Base station power sleep technology

Can a base station sleep strategy reduce energy consumption in UDN systems?
The goal of this paper is to find a base station sleep strategy in UDN systems that reduces the total system energy consumption while being able to guarantee QoS.

How does the SBS manage the base station sleep strategy?
The SBS manages the base station sleep strategy and power allocation based on the corresponding rate demands of all UEs. As a result,each SBS can evaluate all UEs comprehensively,thereby improving the transmission rate for each UE and achieving a higher overall achievable rate.

What is adaptive base station sleep strategy?
Adaptive base station sleep strategy Adaptive base station sleep strategy is a strategy that dynamically adjusts the sleep and wake-up states of the base station based on real-time network conditions, user demands, and traffic modes.

Does a base station sleep strategy affect EE?
This is because this paper proposes a base station sleep strategy that directly impacts EEand enhances the ratio of the overall system transmission rate to power consumption. In the final EE results are better than the other two methods.

To enhance system efficiency and establish green wireless communication systems, this paper investigates base station sleeping and power allocation strategy based on ...

In this paper, we propose a small base station sleeping control scheme in heterogeneous dense small cell networks based on federated ...

As the primary source of energy consumption in communication networks, the power usage of 5G base station(BS) is a significant concern. The sleep mode (SM) of BS can ...

In the progress of 5G wireless cellular network the heterogeneous network plays an important role. In this paper energy consumption is investigated. First, the placement of Small Base ...

To reduce the extra power consumption due to frequent sleep mode switching of base stations, a sleep mode switching decision algorithm is proposed. The algorithm reduces ...

In this paper, we propose a small base station sleeping control scheme in heterogeneous dense small cell networks based on federated reinforcement learning, which ...

Green communications (GC) is an urgent need for 5G and 6G. How to realize GC with guaranteed quality of service is still a challenging problem. This paper investigates the ...

In response to these challenges, base station sleep technology is increasingly seen as a promising solution [3]. Nonetheless, several current base station sleep algorithms depend ...

Base station (BS) sleeping is an effective approach to reduce the power consumption of the network, by switching some of the BSs to a low-power "sleep mode" during ...

Change Log This document contains Version 1.0 of the ITU-T Technical Report on "Smart energy saving of 5G base station: Based on AI and other emerging technologies to ...