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Title: Mobile communication energy base station

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What are the standardized energy-saving metrics for a base station?

(1) Energy-saving reward: after choosing a shallower sleep strategy for a base station, the system may save more energy if a deeper sleep mode can be chosen, and in this paper, the standardized energy-saving metrics are defined as (18) $R_{i e} = E_{S M = 0} E_{S M = i} E_{S M = 0} E_{S M = 3}$

What is base station dormancy?

In response to the problem of high network energy consumption caused by the dense deployment of SBS, the base station dormancy technique is seen as an effective solution, as it does not require changes to the current network architecture and is relatively simple to implement. This technique was first proposed in the IEEE 802.11b protocol .

Why do base stations waste so much energy?

When there is little or no communication activity, base stations typically consume more than 80% of their peak power consumption, leading to significant energy waste . This energy waste not only increases operational costs, but also burdens the environment, which is contrary to global sustainability goals .

What are base station sleep strategies in 5G UDN?

In 5G UDN environments, the use of base station sleep techniques is one of the most widely used methods to reduce power consumption. In this paper, two types of base station sleep strategies are distinguished: threshold-based base station sleep strategies and adaptive base station sleep strategies. 2.1. Threshold-based base station sleep strategy

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