

Status Report for SI to TSG

Study Item Name: Analysis of OFDM for UTRAN enhancement

SOURCE: Rapporteur (Sarah Boumendil, Nortel Networks)

TSG: RAN **WG:** 1

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Ref. to SI sheet: RAN_Study_Items.doc

Progress Report since the last TSG (for all involved WGs):

RAN1 #30:

- ?? An agreement was reached on the OFDM parameter sets to be used for the performance evaluation. Two sets have been selected and added to the technical report TR25.892 "Analysis of OFDM for UTRAN enhancement".
- ?? Another variant of OFDM termed IOTA was also presented and discussed.
- ?? A revised text proposal for tutorial sections of the TR was presented and discussed. It was submitted afterwards on the reflector with minor changes according to the comments for inclusion in the TR after the next meeting.
- ?? Simulation methodology was discussed again, and it was decided that it should be revised (to add traffic models and a few other details) and posted on the reflector 3 weeks before RAN1 #31.
- ?? Other contributions discussing OFDM interleaving and the choice of a preferred advanced WCDMA receiver scheme for the study were presented and discussed.

RAN1 #31:

- ?? The revised TR, including details on the OFDM parameter sets, was presented and agreed [1].
- ?? The revised text proposal for the tutorial sections of the TR was presented and accepted with minor changes.
- ?? Text proposals clarifying the time structure for one of the parameter sets and presenting basic concepts related to IOTA were presented and agreed for inclusion in the TR.
- ?? The revised simulation methodology document was discussed. Parts of the documents pertaining to link and system level simulation assumptions, traffic models etc. were accepted for inclusion in the annexe of the TR.
- ?? Other text proposals discussing physical layer structure, multiplexing and spectrum issues, and contributions discussing modulation diversity and WCDMA MMSE receiver modelling were also presented.
- ?? The updated TR including all of the accepted text proposals will be posted on the reflector to review the changes prior to next meeting.

List of Completed elements (for complex work items):

- ?? Documentation of OFDM fundamentals
- ?? Sets of reference parameters
- ?? Link and system level simulation assumptions

List of open issues:

- ?? Some elements of simulation methodology (e.g. HARQ modelling)
- ?? Release 5 channels to be carried by the OFDM carrier
- ?? Physical Channel definition and mapping of transport channels onto physical channels
- ?? Performance evaluation
- ?? Compatibility and impact evaluation

Estimates of the level of completion (when possible):

30%

SI completion date review resulting from the discussion at the working group:

Currently RAN#20 (June 2003). Proposal from rapporteur is to move the completion date to RAN#22 (Dec03)

References to WG's internal documentation and/or TRs:

[1] R1-030312, TR25.892, Analysis of OFDM for UTRAN enhancement, version 0.1.0 as accepted in RAN1 #31.