

Source: 3GPP TSG RAN WG1

Title: Liaison to 3GPP RAN WG2, WG3 and WG4 on TDD DCA

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Agenda Item: 10

In order to understand and specify the TDD mode DCA functions more detailed WG 1 asks for TSG RAN WG4 to provide their expertise on the UE interference measurements associated with DCA. The performance and limitations of the scheme are in the scope of the interest. More in detailed information is requested on particular co-existence scheme measurement performance that is needed to provide minimum co-existence rules for the system deployment. This requested information is expected to be reflected to the S1.25 Measurements (TDD) document.

For TSG RAN WG2, more detailed information is requested about protocol issues that require physical layer procedures supporting the DCA. These could be such issues as channel pre-reservation prior to the handover and DCA termination point. Also all the other available information about DCA associated protocol issues is needed. This information is reflected to S1.24 Physical layer procedures (TDD) document, which additional measurements have to be provided in addition to the measurements already needed for handover measurements.

The TSG RAN WG3 should comments on the issues of DCA location on the network side. For example the issue of the relationship and feasibility of centralized vs. non-centralized DCA systems.

Especially WG1 has to understand the terminal and system complexity needed by DCA for the following cases that timeslots (TS) assignment for uplink and downlink is

1. Static (variation at long term basis possible) and the same asymmetry among contingent cells
2. Static (variation at long term basis possible) but the asymmetry among contingent cells are independent
3. Time varying and the asymmetry among contingent cells are independent

The possible measurement types depend greatly on the selected resource allocation strategy. The measurement can be either power or code power measurement (done after despreading). The requirements of the L1 measurement are different in the case of UL and DL measurements.

Another specific question addresses the dynamic, varying nature of the asymmetry. If the asymmetry changes frequently this affects the number of required measurements and reports to BTS made by UE to make DCA perform well.