means to solve localized congestion problems in these scenarios.
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