

Agenda Item: 15.3

Source: Nortel Networks

Title: Addition of NodeB and NodeB Control Port objects in Resource Status Indication message

Document for: Approval

1 Introduction

This contribution presents a way to explicitly exhibit the hierarchical relations between NodeB logical objects in the Resource Status Indication message and introduces two new objects in this message:

- NodeB
- NodeB Control Port

2 Rational

In the current definition of Iub interface, messages on the interface for logical resource setup always allow NodeB to link the new logical resource with its father object.

Example:

In the Common Transport Channel Setup Request message, the Cell Identifier is given to allow the Node B to link the new Common Transport Channel with an existing cell object.

We propose to exhibit these objects dependencies in the Resource Status Indication message.

Example:

We propose to add a Cell Id before each Common Transport channel state.

BCH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O

The UMTS network operator needs to have a clear vision of all the NodeB logical resources availability to be able to identify hardware failure impacts or O&M action impacts on these logical resources, including the NodeB logical object itself. Moreover, in case of multiple NodeB Control Port (this point is still FFS in [R3]), the RNC will have to know the availability of each NodeB control port for redundancy or load sharing management purpose and reporting to the OMC-R.

We propose to add these two objects in the Resource Status Indication message.

3 Resource Status Indication

This message is sent from the Node B to the CRNC to notify the CRNC of the status of the resources at Node B.

Information Element	Reference	Type
Message Discriminator		M
Message Type		M
Indication Type (FFS)		O
Resource Impact		M
NodeB ID		O
Resource Operational State		M
Resource Availability Status		O ¹
NodeB Control Port ID		O
Resource Operational State		M
Resource Availability Status		O
Cell ID		O
Resource Operational State		M
Resource Availability Status		O
BCH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O
PCH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O
FACH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O
RACH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O
DSCH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O

¹ The availability status is optional when the resource works properly with its full nominal capacity (operational state = disabled)

USCH ID		O
Cell ID		M
Resource Operational State		M
Resource Availability Status		O
Traffic Termination Point ID²		O
Resource Operational State		M
Resource Availability Status		O
Communication Control Port ID		O
Traffic Termination Point ID		M
Resource Operational State		M
Resource Availability Status		O
Transaction ID		M

NOTE:

- The resource objects defined above is an initial list only. The addition or removal of further objects is ffs.
- The reporting of all the states of all objects or only states of objects which have changed using this message is

² It is proposed to add Traffic Termination Point object in [R4]

4 Proposal

- Replace section 9.1.30 of [R1] with section 3 of this contribution

5 Reference

- [R1] : TS 25.433 – NBAP Specification V.1.2.1, Source: Editor
- [R2] : CCITT Rec. X.731: Information technology - open systems interconnection – system management: state management function
- [R3] : TS 25.430 - V .0.1.2
- [R4] : R3-99c71 : Node B Capacity management on Iub interface, Source: Nortel Networks