2G, 3G Network Planning and Optimization...

Archives

Live

Постоянные читатели

четверг, 1 октября 2009 г.

4.6 Distance Control Parameters

4.6.1 Call Clearing

I. Definition

Call clearing (CallClearing) means that the maximum allowed distance threshold is cleared between MS and base station in talk.

II. Format

CallClearing ranges from 0 to 63, with unit of TA.

III. Configuration and Influence

Configure CallClearing according to actual coverage range of a cell. Proper configuration of CallClearing helps check whether the handover threshold of the cell is properly defined, especially for urban cells.

If the call is frequently cleared after CallClearing threshold is defined according to cell radium, probably the handover threshold is improperly configured. This is due to that the MS cannot hand over to the best server cell after exceeding designed coverage range.

Define CallClearing according to msRangeMax, namely, CallClearing > msRangeMax.

In actual network operation, call clearing is unusually performed, because radio link fails due to over poor coverage before call clearing. Defining CallClearing aims to restrict the distance between MS and base station and to avoid MSs in allowed coverage range to interfere other MSs, especially in areas with complex landform.

The cell coverage range is irregular, so island effect might occur. For this phenomenon, define CallClearing to clear calls in island areas.

4.6.2 TA Handover Threshold (MSRANGEMAX)

I. Defintion

When the distance between MS and base station reaches or exceeds MSRANGEMAX, distance handover is triggered.

II. Format

MSRANGEMAX ranges from 0 to 63, with unit of TA. The reference is 63.

III. Configuration and Influence

MSRANGEMAX must be smaller than CallClearing, and otherwise the handover function will be actually unavailable. While configuring MSRANGEMAX, you must adjust the threshold of other types of handover; otherwise ping-pong handover occurs. one occasion might be as follows:

The distance between MS and the serving cell exceeds the threshold, but the signals of target cell are weaker than that of original cell. Consequently the PowerBudget handover is triggered immediately after distance handover is triggered.

4.6.3 TA Restriction (MS_BS_DIST_USED)

I. Definition

The maximum allowed access distance between base station and MS. If the distance between an MS and base station exceeds the maximum allowed access distance, the MS is forbidden to access cells.

II. Format

The range is 0 to 63, with unit of TA. The reference is 63.

III. Configuration and Influence

For its configuration, refer to the method for configuring CallClearing. Adjust the parameter to enable it consistent with the geographic coverage range of the cell. Set a proper threshold to filter pseudo RACH requests to avoid unnecessary assigning SDCCH.

According to tests, for mountain-mounted base stations, the coverage and interference is difficult to control. If you define the maximum allowed access distance to 63, the RACH misjudgment increases (the system demodulates interference to RACH bursts by mistake). Therefore the radio performance and traffic measurement indexes of the cell are affected.
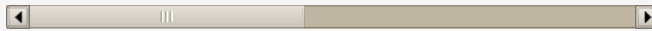
Автор: ourdot на 1:13

0 коммент.:

Отправить комментарий

Подпись комментария: Выбрать профиль...

Отправить комментарий   Просмотр

Подписаться на: Комментарии к сообщению (Atom)