Maximum number of users per base station in 4G communication

How to plan a 4G LTE network?

Therefore, the planning and optimization algorithms should be highly efficient, advanced, and robust. An important component of 4G LTE network planning is the proper placement of evolved node base stations (eNodeBs) and the configuration of their antenna elements.

What is the maximum bandwidth of a single carrier unit?

Considering the backward compatibility of LTE system,the maximum bandwidth of a single carrier unit is 20M Hzin the LTE-A system. All carrier units will be designed to be compatible with LTE,but at this stage it does not exclude the considerati on of non - backward compatible carriers. f carriers.

How cellular networks affect base station placement?

The proposed method explores the combined impact of strong cellular networks influencing parameters,such as capacity,coverage,and transmit powerin the base station placement process. A genetic algorithm-based approach is selected as an optimization technique,because it can produce a robust and good set of optimal solution spaces.

Can genetic algorithms optimize base station placement in cellular networks?

This work proposed and applied a field measurement-based genetic algorithms approach to optimize base station placement in cellular networks. The proposed method explores the combined impact of strong cellular networks influencing parameters, such as capacity, coverage, and transmit power in the base station placement process.

The authors looked at the placement of various user distributions in the target area after selecting the parameters used for ...

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Capable of serving up to 64 active users at a download data rate of up to 150Mb/s, the Base Station delivers

high speed, reliable, and secure 4G LTE connectivity for distances up to 9 miles.

I"m trying to find out how many simultaneous connected devices can handle a typical LTE 4G or 3G public cell site. I know my question sounds broad, but i"am developping an mobile ...

This letter addresses the stochastic modeling of the number of users per BS. An approximate characterization available in the literature is discussed, and a new asymptotic characteriza-tion ...

BTS is a part of a base station (BS). Though the term BTS can be applicable to any of the wireless communication standards, it is generally associated with mobile communication ...

Abstract: We consider the number of users associating with each base station in a cellular network. Extending and unifying the characterizations for certain settings available in ...

This section presents the design of the base station placement model, maximization of service coverage areas, maximization of the covered user capacity, ...

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Generally, results revealed that the system capacity increases compared to the standard approach with three sectors per site. The adaptive variable-length genetic algorithm ...

In the LTE-A FDD system, the terminal can be configured to aggregate different bandwidth, different number o f carriers. For TDD LTE-A systems, the number of uplink and downlink ...

A particular cellular system has the following characteristics: cluster size =9, uniform cell size, user density=100 users/sq km, allocated frequency spectrum = 900-945 MHz, bit rate required ...

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