

(R4-010973, to TSG-RAN) LS on 3GPP Vocabulary document TR 21.905

Title: LS on 3GPP Vocabulary document TR21.905

Source: TSG RAN WG4

To: TSG RAN, TSG SA WG1, TSG GERAN

Contact Person

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## **1. OVERALL DESCRIPTION**

TSG RAN WG4 thanks TSG SA WG1 and a rapporteur of 21.905 for the the document R4-010633 dated 21st – 25th May 2001. During the WG4 meeting #17 in Gothenburg the document R4-010633 was presented and a CR S1-010366 was risen to the vocabulary document to incorporate the proposed modifications. Vocabulary document TR 21.905 was discussed in TSG RAN WG4#18 in Berlin. TSG RAN WG4 would like to inform the outcome of its discussions concerning the term 'Base Sation'.

## **2. INTRODUCTION**

In RAN4 LS S1-010285 three open points were pointed out:

- 1- Base Station;
- 2- Cell;
- 3- Time Division Duplex UTRA access mode 1.28 Mcps option.

To solve the first open point a new definition of Base Station was presented in tdoc R4-010633. It has been added to the vocabulary and it reads:

“

***Base Station:*** *A base station is a macrocell, microcell or picocell site and consists of transmitters generating radio frequency electromagnetic energy and receivers in a cabin or cabinet. A base station is connected to antennas by feeder cables.”*

## **3. DISCUSSION**

After reviewing this document the following conclusions were made:

- *"A base station is a macrocell, microcell or picocell site"* . In the current Base station classification document TR25.951 there is a definitions only for the Wide area and Local area base stations. If macrocell, microcell and pico were to be defined, they most likely would have to cover all situations. In such case there would be no need to define explicitly cell size or type in the definition.

- *"A base station is a ... site"* . Term "site" is misleading in this context, because one site can have several base stations.
- *"consists of transmitters generating radio frequency electromagnetic energy"* . It is not necessary to define radio frequency to be electromagnetic energy.
- *"and receivers in a cabin or cabinet."* A base station can comprise of one or many cabinets. On the other hand, base station (especially small, indoor) can also be made into other types of enclosures.
- *"A base station is connected to antennas by feeder cables."* . A base station can also have internal antenna so it is not always connected to antenna by feeder cables.

#### 4. CONCLUSION

TSG RAN WG4 has considered the definition of term 'Base Station'. Because the presented content could be misleading it has agreed the following definition for the base station:

***Base Station:*** *"A base station is a network element in radio access network responsible for radio transmission and reception in one or more cells to or from the user equipment. A base station can have an integrated antenna or be connected to an antenna by feeder cables. In UTRAN it terminates the  $I_{ub}$  interface towards the RNC. In GERAN it terminates the Abis interface towards the BSC."*

This definition is common enough and it defines the function of the base station clearly. It is valid for the cases where the user equipment and the base station can be either fixed or mobile.

TSG RAN WG4 is asking GERAN and TSG SA WG1 to review this definition and comment on it in case they find some problems.

#### 5. DATES OF COMING RAN WG4 Meetings:

R4 #19                      3<sup>rd</sup> - 7<sup>th</sup> September 2001 in Scotland.  
R4 #20                      12<sup>th</sup> - 16<sup>th</sup> November 2001 in USA.