Number of users communicating with the base station at the same time

Why are base stations important in cellular communication?
Base stations are important in the cellular communication as it facilitate seamless communication between mobile devices and the network communication. The demand for efficient data transmission are increased as we are advancing towards new technologies such as 5G and other data intensive applications.

What is a base station?
Network Coverage: Base stations cover a given part of the earth. Various base stations are set up in such a way that forms a network to encompass all areas of the city, region or even an entire country.

What are the benefits of a base station?
Power Efficiency:The energy-efficient base stations are contributing to minimize the operational expenditure and the environmental impact. Internet of Things (IoT): In light of the popularity,base stations assist in connecting several sensors from different types to smart devices and machines that are connected to a network.

Why are base stations an inevitability?
These types of objects are an inevitability since they serve the purpose of providing signal transfer for data and voice between mobile mobiles. The idea of base stations is anchored in their function to provide coverage,capacity,and connectivity,hence allowing for extending the working capabilities of mobile phones and other radio gear.

A number of nodes that are interested in the same content can be grouped into a cluster and the cluster head can be used to relay the content received from the base station (BS) to the cluster ...

In this paper, we study the buffer behavior of base stations in a 5G mobile network at steady state. We consider a cellular mobile network consisting of finite number of users ...

Jung-Hoon Noh Member, IEEE, and Seong-Jun Oh Senior, IEEE Abstract--In this study, we investigate the operation of user-number threshold-based base station (BS) on/off ...

Thank you Edit: I am aware that in dense area, network operators "simply" reduce cell radius and deploy more base station, but the number of cells in an area is usually chosen ...

30 time for a PDSCH from the base station based on the at least one value; determining a capability of the user equipment by comparing the processing time with a ...

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 the ...

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Explore in-depth technology metrics for 5G systems, comparing key specifications across base stations, uplink CPEs, and user devices to understand network design and ...

Time is a crucial factor for decision making, especially in environments where it is necessary to provide a high quality of experience for the users and at the same time make ...