## Call admission control based on resource sharing in LTE-Advanced relay system

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**Abstract:** We have proposed a call admission control in LTE-Advanced relay system which is based on resource sharing. Each cell has 7 sites, including 1 eNB and 6 relay stations, if the shared resources are used up for handover users and new users in the requested site, handover users can use the reserved resources of the requested site, while new users can utilize the resources of other sites in the same cell. Simulation results show that our proposed algorithm can effectively reduce the dropping rate of handover users and blocking rate of new users when compared with the conventional ones and, in the meantime, improve the system resource utilization.



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