

# New Call Admission Control Method of the CDMA PCS System

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## Abstract

This paper proposes a new call admission control method to enhance the reverse link capacity of a cell with heavy traffic in the CDMA PCS system under the uneven traffic load between cells. Since the capacity of a cell in the CDMA system is restricted by the total interference caused by terminals in the own cell and the adjacent cells, we can enhance the capacity of a cell by reducing the interference from other cells if possible. Our power control method allows that the signal powers received in base stations with heavy traffic be larger than those received in base stations with light traffic in order to make the interference due to other cells in the cells with heavy traffic relatively small. In the previous study, it was assumed that the signal power received by each base station in the CDMA PCS system is same when the call admission control algorithm is implemented. We could show that the reverse link capacity of a cell in the CDMA PCS system can be increased about 20% under our call admission control method.