

How to divide the sectors of the EMS of the communication base station

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What factors determine the location of a base station?

The location of the base station within the cell is determined by a number of factors, including topography and other physical constraints such as trees and buildings, the cell 'capacity' or number of calls expected to be made in the cell, and the radio frequency at which the base station will operate. top Topography and physical constraints

Can a call be transferred from one base station to another?

Calls can be transferred from one base station to another. As you move out of the cell, the phone will automatically look for signal from an adjoining base station. There is usually a smooth transition or 'handover' from cell to cell. During the duration of a call, the phone may have handed over to and from a number of base stations.

How does a base station work?

A base station is made up of antennas connected by cable to electronic (radio) equipment usually housed in a room or 'shelter'. Some base stations have radio communications dishes (shaped like a drum) that connect the base station to the rest of the base station network.

How many calls can a base station carry?

Mobile Network Cell capacity Each base station can only carry a finite number of calls. In areas of high mobile phone use, such as central business districts and high density areas, more base stations are required to handle the level of call traffic.

The MTSO sets up a circuit between the calling and the called BSs. At the same time, the MTSO selects an available traffic channel within each BS's cell and notifies each BS, which in turn, notifies its ...

In reality in today's systems, the cells are the red hexagons, with the cell sites or base stations at the corners. Rather than referring to a "three-sectored cell," it is more appropriate to refer ...

As shown in Figure 4, the coverage area of the station can be divided into 3 sectors with 120 o antenna angle. Each sector can be considered as a new cell, with its own frequency channel...

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For a sector, configuring one to two carriers is typically sufficient. For example, an S 1/1/1 configuration describes three sectors with one carrier each, resulting in three cells.

To prevent handoffs and dropped calls, umbrella cells are needed (p67) for high speed traffic. Many new base stations are needed, increasing system complexity and load of MSC. The cell is divided into ...

Another method is to add more base stations and this is what is known as Cell Sectoring. In cell sectoring, each cell is subdivided into radial sectors with directional BS antennas in order to ...

Cell Splitting is the process of subdividing a cell into smaller cells each with its own Base Station. On splitting, new cells with smaller radius are added called microcells.

Each sector can be considered as a new cell, with its own (set of) frequency channel (s). The base station can either be located at the corners of the original (large) cell.

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