

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 #37:

- Frequency re-use aspects were discussed, corresponding text proposal was included in the TR
- Mobility and handover aspects were discussed and a text proposal was agreed for inclusion in the TR
- Impacts on the UL and impacts to L2 and L3 protocols were discussed, corresponding text proposals were included in the TR.
- Design of OFDM signalling channels was discussed, corresponding text proposal was included in the TR.
- Compatibility with WCDMA carriers was discussed, corresponding text proposal was included in the TR.
- It was agreed that cell search and synchronization could be obtained from the associated WCDMA cell. OFDM based methods are left open in the TR (methods were presented but not agreed for inclusion).
- Link level results for coloured inter-cell interference for pedestrian A and B channels were included in the TR, after agreement reached on the fact that EESM accurately models realistic interference scenarios.
- System level results including the modelling of node B impairments were included in the TR for WCDMA and OFDM.
- Finally the conclusion for the TR was approved (around midnight!)

List of Completed elements (for complex work items):

- Documentation of OFDM fundamentals
- Simulation methodology and assumptions
- Basic system-level evaluation (ideal channel estimation)
- Analysis of required OFDM physical channels
- Performance for the OFDM-CPICH with channel estimation
- Node B impacts
- Aspects of UE impact: RF functionality and data demodulation
- Synchronisation
- Inter-cell interference (modelling and analysis) and related frequency re-use aspects
- Mobility / handover
- Impact evaluation for UL and L2/L3 protocols
- Performance with Node B impairments

List of open issues:

- None

Estimates of the level of completion (when possible):

95%

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

RAN#24 (June 04)

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

[1] R1-040655, TR25.892, Analysis of OFDM for UTRAN enhancement, version 1.2.0.