

Agenda Item: 13.1
Source: Siemens/Italtel
Title: Amendments to 25.430 in support of “Standalone” USCH/DSCH
Document for: Approval

1. Introduction

In the document TS 25.430 ‘Iub Interface: General Aspects & Principles’ [1], the Shared Channel aspects of the Iub interface have been considered partially, however the description is not yet complete with respect to the “Standalone” shared channels USCH and DSCH, which have for now been specified for the UTRA TDD mode. (The term “standalone” means that these Shared Channels can exist “alone”, without a DCH/DCH pair, because they do not depend on the availability of a DPCH for the respective UE, see e.g. [2]). This paper proposes the required amendments to the specification 25.430 in support of the Standalone USCH/DSCH.

2. Proposed Changes

The proposed changes to [1] are listed below with textual changes shown *in italics*:

Section 4.4 Iub Interface Capabilities; a new sub-section for USCH should be added:

4.4.6 Iub USCH data stream (TDD only)

The Iub interface provides the means for transport of uplink shared channel, USCH, data frames between NodeB and RNC. The USCH Iub frame body comprises of data received over the radio interface.

Section 4.5 Iub Interface Characteristics; a new bullet point for USCH should be added:

USCH (TDD only)

- *One Iub USCH data stream is carried on one transport bearer.*

In **Section 5.1 Iub Functions;** an additional entry for USCH should be added:

8. Traffic Management of Uplink Shared Channels (TDD Only)

Channel Allocation / De-allocation

Measurement Reporting

Transport Channel Management

Data Transfer

In **Section 5.2 Functional Split over Iub;** an additional entry showing that scheduling of USCH and DSCH occurs at the CRNC:

5.2.11 Shared Channel Scheduling

The scheduling of DSCH access (and USCH access for TDD) occurs at the CRNC using demand information from the SRNC (and from the UEs for USCH in TDD) .

Section 6.2.2.3 Traffic Termination Point: In case of TDD, the DSCH port is not UE related and hence not included in the Traffic Termination Point. This implies the following revised wording:

Traffic Termination Point represents DCH, *as well as DSCH (for FDD)* data streams belonging to one or more Node B Communication Contexts (UE contexts), ...

Section 6.2.2.7 Iub FDD DSCH Data Port; *the restricting Note should be deleted:*

Section 6.2.2.8 Iub TDD DSCH Data Port: Since there can be more than one TDD DSCH Data Port per cell, which are – in contrast to the FDD case – not included in the Traffic Termination Point, the current text should be changed to:

An Iub TDD DSCH Data Port represents a user plane bearer carrying one Iub TDD DSCH Data Stream between the Node B and the RNC. For each DSCH there is one Iub TDD DSCH Data Port with data multiplexed on this DSCH.

Section 6.2.2.9 Iub TDD USCH Data Port; the existing text should be updated to allow for more than one USCH data ports per cell (same change as for TDD DSCH data port), as follows:

An Iub TDD USCH Data Port represents a user plane bearer carrying one Iub TDD USCH Data Stream between the Node B and the RNC. For each USCH there is one Iub TDD USCH Data Port with data multiplexed on this USCH.

Section 6.2.4 Common Channels; the attributes list of a Common Channels should be extended to include USCH:

- *List of associated Iub USCH Data ports for the USCH (for TDD).*

3. References

- [1] 25.430 V0.1.4 UTRAN I_{ub} Interface: General Aspects and Principles
- [2] TSGR2#6(99)915: UE states in TDD